Maternal, Infant, and Early Childhood Home Visiting Needs Assessment Narrative

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Introduction

The purpose of this needs assessment is to describe the state of voluntary, evidence-based early childhood home visiting services for pregnant women and parents of children from the prenatal period to kindergarten entry across the state of Minnesota. Early childhood home visiting (known as "family home visiting" (FHV) in Minnesota) is a type of family support in which trained home visitors provide social, emotional, health-related, and parenting support and information to families, and link them to community resources. By building ongoing and consistent relationships with families, home visitors become a trusted source of information and support for families in the areas of health, education, safety, and parenting.

Evidence-based home visiting models have been shown to have a positive impact on preterm birth, low birth weight infants, school achievement, child maltreatment, and parental substance use.[1,2] FHV programs consistently demonstrate cost effectiveness, with an estimated $2 to $4 return on every dollar invested.[3] Positive economic returns include a reduction in healthcare costs and utilization of government assistance programs, as well as improvement in educational attainment and earnings.[3]

As directed by the Health Resources and Services Administration (HRSA), this needs assessment has the following mandates:

1. **Identify at-risk communities**: Use quantitative methodology to identify the counties in our state where families with young children face the greatest risks.
2. **Identify the quality and capacity of existing home visiting programs**: Assess how many families are being served, the gaps in early childhood home visiting in the state, and the extent to which home visiting programs are meeting the needs of eligible families.
3. **Examine the capacity for providing substance use disorder (SUD) treatment and counselling services for pregnant women and families with young children**: Assess the availability of substance use services in the state, gaps in service delivery, barriers to service receipt, and opportunities to improve equitable access to substance use treatment.
4. **Coordinate with needs assessments of other early childhood services**: Take into account findings from the state's Title V Block Grant, Early Head Start (EHS), and Child Abuse Prevention and Treatment Act (CAPTA) Needs Assessments.

FHV programs serve some of the most vulnerable children and families. To help families thrive, FHV programs must be grounded in health equity approaches. Health equity approaches assert that all people should have a fair and just opportunity to be as healthy as possible.[4] Achieving health equity "requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care" (p. 12).

On average, Minnesota ranks among the healthiest states in the nation; however, there are many groups that experience much poorer health than others, such as American Indian, Black

or African American, low income, and rural communities.[5] Health equity can only be achieved by improving the health of vulnerable or marginalized groups, and thus reducing health disparities. Examples of historically marginalized and/or disadvantaged groups include people of color, people with physical or mental disabilities, people living in poverty, and women.[4]

We recognize that inequities in health will only be reduced by addressing the multifaceted causes of health disparities; thus, we aim to attend to issues of health equity throughout this needs assessment. The Minnesota Department of Health (MDH) Center for Health Equity has outlined a multifaceted approach to eliminating health disparities that includes naming the effects of structural racism, looking for resilience, valuing the many identities that people hold, collaborative leadership, community driven decision-making, and equity-informed policymaking.[6] The quantitative methodology for assessing risk to children and families used in this needs assessment includes many factors known to contribute to health disparities. For example, there is a wide body of research linking poverty to poorer health across the lifespan.[7,8] A limitation of this needs assessment is that some drivers of health disparities are not included in the data, such as systemic racism and indicators of resilience.

MDH will use this needs assessment to 1) promote the health and wellbeing of families with young children by identifying the communities most in need and 2) examine the state's current capacity to serve them with evidence-based and culturally appropriate home visiting programs. This information will allow the state to continue to work to reduce health disparities for vulnerable families by targeting future funding towards the populations with greatest need.[9]

Identifying Communities with Concentrations of Risk

As prescribed by HRSA, we used quantitative methods to determine the communities in Minnesota where families with young children are at greatest risk for poor outcomes. The domains of concern as outlined in the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) statute, are those that are known to affect families' ability to promote children's wellbeing during the early childhood period: socioeconomic status, adverse perinatal outcomes, SUD, crime, and child maltreatment. For the purposes of this analysis, HRSA has designated the county as the unit of analysis. Therefore, all data were examined at the county level. However, there are 11 federally-recognized sovereign American Indian nations that reside within Minnesota, and many of these nations cross county borders. Variations in data collection and reporting sometimes systematically exclude information about American Indian people. We endeavored to represent American Indians in the counties that overlap their communities. In some instances where lack of reliable data persists, we noted these limitations.

We designated at-risk counties in three phases. In Phase I, we used information and data provided by HRSA (Tables 1-6) combined with Minnesota-specific data to determine the counties where families with young children face the greatest risks. In Phase II, we applied a health equity approach to examine racial and ethnic disparities in four indicators of perinatal risk. In Phase III, we targeted areas of Minnesota that exist across multiple counties or places where county data were often pooled at a multi-county level which may have affected county

identification in Phases I and II. At the end of this three-phase process, 47 of the 87 counties in Minnesota were identified as at-risk. See Table 7: 2020 MIECHV Needs Assessment: At Risk Counties for a list of at-risk counties. Table 8: Counties At-Risk by Each Phase describes in which phase each county was identified. Table 9 provides examples of formulae. Figure 1 depicts at-risk counties.

Phase I

In Phase I, we considered data provided by HRSA and from several state agencies, including the Department of Health (MDH), Department of Human Services (DHS), Department of Employment and Economic Development (DEED), and other sources. When state-level data were determined to be more recent, more specific, more reliable, or of higher quality, we used those data instead of data provided by HRSA. We consistently used the most recent available data, except when required to use multiple years in order to obtain sufficient sample sizes. In some cases, we included indicators that were not provided by HRSA but were available for our state and contributed to a more complete understanding of the domain. Domains and indicators can be found in Table 2: Description of Indicators, and are described in detail below. Seventeen counties were identified as at-risk in Phase 1.

Socioeconomic Status

The socioeconomic status domain has six indicators: high school dropout rate, income inequality, unemployment, poverty, childhood poverty, and Medicaid births. HRSA-provided data from the American Community Survey[10,11] was used for the high school dropout and income inequality indicators. For counties with small populations of high school students, small changes from year-to-year in the number of dropouts can result in large differences in dropout rates. To address this limitation, we used five-year estimates (from 2013 to 2017) of the percent of 16- to 19-year-olds not enrolled in school and without a high school diploma for counties with populations less than 65,000 people and one-year estimates (2017) of this rate for counties with populations greater than 65,000. The five-year rate is less susceptible to minor fluctuations and a better reflection of the true rates for less populous counties.

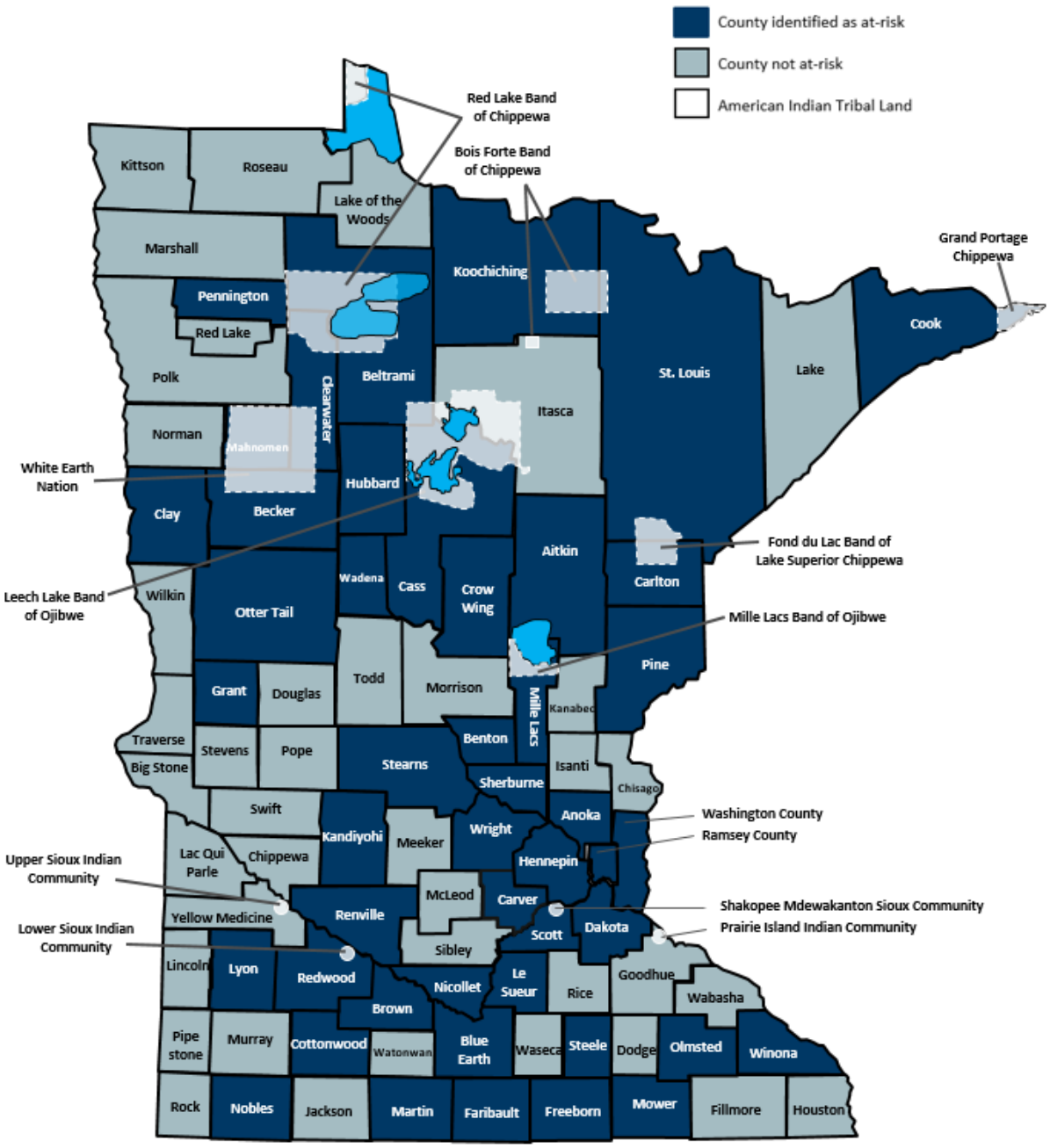
For the income inequality indicator, Gini coefficient data were used.[12,13] The Gini coefficient is a statistical measure of income disparity used to assess the impact of income inequality on many types of outcomes. Inequality in income distribution among a population has been shown to have a stronger impact on child health outcomes than household income.[14] The Gini coefficient is frequently used in public health needs assessments and aligns with the hypothesis that population health outcomes worsen when income inequality increases.[15] For this indicator, we again used one-year estimates (2017) for counties with populations greater than 65,000 and five-year estimates (2013 to 2017) for counties with populations less than 65,000.

Unemployment data obtained from DEED[16] were more recent than the data provided by HRSA. These data describe the percent of the civilian labor force in 2018 who were unemployed.

HRSA-provided data were used for the poverty indicator. Data represented the percent of the population living below 100% of the federal poverty line in 2017 from the Census Small Area Income and Poverty Estimates (SAIPE).

Figure 1

At-Risk Counties



Percent of children living in poverty was added to this domain and was obtained from the 2017 SAIPE program from the US Census Bureau.[17] We added this indicator because it allowed us to focus on children living in poverty and represents the population that MIECHV is statutorily mandated to serve.

For the same reason, percent of births funded by Medicaid was added to this domain. Data were obtained from the 2017 MDH County Health Tables.[18]

Adverse Perinatal Outcomes

The adverse perinatal outcome domain has two indicators: preterm birth and low birth weight. MDH Vital Records data from 2013-2017 were used for both indicators.[19] The preterm birth data were the percent of live births less than 37 weeks gestation and the low birth weight data were the percent of live births of newborns weighing less than 2500 grams.[20]

Substance Use Disorder

The SUD domain has four indicators: alcohol, marijuana, opioids, and methamphetamines. SUD data came from the Minnesota DHS Drug and Alcohol Abuse Normative Evaluation System (DAANES).[21] Data provided by HRSA were older (2012-2016) and available at a regional rather than a county level, obscuring county-level variation in risk. The DAANES data were preferable because they were more recent and they captured admissions to substance use treatment centers for multiple substances for each county. The DAANES data were from 2017-2018 and included the number of substance use treatment admissions in a calendar year per 1,000 people for alcohol, marijuana, methamphetamines, and/or heroin and other opioids. These substances were identified because they reflect the substances of highest concern in our state based on recent substance misuse trends.

For each substance used in a county, the weighted total number of admissions was calculated as 1*(number when substance is primary) + 0.5*(number when substance is secondary) + 0.25*(number when substance was tertiary) to give a final number of admissions by county for each substance. Then, the total number of admissions by substance was divided by the population of each county. Populations were obtained from the Minnesota Demographic Center and are sum values for each county for 2017 and 2018. This number was then multiplied by 1000 to get the number of SUD treatment admissions per 1000 people for each substance in each county. Notably, Mahnomen County was an extreme outlier for all four types of substance use and was therefore excluded when calculating the mean and standard deviation in order to avoid skewing the data.

Child Maltreatment

The child maltreatment domain has only one indicator, rate of alleged victims in determined maltreatment cases children per 1000 child residents (ages birth to 17 years). Child maltreatment data were obtained from the Minnesota DHS 2017 Child Maltreatment Report, published in November 2018.[22] We used these data because they were more recent than data provided by HRSA.

Two American Indian nations, White Earth Nation and Leech Lake Band of Ojibwe, have responsibility for their own child maltreatment processes, while cases in the other nine nations are the domain of the co-resident counties. Child maltreatment cases for these two communities were reported by the tribes, and needed to be apportioned to their co-resident counties, in order to make an appropriate comparison between counties. Each American Indian nation overlaps multiple counties, so cases were allocated proportionally based upon the population distribution of American Indian children in co-resident counties. Using 2015 census tract level data from the American Community Survey, we determined the population of American Indian children living in the co-resident counties for the two tribes and assigned each county a proportion of the total. The number of maltreatment cases for each tribe was multiplied by the proportion of American Indian children in the co-resident counties. Next, this value of maltreatment cases was added to the number of cases reported by the county. Rates of child maltreatment were recalculated for these counties. Of note, population totals in the original data from MN DHS already include American Indian children, so these data were not changed.

Crime

The crime domain has two indicators: total crimes and juvenile arrests. Both indicators were provided by HRSA and came from the Uniform Crime Reporting (UCR) Program for the year 2016.[23,24] There are some limitations in how UCR data are reported for American Indian communities; however, we were unable to locate any other sources of data that do not suffer from the same flaws, so we retained these data.

For the total crimes indicator, all reported instances of crimes that occurred inside American Indian nations in the state were reported as an aggregate number, rather than being attributed to the county that shares the same land. Thus, we were unable to know how many crimes occurred in each county. Therefore, crimes that occurred inside American Indian nations are not included in this indicator, so crime rates in counties with significant American Indian populations are artificially low.

For juvenile arrests, instances that occurred in American Indian nations were reported separately from the rest of the co-resident county, but the reporting agency was identified so it is possible to allocate juvenile arrests that occurred in these communities to the counties in which they likely happened. To allocate these juvenile arrests to their respective co-resident counties, census tract maps were used to determine where American Indian lands overlapped with counties. Many tribes occupy more than one county. In these cases, population distributions for American Indian youth were calculated using ACS[25] population data at the census tract level, and then juvenile arrest events were allocated to counties according to this distribution.

Phase II

The process suggested by HRSA which was utilized in Phase I successfully identified many counties where families with young children are believed to be at increased risk. However, examining data at the county level often masks significant health disparities between groups of

people that live in the same county. A potential solution for this problem would be to examine smaller units of data such as neighborhoods. However, most of the indicators used are not available for units smaller than the county, so this technique was not feasible for most data. Furthermore, given that Minnesota consistently ranks as one of the healthiest states in the nation, but also has large disparities between White residents and communities of color,[26] we chose to focus the second phase of our identification of at-risk communities on perinatal health disparities in communities of color.

In Phase II, we examined racial and ethnic disparities in four critical indicators of perinatal risk: preterm birth, low birth weight, births funded by Medicaid, and births to teen parents. MDH Vital Records data from 2013-2017 were used for all measures.[19] Racial and ethnic groups that were examined were Black or African American, American Indian, Asian/Pacific Islander, Hispanic or Latino, and non-Hispanic White. Rates for each perinatal indicator were calculated for each racial/ethnic group in each county. Disparity ratios were calculated in a manner consistent with previous work by the Center for Health Statistics at MDH.[27] The rate for each racial/ethnic group was compared to the rate for the racial/ethnic group that was the lowest for that indicator, within each county, which was usually, though not always, non-Hispanic White. In order to protect privacy, data were suppressed in counties where the outcome numbered fewer than 10 individuals for a specific subpopulation, per the data reporting policy of the National Center for Health Statistics.[28] For each racial or ethnic group, the five counties with the highest disparity ratios for each of the four indicators were selected. Several counties evinced disparities for multiple racial/ethnic groups and/or multiple indicators; after eliminating duplicates, 31 counties remained. Of these 31 counties, nine were already designated as at-risk based on Phase I, and 22 additional counties were unique to Phase II.

For low birth weight, Black or African American women had the highest disparity ratio, with women in some areas being two and a half times as likely as White women to have a low birth weight baby. In counties with the highest disparities, Hispanic or Latina women were 2.2 times as likely and American Indian women were twice as likely to have a low birth weight baby, as compared to non-Hispanic white women.

Racial and ethnic disparities in preterm birth were also evident across the state, particularly for Hispanic or Latina, Black or African American, and Asian/Pacific Islander women. It is notable that these disparities and the groups with the lowest rates of preterm birth varied among counties. For example, while Hispanic or Latina women were disproportionately likely to experience a preterm birth in some parts of the state (disparity ratio of 2.4 compared to Black or African American in Steele County and disparity ratio of 2.0 compared to non-Hispanic White women in Brown County), Hispanic or Latina women also had the lowest rates of preterm birth in other counties, such as in Wright and Freeborn counties. Similarly, Black or African American women had the lowest rates of preterm birth in some counties, such as Steele County mentioned above, but had faced the highest disparity in preterm births in Wright County (disparity ratio of 2.3) compared to Hispanic or Latina women, who had the lowest rates of preterm birth in this county. Asian/Pacific Islander women were also disproportionately likely to have a preterm birth in parts of the state, with disparity ratios as high as 2.5 compared to Hispanic or Latina women in Freeborn County, for example.

For Medicaid births, Black or African American women had the highest disparities, and non-Hispanic White women were the reference group. In some counties, Black or African American women were five times as likely as non-Hispanic White women to have their births covered by Medicaid.

The five counties with the highest disparity ratios for teen births were all located in the Twin Cities metropolitan area. In Hennepin and Dakota Counties, American Indian women face the highest teen birth disparity ratios at 11.1 and 10.2 respectively. Hispanic or Latina women in Scott, Carver, and Washington Counties experience the next highest disparity ratios at 6.8, 6.6, and 6.4, respectively.

Phase III

The purpose of this phase was to examine areas where MDH leadership is aware of complex risk factors that did not surface in Phases I and II, including poverty and foster care placement rates.

County level measures may have been insufficient for identifying risk associated with poverty in our state. Some cities in Minnesota overlap multiple counties, and therefore the poverty burden of the citizens in those cities may be masked.

To examine poverty at the city or town level, we used poverty data from ACS reported for all census designated places (CDPs).[29] We examined all CDPs where more than 20% of the population is living below poverty level. We further limited our examination to where there are more than 100 children under five living in poverty, because communities smaller than this are unlikely to be able to support an evidence-based home visiting program. This method identified seven cities and two CDPs: Brainerd, Bemidji, Mankato, Redby, Red Lake, St. Cloud, St. Joseph, Virginia, and Wadena. Of these cities, Brainerd (Crow Wing), Bemidji, Redby, Red Lake (Beltrami County), Virginia (St. Louis County), and Wadena (Wadena County) are located in counties already identified in Phase I or II. St. Joseph is located in Stearns County, which had not yet been identified. Mankato and St. Cloud each overlap three counties. Mankato is in Blue Earth, Nicollet, and Le Sueur counties, while St. Cloud is in Stearns, Benton, and Sherburne counties. In order to serve these communities with substantial numbers of young children in poverty, all ten of these counties were designated as at-risk.

Next, we chose to examine the number of children under the age of six in foster care, using the Minnesota Early Childhood Risk, Reach, and Resilience report.[30] This report identified six counties as being at high-risk, or more than one standard deviation above the mean, for the number of children under six years of age in foster care. Of these six counties, four were identified in Phase I or II: Beltrami, Mille Lacs, Pine, and St. Louis. Two counties, Faribault and Martin, were not previously designated at-risk, and were added to our list of at-risk counties in this phase.

How the Identified Counties Reflect Risk in Minnesota

The 47 counties identified as at-risk represent a broad geographic distribution across the state of Minnesota. According to urban definitions based on Census Places, Hennepin, Ramsey, Dakota, Scott, Washington, Anoka, and Carver are considered urban counties and comprise a

single metropolitan statistical area for the purposes of this report.[31] Additionally, while St. Louis and Olmsted counties include the cities of Duluth and Rochester, respectively, the rest of these counties are predominantly rural. Two cities, St. Cloud and Mankato, intersect three counties each (Stearns, Benton, and Sherburne, and Nicollet, Blue Earth, and Le Sueur, respectively) and those counties don't have other urban centers. All other counties on the final list are rural communities.

While the quantitative process undertaken in Phase I identified many counties where families appear to be at greatest risk, it did not fully account for racial or ethnic disparities experienced across the state, as is evidenced by the fact that only five counties (Becker, Beltrami, Carlton, Pine, and Ramsey) were identified as at-risk in both Phase I and Phase II. This is easily apparent in, but not limited to our highly populous metropolitan counties. These counties are home to many communities who are reckoning with both historical and present trauma, including Black or African American people and urban American Indians. Because these communities are situated in counties where a large number of low-risk people reside, the county as a whole did not meet the threshold for being designated an at-risk county in Phase I. However, we recognize that if home visiting is to meet the challenge of serving the most vulnerable families in our state, we must include these communities. Thus, in addition to the indicators of risk provided by HRSA, we chose to focus our examination of risks for families with young children on health disparities experienced by communities of color in our state. Minnesota is a majority non-Hispanic White state,[32] and there are documented disparities for racial and ethnic minority groups in virtually all of the social determinants of health, such as education,[33] wealth,[34] employment,[35] access to healthcare,[36] housing,[37] and access to food.[38] Specifically, Black or African American, American Indian, and Hispanic or Latina women are disproportionately burdened by low birth weight and preterm birth. Black or African Americans have the highest disparity of Medicaid births and American Indian and Hispanic or Latina women experience the greatest disparity in teen births. Improving the wellbeing of families with young children in our state will necessarily require addressing and working to ameliorate these disparities. As such, we took important steps to identify these additional counties in Phases II and III.

Quality and Capacity of Family Home Visiting

Overview of Minnesota Family Home Visiting Programs

MDH distributes and oversees both state and federal funds that support voluntary early childhood home visiting programs in Minnesota. Funds from the federal Temporary Assistance for Needy Families (TANF) program are allocated by the MN legislature to support both non-model public health nurse led and evidence-based home visiting, while federal MIECHV funds require the use of an approved, evidence-based model. MN has made additional investments in home visiting services including grants and infrastructure that fund the Nurse-Family Partnership (NFP) program, and an Evidence-Based Home Visiting (EBHV) Grant, which requires an evidence-based model.

The MDH FHV unit has three focus areas: (a) Practice, (b) Grants Management, and (c) Evaluation. The Practice Unit provides direct consultation to local implementing agencies (LIAs)

regarding home visiting infrastructure, home visiting practice, and regional/local coordination. MDH FHV staff in this unit are responsible for connecting with the model developers, providing practice-related technical assistance to LIAs, and overseeing model fidelity. The Grants Management unit plays a strategic role in planning, implementing, and monitoring state and federal FHV initiatives. This unit leads activities related to the strategic expansion of evidence-based home visiting models, including grants management, program development, continuous quality improvement, and early childhood systems integration. The Evaluation Unit oversees all state and federal process and outcome reporting requirements.

In 2019, MDH built a new evaluation reporting database, Information for Home Visiting Evaluation (IHVE). IHVE houses information about both home visitors and clients. IHVE interfaces with the most widely used electronic health record (EHR) platforms in our state, as well as a Research Electronic Data Capture (REDCap) database for home visiting organizations that do not use an EHR, reducing the need for time-consuming data entry in multiple platforms. Data are imported in near real-time, which streamlines reporting and evaluation activities. The IHVE database includes data on demographic information, all MIECHV performance indicators and systems outcomes, home visiting process data (e.g., screenings, referrals, etc.), and a broad range of other health topics such as food insecurity, parental incarceration, and housing status. The IHVE system improves standardization of data collection across home visiting agencies and reduces data entry errors through automated data quality checks. Continuous monitoring of evaluation data allows the MDH FHV team to identify opportunities for technical assistance and professional development.

Seven evidence-based home visiting models were implemented in Minnesota in fiscal year 2019, including Attachment and Biobehavioral Catch-up (ABC), EHS home-based option, Family Spirit, Healthy Families America (HFA), Family Connects, NFP, and Parents as Teachers (PAT). All of these models are supported by state and federal funds, except ABC, which is funded by payments from public and private insurance. Many traditional or non-model programs are also implemented across the state. Beginning in 2020, the Maternal Early Childhood Sustained Home Visiting (MECSH) model is being implemented in Minnesota. This model is not reflected in the inventory of home visiting programs because it was not being implemented in fiscal year 2019. Table 10 provides the inventory of FHV programs in at-risk counties.

Costs of Home Visiting Services and Reductions in Funding

Recognizing the tremendous impact of FHV, the Minnesota legislature has shown bipartisan support for FHV. Over the last six years, state funding for evidence-based FHV has increased substantially from $289,000 in 2014 to $18.5 million in 2020. Federal funding from MIECHV has remained fairly stable over the last three years. The legislature also continues to support a base level of home visiting funding by allocating $8.56 million in TANF funding each year to all 87 counties and 11 tribes. Minnesota also has a long history of reimbursing public health nurse-led home visits through Medicaid and other third-party payers. In 2017, MN increased the rate of reimbursement for nurse-led evidence-based home visiting to $140/visit, thus providing a substantial and sustainable revenue system for the over 400 nurse home visitors in the state.

Despite the significant investment in FHV in Minnesota, in most communities MDH-funded programs are serving only a fraction of the families who could benefit from services. Anticipated changes in MIECHV county risk status (per the 2020 MN MIECHV Needs Assessment) as well as potential state and local budget cuts due to COVID-19 impact may result in decreases to state and local funding of home visiting.

The costs of implementation per family vary between models based on intensity of the program, staffing requirements, and indirect agency costs. The average national cost of HFA per family per year is $3,674 to $4,649.[39] The average estimated total cost for families enrolled in NFP is $8,742 per family.[40] MDH continues to review, analyze, and oversee local level home visiting expenditures and has implemented a base cap of $6500/family each year of home visiting services. This cap increases to $8000/family each year in cases of multi-agency collaboration and/or when significant outreach is needed to engage families in home visiting.

Minnesota Families Served by Family Home Visiting

Demographics and Characteristics of Families Served

In 2019, 14,071 primary caregivers received FHV services, of which 7,104 were postpartum mothers, 127 were fathers, 6,617 were pregnant persons, and 204 were other caregivers. A total of 12,434 children were enrolled during this same time. A little less than half of both caregivers and children were Black or African American, American Indian, or people of color. Nearly a third of caregivers speak a language other than English as their primary language. Nearly a quarter of caregivers did not have a high school or general equivalency diploma at the time of enrollment. Table 11: FHV Participant Demographic Characteristics presents the demographics of both caregivers and children at the time of their enrollment.

Family Home Visiting Attrition Rates

Across FHV programs funded by MDH, attrition in FY 2019 was quite low, ranging from six to 10%. Attrition was measured as the number of families who stopped receiving services divided by the total number of households served, excluding those families who completed the program or were no longer eligible due to the age of the child. [41] Attrition rates do not appear to vary substantively by model. The most commonly reported reason for attrition as provided by grantees was difficulty in reaching families.[42] Some grantees also mentioned families moving out of their service area as a reason for attrition. High staff turnover and the need to train newly hired staff was mentioned as a factor contributing to attrition for some grantees.[42]

MDH contracted with Wilder Research to conduct a qualitative evaluation of retention and engagement of families in FHV programs in Minnesota. During 2016 and 2017, Wilder Research coordinated with 19 MIECHV sites across Minnesota to identify and interview 320 parents from diverse backgrounds, 98 program staff, and 28 referral partners.[42] MIECHV sites provided a list of parents who had completed the program, were currently enrolled in services, or had been referred but never enrolled. Interviews with parents were completed over the phone and were conducted in English, Spanish, Hmong, Karen, and Somali. Parents reported that the biggest barriers to participation were having a very busy schedule that could not accommodate FHV (30%) or moving out of the service area (21%).[42] Many program staff described strategies they

used to keep parents engaged when they move, including referring them to FHV programs in their new area. Among parents who were referred to FHV but never enrolled, 33% felt that their lives were too busy to engage in an intensive program. Parents who never enrolled or who stopped services prior to completion were more likely to be working full or part time than parents who completed the program.[42] The Wilder evaluation staff suggested several strategies to improve parent engagement and retention, including framing FHV as a program that can help parents enhance their skills, focusing on how the program can help parents as their needs change over time, and accommodating parents with busy schedules by offering reduced frequency visits or offering visit times in the evenings and on weekends.[42]

FHV agencies receive many referrals from other service agencies through networks composed of healthcare providers, social service workers, and child protection workers, who can refer potentially eligible families. However, the evaluation project completed by Wilder Research revealed that many referral partners struggled to identify families that may be appropriate for a referral to FHV.[42] To better identify at-risk families, FHV agencies must have the staffing capacity to allow for time to build relationships with referral partners and expand a referral network while also engaging in outreach themselves in their community.

Strengthening referral networks with a broad array of service providers, including healthcare providers, can improve identification and enrollment of at-risk families. Developing connections with key leaders in vulnerable communities depends upon FHV agencies identifying these individuals and fostering trusting partnerships. FHV programs must understand the health needs and particular preferences for engagement with family social service in order to enroll the families most in need and tailor services to them.

Home Visitors in Minnesota

Characteristics of Home Visitors

Beginning in January 2020, home visitors in MDH-funded FHV programs were asked to annually report basic demographic and professional information in the IHVE database. Demographic information is only available for home visitors and agencies funded through MDH. Data were collected on 665 home visitors funded by MDH. The majority of home visitors in Minnesota identify as female (92.6%) and White (77.4%). Home visitors have an average of nine years of experience, with a range of zero to 41 years. Almost half of home visitors are 40 years old or older, and three quarters have earned at least a bachelor's degree. Table 11: Family Home Visitor Demographics presents the demographic data of these home visitors.

Home visitors were also asked to report the licenses and certifications they have attained. Of the 664 home visitors who provided this information, 453 (68.2%) home visitors have a nursing license, 15 (2.3%) have a community health worker or educator license, and 14 (2.1%) have a social work license. Additionally, 118 (17.7%) home visitors are certified lactation counselors. Other certificates and licenses held include child passenger safety technician (54, 8.1%), infant family specialist (11, 1.6%), and child development associate (9, 1.3%). Thirty-two (4.8%) home visitors hold no licenses or certificates of any kind.

Of the 665 home visitors, 544 (81.8%) of home visitors indicated they are trained in an evidence-based model, with nearly six out of 10 reporting they are trained in HFA. Figure 2 depicts home visitors' model training.

Home Visitor Labor Statistics

Formal labor statistics for home visiting in Minnesota are not available, but limited information is available from grantee funding proposals and grant contracts. Except for rare exceptions in counties with small populations, home visitors are required to work at least 0.5 FTE in an evidence-based home visiting model when funded by state or federal programs. Larger programs employ program managers, while smaller grantees were encouraged to collaborate with nearby programs to hire shared program managers, in order to increase efficiency and maximize sharing of resources.

Review of MDH grantee budgets indicates that home visitor compensation depends primarily on location, credentials, and length of experience or tenure with the organization. Full-time salary and fringe for home visitors who are credentialed nurses generally range from about $85,000 in rural communities to $140,000 in the metropolitan area. Full compensation for home visitors who are not credentialed nurses ranges from $45,000 in rural communities to $95,000 in metropolitan areas. Supervisor compensation ranges from $110,000 to $150,000 in rural and urban communities, respectively.

Among all home visiting programs funded by MDH in FY 2019, the proportion of vacant home visitor positions was low. Among programs that have been in place for five years or more, vacancies ranged from 2 to 7%, and there were no supervisor vacancies. In the new EBHV program that began in May of 2018, home visitor vacancies were 15% and supervisor vacancies were 9%. Across programs, reasons for vacant home visitor positions include new programs in the process of hiring staff, maternity leaves, retirements, and promotions to other positions. To better support grantees, MDH grants management personnel provide technical assistance for grantees experiencing vacant positions and staff turnover.

Home Visitor Training and Support

MDH recognizes that the success of FHV programs depends on the preparedness of the home visiting workforce. Providing adequate support and development for both home visitors and supervisors is key to promoting effective organizations and delivering high quality programming to families.

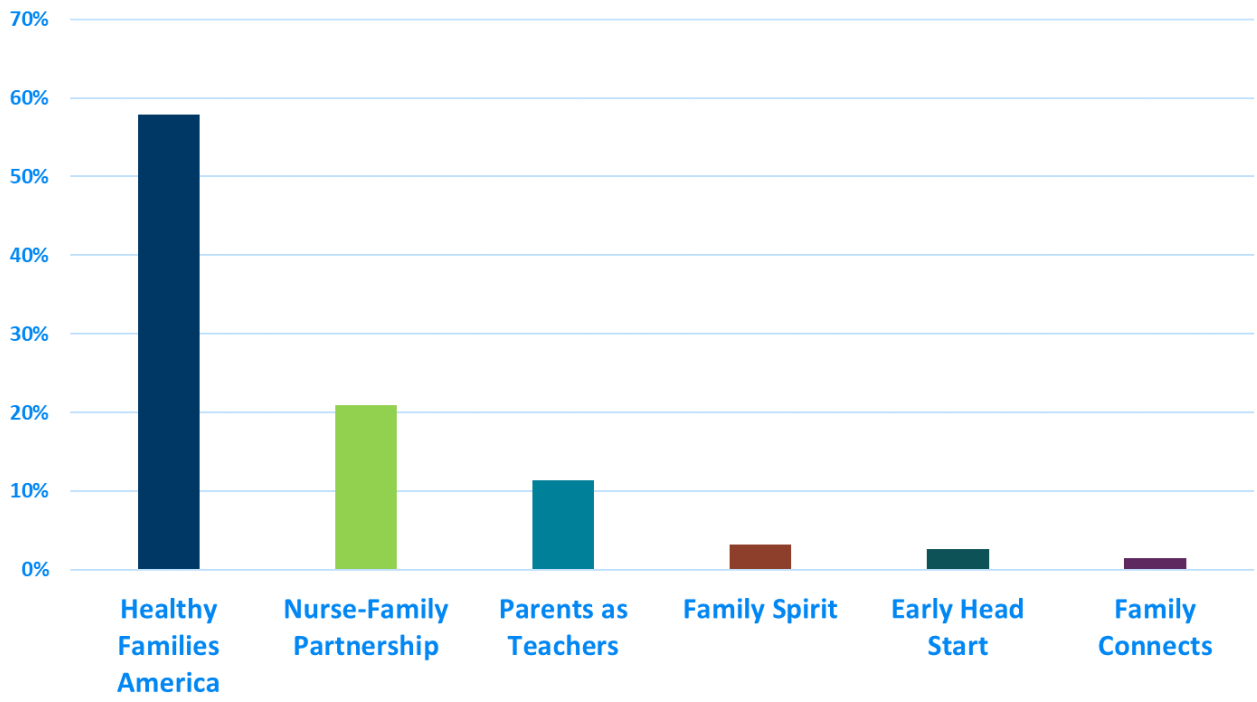
All FHV evidence-based models implemented in Minnesota require model-specific training for both home visitors and supervisors. Family Connects, MECSH and NFP require home visitors to be bachelor-prepared Registered Nurses. EHS requires home visitors to be a Home Visitor Child Development Associate or have comparable credentials. For Family Spirit, HFA, and PAT, home visitors can be paraprofessionals, professionals, and/or nurses. ABC requires parent coaches to be licensed mental health clinicians and to attend a specialized training and complete a year of supervision.

In addition to FHV model training requirements, MDH FHV provides training on a variety of topics via in-person workshops, online webinars, or hybrid instruction. MDH FHV offers live

webinars quarterly for home visitors on the Ages and Stages Questionnaire (ASQ-3) and Ages and Stages Questionnaire: Social Emotional (ASQ:SE-2). On average, 100 home visitors are trained on each of these tools per year. Over the past five years, the Futures without Violence

Figure 2

Training of Home Visitors by Evidence-Based Model



Healthy Moms, Happy Babies: Home Visitor Safety Card curriculum has been offered twice per year in partnership with Violence Free Minnesota. Over 150 home visitors attended these trainings in 2019. This curriculum was developed to train home visitors in best practices for Intimate Partner Violence (IPV) screenings, referrals and support.

MDH FHV currently supports two online professional development resources that are available to all MDH grantees: The Ounce of Prevention's Achieve OnDemand (AOD) and the Institute for the Advancement of Family Support Professionals ("The Institute"). Both platforms provide online resources aimed at supporting family home visitors through self-paced learning modules. Over 335 AOD licenses have been distributed to FHV programs across the state. Online learning is an especially effective tool in supporting and developing staff and programming for smaller and geographically remote organizations.

In early 2020, the MDH FHV evaluation unit surveyed FHV state grantees about their training and professional development needs. Of the 86 organizations invited to participate, 72 (84%) organizations submitted a response to the survey. According to respondents, training needs varied by the model being implemented. Grantees implementing Family Spirit, NFP, and PAT had been able to get staff the primary model training they needed, while grantees

implementing HFA reported more difficulty in accessing HFA core trainings. Grantees cited limited availability and the need to travel to obtain training as the primary difficulties. Grantees from all models expressed a desire for more training at the state and local level, which would alleviate some barriers to accessing training, such as cost and time.

The top training priorities indicated by grantees included, in order: (a) trauma-informed care, (b) infant mental health/attachment, (c) working with families in poverty, (d) adverse childhood experiences (ACEs) and resilience, (e) motivational interviewing and coaching, (f) engaging fathers, (g) reflective practice, (h) cultural sensitivity, (i) newborn/infant physical development, (j) prenatal/postpartum physical assessment, and (k) tobacco cessation during pregnancy. Overall, grantees expressed a desire for more specific information in the trainings that are currently available, such as: (a) working with parents who are substance using during and after pregnancy, (b) training in breastfeeding strategies such as exclusive pumping and bottle feeding, (c) IPV training, (d) providing individualized wrap-around services to parents with mental health problems and behavioral disorders, (e) partnering with child protection, (f) complications of pregnancy, and (g) fetal alcohol and neonatal abstinence syndrome.

Continuous Quality Improvement Learning Collaborative

MDH FHV has facilitated three continuous quality improvement (CQI) learning collaboratives since 2017 using the Institute for Healthcare Improvement Breakthrough Series Collaborative model.[43] Learning collaboratives are nine- to twelve-month projects focused on demonstrating measurable improvement in processes and outcomes related to MIECHV performance measures. MIECHV performance measures and systems outcomes data are used to inform continuous quality improvement. Past learning collaboratives have focused on family engagement, enrollment, and retention; caregiver depression screening; child development screening; and breastfeeding. MDH has a dedicated FHV Capacity Building team that includes a CQI supervisor, CQI Coordinator, Learning Coordinator, and Research Scientist who are able to leverage outcome data and develop learning collaboratives focused on opportunities for improvement that are unique to Minnesota.

One hundred fifty-six home visiting program staff participated in the most recent 2019 learning collaborative focused on breastfeeding. Each year, MDH FHV selects, in partnership with external stakeholders, a performance measure that has opportunity for improvement. Training, coaching, technical assistance, and learning sessions support local programs while they test strategies, collect data, learn from peers, and evaluate effectiveness. Home visitors participate in the collaboratives through monthly peer-learning webinars, in-person learning sessions, and as-needed coaching with nurse consultants and the statewide CQI coordinator. The goal of home visitor participation in CQI learning collaboratives is to provide professional development and training in CQI practices and build capacity of home visiting agencies to utilize CQI principles when responding to community health needs. The 2019 learning collaborative evaluation showed 72% of home visitors reported an increase in their confidence in using CQI skills. After the collaborative, 87% of home visitors reported feeling fairly or very confident in using CQI practices, a significant increase from 37% before the collaborative. A total of 82% of home visitors reported that participating in the collaborative improved their practices and 88% reported that they would likely continue using data to guide improvement efforts.

Needs and Gaps in Family Home Visiting in Minnesota

Meeting the Needs of At-Risk Families

In order to align with both statute and practice for FHV eligibility in our state, we used an alternative method for determining the number of families in need of FHV in each county. We calculated the need for FHV as the number of families living below the 185% of the Federal Poverty Level (FPL) who also had children under the age of five residing in the household (see FHV Programming in At-Risk Counties). This figure is a better reflection of the population we serve in Minnesota than the metric provided by HRSA.

The number of families in Minnesota who are in need of FHV is estimated to be approximately 76,000.[45] Nearly 65,000 (85%) of these families reside within at-risk counties as determined by this needs assessment. The proportion of families in need receiving services differed by county. For at-risk counties, between 1%-43% of families in need received home visiting services in 2019, with an average of 10%. All at-risk counties had at least one evidence-based program available and several had two or more. Figure 3 depicts the proportion of eligible families being served in at-risk counties.

The eight evidence-based FHV models implemented across Minnesota have been demonstrated to have positive effects on many of the key outcomes identified by the Home Visiting Evidence of Effectiveness (HomVEE) project, sponsored by the Administration for Children and Families.[45] Furthermore, most at-risk counties are utilizing FHV programs that have been shown to address the particular domains of risk that are elevated in those communities. However, no HV model has demonstrated positive effects on all eight HomVEE outcomes. Most counties operate only one or two evidence-based models, so the ability to match families to a model based on the profile of risk and the evidence of effectiveness is limited. Table 13 shows the seven models that are being implemented in Minnesota, and the statutorily-defined indicators of risk each model has been shown to impact.

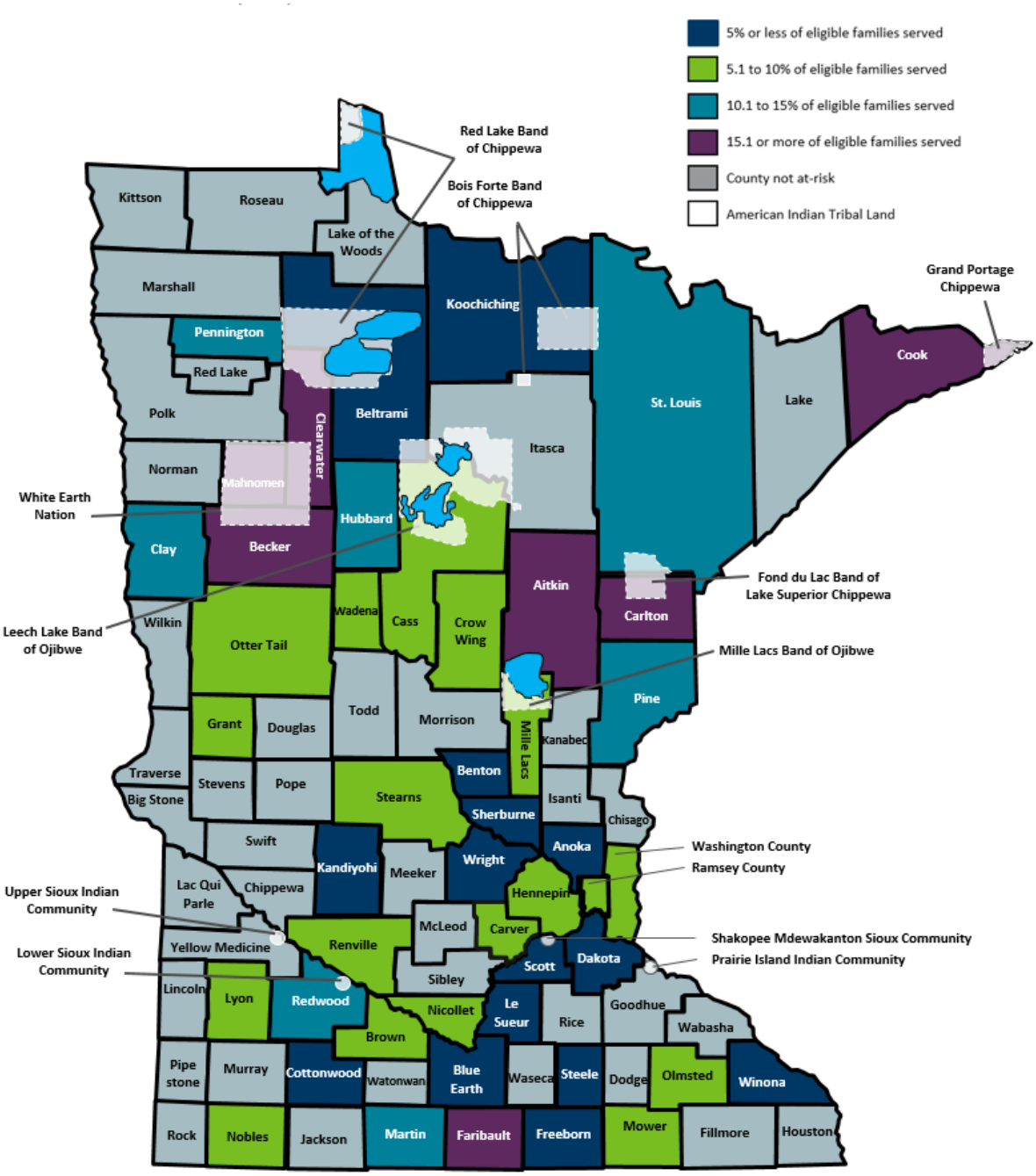
MDH utilizes MIECHV outcome measure data to identify areas for improvement. In 2019, MDH outcome measures that were better than or within 5% of the national threshold mean include: preterm birth, breastfeeding, well-child visit, postpartum care, child injury, early language and literacy skills, continuity of insurance coverage, and IPV referrals.[46] In all other measures, Minnesota fared worse than the national mean by 5% or more and these measures represent opportunities for improvement. Outcome measures for which our state does not meet the national threshold include: depression screening, tobacco cessation referrals, safe sleep, child maltreatment, parent-child interaction, developmental screening, behavioral concerns, IPV screening, completed depression referrals, and completed developmental referrals. Many of these measures represent systems outcomes rather than performance indicators. According to HRSA, "systems outcome measures are more distal to the home visiting intervention and/or are less sensitive to change due to home visiting alone due to many factors, including confounding influences or differences in available system infrastructure at the state- or community-level."[47]

To explore the extent to which home visiting is meeting the needs of families, the Wilder retention study provided qualitative information on the perceived value and program benefits

of home visiting.[48] Parents in the Wilder study reported they valued the information they received as part of their home visiting services, as well as the emotional support they received from their home visitor. Parents often mentioned they appreciated having an experienced individual to whom they could ask questions about their pregnancy or their child. Parents also found value in learning how to care for their infant and gaining knowledge about accessing resources including diapers and car seats. More than half (54%) of parents reported that

Figure 3

Proportion of Eligible Families Served in At-Risk Counties



gaining parenting skills was the most valuable aspect of their program; this was particularly important for first-time parents. Learning about their child's development was important to many parents, as was having a person to monitor their child's developmental milestones. Many parents valued learning about appropriate child behavior and ways to engage in their children's learning. The ability of the home visitor to provide reassurance to families that their child's development was on track was mentioned by many parents as their reason for completing home visiting programs.

Gaps in Family Home Visiting

Despite significant state investments in funding evidence-based home visiting over the last three years, gaps in home visiting remain. As noted above, Minnesota is only providing long term evidence-based home visiting services to approximately 9% of families in need. There are also large variations in ratios of home visiting service delivery across Minnesota's 87 counties and 11 tribal nations. For many years, MIECHV funding was the primary resource for evidence-based programs. This resulted in significant gaps in infrastructure across the state. While MIECHV funded programs have had 10 years to mature and develop robust home visiting initiatives, many counties, tribes, and non-profits have just started implementing evidence-based home visiting programs with the recent increase in state funding. Many of the newer home visiting programs are led by rural and frontier counties, tribal nations, and community and culturally specific non-profits. New programs need additional time, technical assistance and support to develop sustainable infrastructure, to recruit and retain staff, engage and serve families, and identify, connect, refer and partner with other critical community services. The COVID-19 pandemic has placed additional burden on some of our newest programs who are serving some of our most vulnerable families impacted by health disparities and the recent civil unrest in Minnesota.

Foremost in identifying any gaps, however, is the need for Minnesota to strive harder to address the health inequities and resulting health disparities in our state. In particular, there are significant gaps in the amount, choice, and longevity of home visiting services provided to American Indian, Black or African American, and Hispanic or Latino families. The limitations and challenges that home visitors and agencies encounter when implementing evidence-based models further exacerbates these inequities. For example, many of the home visiting models and curricula are not available in Spanish, Oromo, Somali, Karen, or Hmong, thus excluding a large portion of Minnesota's most vulnerable families. Opportunities for sustainability are also inequitable. For many years, Minnesota has been a leader in sustaining evidence-based home visiting due to its long-standing support of Medicaid and third-party reimbursement for public health nurse home visitors. Continued health disparities in educational achievements though have resulted in a largely white public health nurse workforce. Adding to this, Minnesota has not expanded the list of providers who can bill evidence-based home visiting services to reflect the workforce serving our American Indian communities and other communities of color.

Cultural and Language Needs of Minnesota Families

FHV programs in Minnesota serve diverse populations, including American Indians, Black or African Americans, Asian Americans, and Hispanic or Latinx people. In addition, Minnesota is

home to a large community of first- and second-generation immigrants, many of whom are refugees from areas of political or social conflict. MDH recognizes the importance of supporting programs to hire culturally-competent staff and make adaptations to existing models to better serve diverse communities.

According to the Minnesota State Demographic Center, the population of Minnesota is majority non-Hispanic White (80%), but the state is becoming more diverse, as the population of people of color is growing faster than that of non-Hispanic Whites.[31] In FY 2019, among FHV programs funded by MDH, nearly one-third of the caregivers (29%) and more than one-third of the children (37%) identified as non-White or multi-racial, while 16% of caregivers and 24% of children identified as Hispanic or Latino. In FY 2019, nearly one-third (33%) of caregivers enrolled in FHV spoke a language other than English as their primary language, including Spanish (9%), Somali (2%), and Karen (2%). These demographics illustrate some of the diversity present in the communities currently served by FHV.

Additionally, Minnesota is the home of 11 federally-recognized American Indian nations representing unique communities with distinct cultural traditions. Many of these communities have developed partnerships with EHS, substance use treatment programs, and Women, Infants, and Children (WIC) staff to better support American Indian families. Family Spirit, an evidence-based home visiting program developed for American Indian people was first implemented in Minnesota by the Bois Forte Band of Chippewa in 2014. In partnership with John Hopkins University, MDH is hosting in a community of practice aimed at improving the implementation of the Family Spirit model among American Indian communities and bringing the Family Spirit model to other communities across the state.

An EBHV grantee, Simpson Services, has adapted the Family Spirit model to serve Black or African American families experiencing homelessness. The Family Spirit model was chosen due to its emphasis on accessing and harnessing cultural strengths, and the program's flexibility to meet the diverse needs of homeless and highly mobile families. Several programs have made adaptations to existing models in order to serve diverse communities. For example, two culturally-focused non-profit service providers have paired together to translate one of the MIECHV curricula into the Somali language.

Minnesota is home to large communities of African and Asian immigrants, but there are currently no MIECHV-approved evidence-based FHV models targeted to meeting the needs of these unique communities. A goal of the state-funded Minnesota EBHV grant is to build the capacity of nonprofits and community health boards to implement evidence-based FHV to serve special populations. Continued funding to nonprofits and community health boards serving communities of color will provide opportunities for innovative implementation of evidence-based home visiting programs and improve access to culturally-appropriate FHV services.

The needs of immigrant and refugee families are often distinct from native-born families and these families face additional barriers to accessing home visiting or other health services. Recognizing the need to provide culturally-appropriate home visiting services to immigrant and refugee families, the YWCA Mankato New American Families Program has implemented the Parents as Teachers (PAT) model. The YWCA chose PAT for its focus on the health of the whole

family and building family economic self-sufficiency, believing this model a good fit for addressing the needs of immigrant and refugee families seeking to cultivate stability for themselves and their children.

Strengths and Weaknesses of Family Home Visiting Service Utilization and Outcome Data

In FY2019, MIECHV grantees, on average, were serving 99.0% of their target caseloads and state funded NFP grantees were serving 95.2%. Many state funded EBHV grantees began receiving funds in quarter two of 2019 and were in the initial stages of hiring and training home visiting staff; these grantees were, on average, serving 7.5% of the target caseload while EBHV grantees continuing from 2018 were serving 60.2%. Our inventory of FHV programs in Minnesota (see Appendix A) determined that all of the counties designated as at-risk are currently serving only a small portion of eligible families and most are serving 20% or less of eligible families, despite many programs having full or nearly full caseloads. Rates of service are particularly low in the counties that surround the Twin Cities of Minneapolis and St. Paul, ranging from 3.0% in Scott County to 5.8% in Ramsey County.

Challenges to service delivery include identifying families who are not connected to other social support systems, and lack of an ethnically and racially diverse home visitor workforce to serve those families. To address these challenges, MDH has expanded funding opportunities to nonprofit organizations that provide diverse families with other types of services, which builds capacity to identify, recruit, and serve hard-to-reach families. Engaging nonprofits in FHV service delivery will also aid in diversifying the home visitor workforce. As the Twin Cities metropolitan area is home to many diverse immigrant and refugee populations, diversifying the workforce will allow for home visitors to provide more culturally-appropriate care to these populations. Employing evidence-based FHV models that do not require home visitors to be licensed nurses has the potential to reduce home visitor workforce shortages. In rural areas, nurse home visitor positions are especially challenging to fill due to a shortage of nurses. In urban areas, retaining nurses in home visiting positions is difficult because these positions pay less than clinical care positions and there are more employment opportunities for nurses.

The COVID-19 pandemic has required home visitors to move to a virtual service delivery model in order to continue safely providing services. MDH has provided technical assistance to FHV agencies transitioning from in-person to virtual visits. Virtual visits reduce transportation barriers and commuting time for home visitors, which is especially important in rural communities where families might be far from the service provider. Continuing to provide virtual visits after the pandemic could improve service utilization by providing cost savings and needed flexibility to busy families and home visitors.

Barriers for Family Home Visiting Programs in At-Risk Counties

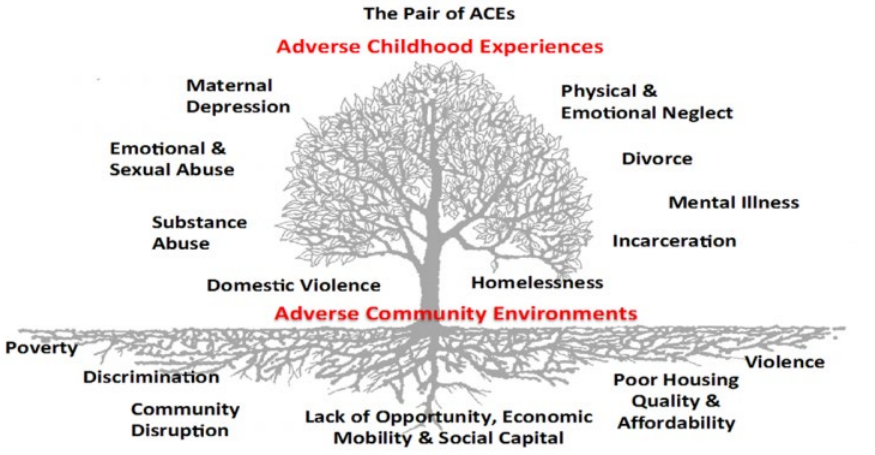
A goal of FHV is to improve parent and child wellbeing through the reduction of ACEs including child abuse and neglect, maternal depression, and parental substance use. The Building Community Resilience model (see Figure 4) depicts aspects of adverse community environments that can influence the prevalence ACEs, including poverty; discrimination;

community disruption; lack of opportunity, economic mobility, and social capital; poor housing quality and affordability; and violence.[49]

Improving the health of families and children through FHV requires a robust variety of community resources to adequately respond to the needs of individual families while also contributing to the betterment of the larger community. However, even given abundant community resources, access to resources is not uniformly distributed. An examination of barriers to FHV must be informed by a robust understanding of conditions that impact access to resources, such as the "Five Dimensions of Access" framework developed by Penchansky and Thomas (1981).[50] The characteristics of access defined by this framework are affordability, availability, accessibility, accommodation, and acceptability. Each characteristic of access has important implications for home visiting programs. Data stories developed through the MDH Title V Needs Assessment are used below to illustrate the barriers to FHV in Minnesota.[51]

Figure 4

Building Community Resilience Model



Ellis, W., Dietz, W. (2017) A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience (BCR) Model. Academic Pediatrics. 17 (2017) pp. S86-S93. DOI information: 10.1016/j.acap.2016.12.011

Affordability is defined as the financial costs that a provider charges and the client's ability and willingness to pay for services. While FHV services are free of charge, many other services that are necessary for family health have significant costs for families, including healthcare, child care, and housing. Healthcare is becoming more expensive; healthcare expenditure per family in Minnesota has nearly doubled since 1997.[52] In 2017, the overall uninsured rate for the state was about 6%—down from a high of 9% in 2010, prior to major Affordable Care Act (ACA) reforms.[53] Disparities in insurance rates by income and race are prevalent; 11% of those with incomes below 200% of the FPL and 14% of people of color and American Indians were

uninsured compared to just 4% of White people.[52] The rural areas of the northern region of the state had the highest proportion of Minnesotans without insurance.[52]

Minnesota is ranked as the fifth least affordable state for center-based child care.[54] People living in rural areas of northern Minnesota experience the greatest financial burden when paying for child care with couples paying, on average, 12% or more of their monthly income towards child care.[54] However, families all across the state are faced with a significant financial burden for child care. The cost of child care is impacted by critical shortages in licensed child care providers across the state. Families without child care are more likely to be people of color and American Indian compared to non-Hispanic Whites. Improving access to high quality child care supports both parents, who can work or pursue education that increases household income, as well as children, who receive education in safe, secure environments.

Affordability of healthcare and child care are also influenced by affordability of housing because families who have to spend more of their income on housing have less to pay for other needs. According to the Title V Discovery Survey, affordable and quality housing was the number one need identified by Black or African American, American Indian, and Hispanic or Latino respondents.[55] An estimated one in four families in Minnesota are housing-burdened, meaning they spend 30% or more of their monthly income on housing.[56] More than half of the lowest-income families in Minnesota spend 50% or more of their monthly income on housing.[56] Families who rent are more vulnerable than homeowners to increases in housing costs that make housing unaffordable and lead to displacement or homelessness. Housing instability can, in turn, create challenges for home visiting programs, and hamper participants' capacity to engage in home visiting.

Availability is defined as the extent to which providers have adequate resources to meet the needs of clients. In Minnesota, the rates of health insurance coverage do not differ substantially between urban and rural counties, but availability of services greatly impacts access to behavioral health treatment, oral health, and healthcare providers in general. People living in rural Minnesota often have to wait longer to receive mental health services and travel farther due to a shortage of psychiatrists.[57] From 2011 to 2015, only 53% of adults with a mental health problem living in Minnesota received services when they needed them.[57] Availability of behavioral health services is also limited by providers' willingness to accept Medical Assistance and having access to few in-network providers, resulting in higher out of pocket costs. Lack of mental health and substance use treatment programs, particularly those that accept Medical Assistance and serve pregnant women or families with children poses a significant barrier to home visiting programs.

In Minnesota, receipt of appropriate and timely oral health services is closely associated with urbanicity, race, and income. Children of color and children living in rural areas are more likely to have untreated dental caries due to a lack of preventive care or dental services in their area. Public insurance reimburses providers at a rate of less than one-third that of private insurance[58], leading to a disincentive for dentists to see patients with public insurance, and long wait times. A goal of home visiting is to increase the proportion of children who receive preventive medical and dental care, but limited availability of providers remains a barrier.

A lack of healthcare providers is closely related to workforce issues in FHV, specifically regarding the availability of licensed nurses. Rural areas struggle to attract and retain nurses while nurses in urban areas have opportunities for higher pay if they work in healthcare systems as opposed to public health.[59]

Community screening rates for Medicaid-eligible children in Minnesota are lower than recommended overall and American Indian and White children consistently have the lowest screening rates.[60] Because these children are heavily represented in rural areas, the low community screening rates likely stem from the limited availability of early intervention and healthcare resources. Early diagnosis and intervention are crucial for improving developmental outcomes; home visitors make an important contribution to this problem by performing screening and early detection of developmental problems in children.

Accessibility is defined as how easily a client can reach the provider's location. Transportation is a barrier for families in both rural and urban areas of our state.[61] Low-income people in urban communities often rely on public transportation, which requires additional time and planning. In rural communities, people often live far from service providers, requiring families to travel long distances to obtain some types of services.

Among mothers living in rural areas in Minnesota, 44% reported experiencing at least one barrier related to prenatal care, including transportation and ability to take time off of work to travel to appointments.[62] A report by the Rural Health Research Center at the University of Minnesota found that mothers living in rural areas are at higher risk for preterm birth and are more likely to give birth in a hospital without obstetric services.[63] Giving birth in a hospital without obstetric services is associated with poor maternal outcomes such as higher rates of hemorrhage, emergency surgery, and maternal death.[64] From 2000 to 2015, there has been a 37% decline in the number of hospitals offering obstetric services in rural areas of Minnesota, compared to just a 4% decline in urban areas.[65] A lack of access to reproductive and obstetric care can cause disparities in adverse perinatal outcomes for both mothers and babies.

Accommodation is defined as the extent to which services are provided that meet client preferences. The type of support and education that parents need and want can differ greatly depending on many factors including personal preference, family structure, culture, and employment situation. In Minnesota, many different types of families are considered target populations for FHV such as low income families, teen mothers, and families experiencing substance use. As such, the needs of families engaging in FHV programs can be very diverse. FHV programs that serve diverse communities must be prepared to respond to diverse client preferences as well. Furthermore, for clients who are most vulnerable, meeting basic needs might be of higher priority than engaging in FHV services. Programs must accommodate families by cultivating effective partnerships with a wide range of social service organizations that help families meet basic needs, such as housing and food security.

The evaluation of parent engagement and retention conducted by Wilder Research found that 30% of parents who stopped services early felt that the program had helped them meet their goals and that they no longer needed the program.[42] However, in comparison to the number of families who enroll in FHV, the number of families who complete a FHV program is small. Adapting FHV programs to meet the changing needs of a family as their children age and as

parents gain more skills could improve retention and program completion. Many families who stopped services shared that their work schedules did not allow for visits during the week and that visits were not available in the evenings or on weekends. A consistent barrier to engaging fathers in home visiting is the lack of evening and weekend visits that can accommodate the schedules of working fathers or fathers attending school. Few MDH-funded home visitors are male or have specific expertise serving fathers. Implementing FHV practices that are more inclusive of fathers is an area of improvement to better accommodate families.

Lastly, **acceptability** is the extent to which the client is comfortable with the characteristics of providers and the cultural appropriateness of provided services. Many MDH grantees strive to provide culturally informed services and try to hire home visitors and other program staff who reflect the communities they serve. However, lack of diversity in the public health workforce in Minnesota remains a barrier. Additionally, a lack of home visitors who speak a family's primary language and/or the need to rely on translators can impact acceptability of home visiting services. Since 2010, Minnesota has seen a 26% increase in the proportion of the state who identify as people of color[66], but has not seen a commensurate increase of people of color in healthcare, home visiting, child protection, human services, and other social service fields. The Title V Discovery Survey indicated that the need for culturally responsive care was a high priority for respondents of all races.[54] As previously noted, MDH FHV has a goal to diversify the workforce and expand funding to nonprofits serving diverse communities to improve acceptability of home visiting programs. Recruiting a diverse home visiting workforce has been challenging for both urban and rural programs, but rural programs that already struggle with workforce retention could face additional barriers to recruiting a diverse staff.

Enrollment in Other Early Childhood Programs

Minnesota invests heavily in programming to serve children in their first years. Families in Minnesota utilize a variety of early childhood programs including EHS center-based programs, Early Childhood Family Education (ECFE), and Early Childhood Special Education. According to the 2018 Minnesota Compass data, about 28% of children under age six living at or below 100% of the FPL were served by Head Start and EHS.[30] In 2016-2017, ECFE served about 5% of children under the age of five; ECFE does not focus on children living in poverty and fees are based on income. It is estimated that 15-17% of Minnesota children under age six have a developmental disability, but in 2017, only 7% of these children were served by early childhood intervention and special education services. Other early childhood programs in Minnesota include the School Readiness Program, which served 14% of children ages three and four, and Voluntary Pre-kindergarten, which served about 5% of four-year-olds.[30]

In addition to formal early childhood programming, Minnesota provides scholarships for low income families to access high quality child care under the Child Care Assistance Program (CCAP).[67] Among families at or below 200% of the poverty level, 13% of children under age six were served by CCAP. As of June 2020, 12 of the 47 at-risk counties had a waiting list for the CCAP.[68] The metropolitan counties usually have a waiting list and sometimes families can remain on the waiting list for up to two years.

Early Childhood Systems Coordination

Over the last 10 years, many initiatives have aimed to provide comprehensive and culturally appropriate early childhood programs that address access to health care, mental health services, early care, and education. However, the presence of many early childhood programs has resulted in a complex and fragmented system. While public health and human services operate at a county or tribe level with local control, educational services are dispersed across 300 independent school districts.[60] Anecdotal evidence from the Title V Needs Assessment suggests that providers consistently report that services are unavailable, unknown, or hard to access.[60] This is due in part to differences in the way programs are funded and variation in their eligibility and other requirements. For example, income eligibility is defined differently across programs aimed at low-income families, creating a burden for families seeking to enroll, as well as creating challenges for service providers.[69] Also, although all of the 11 American Indian nations in Minnesota offer culturally relevant services, potential referrers often do not know about these services or have existing relationships with the tribal nations. In 2016, efforts from local partners provided formal recommendations to the State in 2016 confirming the need for a centralized system for resource navigation, referral and follow-through, and documentation of gaps and barriers in the system.[70] Recommendations from Tribes in Minnesota call for a distinct approach for tribal and urban American Indian services, and that each tribal nation be approached individually about their degree of interest and involvement in partnering with state government.[71]

One promising recent effort to explore ways to build a comprehensive early childhood system in Minnesota is the Preschool Development Birth through Five Grant (PDG).[72] The aim of the PDG is to support "families with young children who are experiencing racial, geographic, and economic inequities so they can be born healthy and thrive within their families and community."[73] PDG funding will be used to develop an inter-agency data system for early childhood data coordination. By aligning and coordinating multiple systems that families of young children interact with, families will navigate through the systems more efficiently. The effort is a partnership between the Minnesota Departments of Education, Health, and Human Services, along with the Children's Cabinet. In partnership with the PDG Planning and Advisory Committee, the state conducted a needs assessment, and then developed a comprehensive strategic plan that leverages strengths and addresses barriers for supporting families and young children.

The Minnesota Early Childhood Initiatives aims to increase high-quality child care that is accessible and affordable for all families.[74] Working with public, private, and nonprofit partners, six Minnesota Initiative Foundations (MIFs) are independent extensions of the Minnesota Early Childhood Initiatives. The MIFs partner with rural communities and established early childhood coalitions across Greater Minnesota to respond to regional needs through grants, business loans, training needs, coalition-building support, and advocacy efforts.

The Minnesota Coalition for Targeted Home Visiting (MNCTHV) works to support, advocate, and secure stable funding for targeted and intensive home visiting, including programs with and without evidence of effectiveness.[75] MNCTHV also focuses on building collaboration across organizations by offering professional development opportunities. MCTHV publishes a Family Home Visiting Directory that includes over 70 programs/organizations throughout Minnesota.

Capacity for Providing Substance Use Treatment

Substance Abuse Disorder in Minnesota

Each year, approximately 5.7% of Minnesota adults need treatment for alcohol use disorders and about 2.1% need treatment for drug use disorders.[76] However, about nine out of 10 Minnesotans who need SUD treatment do not receive it.[76] From 2015-2018 SUD treatment admissions increased for methamphetamine use. While heroin use disorder admissions remained level at 12.3% between 2015 and 2018, admissions for other opiates, such as prescription pain medication, decreased from 7.2% in 2015 to 4.5% in 2018.[76] Opioid deaths increased 11.0% from 2016 to 2017, with 422 opioid deaths in Minnesota in the latter year. American Indians are five times as likely and Black or African Americans are twice as likely to die from a drug overdose than their White counterparts, representing the largest disparity-rate ratio of deaths due to drug overdose in the nation.[76,77] Furthermore, the need for treatment for SUD was greatest among the least educated and poorest in our state.[76]

State Substance Abuse Strategy

Minnesota's State Substance Abuse Strategy is a multi-agency, multi-faceted approach comprised of state departments of Human Services (DHS), Corrections, Education, Health, Public Safety, Labor and Industry, and representatives from the Judiciary and the Board of Pharmacy.[78] In 2017, the legislature passed Substance Use Disorder Reform, which required DHS to create a system to provide a full continuum of care for individuals with SUD.[79] DHS has worked to transform our state's SUD treatment system from an acute, episodic model of treatment to a chronic disease model of care.[76,78] By building a person-centered and recovery-oriented system of care, services have expanded to improve integration and coordination with other health care systems.[76,78] This includes services outside of treatment centers, such as at recovery-focused community organizations, clinics, hospitals, and jails.[79] Expanded access decreases geographic and transportation barriers because SUD services can be provided in the community. SUD reform permits direct reimbursement for SUD services from credentialed professionals.[79]

DHS aims to prevent and address the impacts of drug and alcohol abuse by providing services in: (a) prevention; (b) early intervention; (c) detoxification; (d) treatment; (e) continuing care; and (f) recovery support.[76,78] Services are provided by individual and population-based programs that are delivered across many settings with a focus on culturally specific activities for groups such as women, men, American Indians, Black or African Americans, Hispanics or Latinos, Hmong, Somalis, people who are deaf and hard of hearing, lesbian/gay/bisexual/transgender people, adolescents, and seniors.[78] For example, the American Indian Section has supported training and education about SUD prevention in the tribal nations and urban American Indian communities in Minnesota.[78] From 2011 to 2016, over 600 substance abuse professionals were trained in a culturally specific SUD program for American Indians.[78] The 2019 legislature appropriated $4 million to tribal communities to improve access, coordination, and referral processes for traditional healing in American Indian communities.[76]

The 87 counties in Minnesota are divided into seven Alcohol, Tobacco and Other Drug Prevention Regions that each have a Regional Prevention Coordinator (RPC).[76] Each RPC supports community efforts to prevent alcohol, tobacco and other drug abuse by building regional relationships to enhance prevention efforts, identifying and providing training opportunities, and providing technical assistance.[77] DHS funds the RPCs using federal Substance Abuse Prevention and Treatment (SAPT) Block Grant dollars.[76] More RPC information can be found at http://www.rpcmn.org/.

Substance Use Disorder Treatment for Pregnant Women and Families with Young Children

To promote data-driven decision making, DHS supports several surveillance mechanisms in Minnesota. DHS relies on the Minnesota Survey of Adult Substance Use (MNSASU) to collect information about substance misuse and SUD in adults in Minnesota.[76] The most current MNSASU data available is from the 2015 report with the next MNSASU report process beginning in 2020. The Minnesota Student Survey (MSS) is another key source of surveillance data on this topic. The MSS is a statewide, school-based survey conducted among students in fifth, eighth, ninth, and eleventh grades in public schools collected to estimate the prevention needs for adolescents.[76]

DHS maintains DAANES which requires all providers of SUD treatment who participate in the Consolidated Chemical Dependency Treatment Fund to submit data at the time of admission and discharge for all episodes of treatment.[76] The Strategic Prevention Framework Partnerships for Success grant funds the Minnesota State Epidemiological Outcomes Workgroup (SEOW) to monitor trends in substance misuse, related consequences, and risk and protective factors.[76] A state epidemiological profile is updated annually that includes county, topical, and demographic fact sheets. SEOW also maintains an interactive website called "Substance Use in MN" (SUMN)[76] that provides data by age, gender, sexual orientation, race/ethnicity, county, and region.

Since 2007, Minnesota hospitals, emergency departments, and primary care settings have used the Screening, Brief Intervention and Referral to Treatment (SBIRT) practice to increase prevention and early intervention.[76,78] SBIRT is an evidence-based practice that identifies individuals in need of specialized treatment in order to modify alcohol consumption patterns and decrease the risk of developing substance use problems.[76,78] After receiving screening for risky drinking, patients reported a reduction in the number of binge drinking sessions per week.[76, 78]

DHS supports a range of universal prevention programs including the Positive Community Norms program, which provides multifaceted SUD prevention programming in middle and high schools.[80] This program aims to educate youth about community norms around substance use. In participating schools, alcohol use went down 23% among high school students and 50% among middle school students between 2010 and 2016.[81] Ten new school districts were funded to implement the program over a five-year period starting in 2016.[81] Notably, many of the current and past grantees are among the counties that were identified as at-risk in the substance use domain of this needs assessment.

The Behavioral Health Division (BHD) of DHS supports culturally specific SUD treatment and gender responsive care programs. BHD develops treatment licensure rules and partners with consumers, counties, tribes and providers to develop person and family-centered, community-based care.

Currently, 11 treatment providers contract with the DHS BHD through the Women's Recovery Services (WRS) program, which is funded through a block grant from Substance Abuse and Mental Health Services Administration (SAMHSA), to provide comprehensive, women-specific and family-centered services focused on helping pregnant and parenting women who have SUDs and are in treatment to remain alcohol and drug free.[82] Services include providing coordinated case management and recovery coaching for women and their families to help them get and keep a job, stay out of the criminal justice system, secure stable housing, get physical and mental health services, and deliver babies who test negative for substances at birth.[82] Women eligible for WRS must be (a) pregnant or parenting dependent children under age 19, and enrolled in a substance abuse treatment program, have completed treatment within the past six months, or commit to entering treatment within three months of program enrollment; or (b) women who are pregnant and actively using alcohol or drugs, regardless of treatment status.[82]

Gaps in Treatment of Pregnant Women and Families with Young Children

Although there were nearly 60,000 admissions to treatment programs in 2019, close to 400,000 Minnesotans who needed treatment were not able to get it. Minnesota women reported rates of heavy drinking nearly as high as those of men in the state (e.g., 6% vs. 7%; MNSASU 2015[83]), however, women represented 35.4% of admissions for alcohol use treatment in 2018. Clearly, there are many women who need alcohol treatment who are not getting it.[76]

There are currently 416 programs in the state that are licensed to provide SUD treatment services;[76] 11 of those programs provide gender-responsive care for pregnant and parenting women through WRS. Many other programs serve women, but they might not have specific training in gender-responsive care. While Minnesota has 14 Children's Residential Facilities (CRF)[76], there are currently no programs that provide gender-responsive treatment specific to adolescent girls.

A formal analysis of gaps in SUD care has not been conducted, but some gaps are clear. More programs are needed. More than half of the facilities providing gender-responsive care are located in the Twin Cities; treatment options for pregnant and parenting women in the rural parts of the state are limited. Furthermore, large sections of the state, such as the southwest, have no funded programs. There are many counties identified as at-risk in the substance use domain that do not have gender-responsive treatment programs for pregnant and parenting women. Even where programs exist, waiting lists can be long, meaning that treatment is often not available at times that are critical in the lives of women – such as during pregnancy and the first few years of a child's life. Women might have more difficulty engaging in outpatient treatment compared to men due to their caregiving responsibilities, so residential treatment that allows women to access services without being separated from their children is essential.

Effective SUD treatment for women must also be family-centered, which requires that basic needs such as safe housing, adequate nutrition, and mental health concerns of both parents and children are addressed in order for a client to engage productively in treatment.

Although the BHD works to provide culturally-competent SUD treatment, there is a profound need for more programs to serve diverse Minnesotans. Treatment admissions for Minnesotans of all races increased from 2013 to 2016.[78] Black or African American, American Indian, and Hispanic or Latino Minnesotans are particularly over-represented in treatment admissions statistics.[76,78] Given the disproportionate burden of SUD on communities of color, prevention efforts that address the social disparities that lead to substance use in these populations should be prioritized.[78]

Barriers to Receipt of Substance Use Disorder among Pregnant Women and Families with Young Children

Reform of the SUD treatment system aimed to address several substantial barriers to receipt of care. However, some barriers remain, particularly for pregnant women and families with young children, such as fear or distrust of government systems, lack of culturally-competent care, and workforce development training.[78] The DHS 2020 Legislative Report included three overall recommendations to reduce barriers to treatment: (a) address social determinants of health in order to prevent substance use/misuse and promote recovery in the community, (b) support people in their individual, family, and community environments to make informed choices in order to lead the lives they want, and (c) engage SUD providers, partners, and stakeholders and enhance their capacity to support people, families, and communities.[76]

Stigma about substance use is a major barrier to families seeking treatment. Mothers and pregnant women often delay or avoid seeking treatment due to fear about facing sanctions such as prosecution and incarceration, or involvement in the child welfare system. While some individual treatment programs have effective partnerships with the child welfare system, this is an area of opportunity for many programs. In some cases, the child welfare system can encourage a woman to access treatment she might otherwise be reluctant to engage in. Hospitals and health care clinics also need better training in screening for and responding to SUD.

In addition to more programs and more timely receipt of care, there is a need for additional services that can be provided while waiting for a place in a residential treatment facility to become available, in order to engage women and capitalize on a window of openness for addressing one's SUD. There is also a need for coordination among systems that families interact with, so that women who are struggling with SUD are not asked to navigate multiple complex government systems in order to meet their basic needs and access SUD care.

Some counties have programs that serve substance using pregnant and parenting women across the spectrum of treatment – including prior to accessing treatment, while in treatment, and while reintegrating into the community after receiving treatment. However, these programs are administered at the county level and are not widely available across all counties,

including in many of the counties where substance use is of most concern. Recovery maintenance support is a critical part of serving women and families.

Finally, there is a need for more and better training of the SUD workforce in trauma-informed care, and how to work with special populations, including women, and Black or African American, American Indian, other people of color, and migrant and undocumented people. Currently, the state does not provide or fund such training for providers. However, all staff in licensed SUD treatment facilities have to undertake regular continuing education, and the state could encourage training in these skills.

Opportunities for Collaboration with State and Local Partners

A major effort of Minnesota's Preschool Development Grant (PDG) is to establish regional hubs that coordinate public-facing systems that serve families with children. There is a tremendous opportunity to build meaningful partnerships between diverse systems that interact with families, including home visiting, the SUD treatment system, healthcare, child welfare and criminal justice.

One promising avenue for collaboration is to partner with local programs that attempt to address substance use in pregnant and parenting women. For example, the state's most populous county, Hennepin, administers the Project CHILD program that serves women who are using drugs or alcohol before their 34th week of pregnancy. Project CHILD is a voluntary program to help divert mothers who are at increased risk for being involved with child protection by providing chemical health assessments and treatment services, including education, support, counseling, and community referrals for basic need assistance and parenting education. Many counties have these types of programs, which represent an opportunity for collaboration with home visiting services.

Many home visitors have little experience engaging with substance-using parents, and specific training in working with parents who are abusing drugs or alcohol was mentioned in the MDH survey of training and professional development needs described previously in this report. Because of the strong relationships they have with clients, home visitors might be uniquely positioned to encourage substance using parents to engage in treatment. Techniques such as motivational interviewing might be particularly effective, but require intensive training. Home visitors must also have an opportunity to explore and address their own experience with and feelings about substance use and abuse in order to successfully guide clients.

Strategic Approach to Respond to Substance Use Disorders among Pregnant Women and Families with Young Children

The DHS BHD provides SUD treatment support and recovery services for pregnant and parenting women through Women's Recovery Services (WRS). Coordination between WRS and other state systems such as home visiting, housing, food support and the criminal justice system are needed.

As part of DHS efforts to develop a SUD strategic approach, nine listening sessions were facilitated throughout the state in 2015.[78] A core stakeholder workgroup that included

representation from consumers/families, Tribal Nations, counties, providers, health plans, hospitals, prevention, problem gambling, culturally-specific providers and recovery care organizations met for five 3-hour work sessions in June 2016; a fiscal stakeholder workgroup made recommendations regarding funding and the responsibilities of the state and counties in funding SUD treatment, and a series of six community presentations were held statewide starting in October 2016.[78] Key findings included focusing funds on prevention, intervention, withdrawal management, treatment, care coordination, and recovery support; highlighting the importance of culture, tradition, and spirituality for wellbeing; increasing safe affordable housing and investing in services to families with children and adolescents; partnering with schools, faith communities, and other local supports.

Activities to Strengthen the System of Care

Wilder Research conducted process and outcome evaluations and a cost-benefit analysis of the five-year grants awarded to the 11 WRS programs.[84] During the third year of the five-year grant, WRS programs served 1,245 women and their 2,309 children between June 1, 2018 and May 31, 2019.[84] During this time, 866 women exited the programs. The median length of participation was 3.5 months, with an average of 231 staff contact hours per woman.[84] Of the 1,245 women served, 51% were White, 20% were American Indian/Alaskan Native, 16% were Black or African American, 10% were Biracial/Multiracial, 2% were Asian American/Pacific Islander, and 1% were another race.[84] WRS program staff reported that women had the greatest need for services around mental health or counseling (68%), parenting (58%), housing (43%), and relationship issues (26%).[84] Many women (79%) were in chemical dependency treatment prior to entering WRS programs, including inpatient/residential treatment (54%), with over half (60%) of those who were in treatment during their program successfully completing treatment.[84] Over half (55%) of the women indicated methamphetamine was their preferred drug at intake, followed by marijuana/hashish (46%), alcohol (33%), heroin (14%), pharmaceutical opioids (9%), and cocaine (9%).[84]

In addition to providing treatment and recovery support, program staff provided other services such as mental health counseling (86%), parenting (81%), physical health (71%), housing (67%), relationship issues (64%), transportation (63%), wellness or recreation (66%), and public benefits (49%). Most women (81%) reported a mental health diagnosis at intake, with anxiety disorders (85%) and depressive disorders (74%) being the most common.[84]

Key findings from the WRS 3-year report suggest the need for integrative and bridging services that connect women to high dose services in community care, including mental health services. Participants in WRS programs were more likely to have positive outcomes if they successfully completed their treatment.[84] Securing safe and stable housing and accessing mental health services before they completed their treatment improved long-term outcomes like remaining sober at one- and six-month follow-up, reunification with one or more children, and successfully completing their treatment program.[84] Compared to intake, at the six-month follow-up, more women resided in supportive housing (60% vs. 89%) or stable housing (51% vs. 90%), more women were employed (21% vs. 52%), women reported improved relationships with their children (47% vs. 95%), and fewer women were involved with child protection (57%

vs. 45%).[84] Upon exiting WRS programs, women are more likely to be substance-free (87%), as compared to intake (39%).[4]

While the state has made significant improvements to the system of SUD treatment in recent years, there is more work to be done. Most people who need treatment do not receive it, and that includes pregnant women and parents of young children. Barriers to service include a lack of programs that serve rural areas and programs that offer parents residential treatment without being separated from their children. FHV programs are uniquely positioned to partner with SUD treatment providers and parents struggling with SUD to promote family wellbeing.

Coordinating with Other Needs Assessments

In conducting the MIECHV needs assessment, the FHV team coordinated with other recent needs assessments in our state, including Title V within MDH, Head Start, Community Based Child Abuse Prevention (CBCAP), and the PDG. Per guidance from the SIR, findings from those needs assessments were used to inform this assessment and to identify common barriers across the system of programs serving families with young children.

Title V

The Manager of the MDH FHV section served on MDH's Title V needs assessment leadership team and contributed to Title V needs assessment planning. MDH FHV staff who worked on the MIECHV needs assessment contributed to internal listening sessions for the Title V needs assessment in February of 2018. The Title V needs assessment coordinators and MIECHV needs assessment team worked collaboratively on data sharing and alignment of Title V strategic planning and the FHV needs assessment. As the Title V needs assessment began in 2018, many of the data collection activities had been completed prior to the start of the MIECHV needs assessment. While there was limited opportunity to coordinate primary data collection activities, the Title V needs assessment team shared findings from the Discovery Survey, key informant interviews, and focus groups conducted during their needs assessment. The Discovery Survey was a qualitative data collection tool developed in partnership with Child and Family Health Division staff and external stakeholders, and which received 2,716 anonymous responses. Title V Discovery Survey data were used to identify barriers to health experienced by families statewide.

FHV staff participated on several teams convened in the spring of 2020 to develop strategies to address Title V priorities over the next five years, including early childhood wellbeing, adolescent suicide, American Indian health, boys and young men, and parent and caregiver support strategy teams. FHV staff provided input on ways that home visiting programs currently reach families, services provided, and potential opportunities for growth of home visiting programs across the state.

Findings from the Title V needs assessment were used to inform the selection of indicators in the MIECHV needs assessment. Title V Research Scientists provided data on Medicaid births, WIC enrollment, maternal education, infant mortality, teen births, birth spacing, and prenatal care adequacy for utilization in the MIECHV Needs Assessment identification of at-risk counties.

Data stories written by Title V staff and Discovery Survey data were directly utilized in the MIECHV needs assessment narrative.

Head Start

Each Head Start agency submits an annual plan for their state funding and completes separate needs assessments every five years. Most agencies make these reports available on their websites. Eight agencies had a community needs assessment available online, 16 agencies had an annual report or strategic plan posted; nine agencies did not have any reports available online. FHV staff reviewed available needs assessments for each of the 33 Head Start agencies (including eight Tribal Head Start agencies) that provide Early Head Start (EHS) home-based programs in our state.

Many of the EHS agencies cover multiple counties and their community needs assessments reported on multiple programs operated by the agencies. Several of the reports provided information from surveys of parents involved in EHS and methods of engaging the community that highlight the importance of including parents in early childhood education programs. Parents expressed the need for education and employment support, often sharing that their greatest need and challenge was affordable housing. Reports also included information about the percentage of children who received medical, dental, or vision screenings, and Individualized Education Program (IEP) test scores. Findings from the available EHS community needs assessments reflected the benefit and need for early childhood development programs in many of the at-risk service areas.

Community Based Child Abuse Prevention

Rather than complete a unique Title II needs assessment, our CBCAP unit decided to capitalize on the work already being conducted for both the Title V Maternal and Child Health needs assessment and the community-based needs assessment being performed by the team working on Minnesota's Preschool Development Grant (PDG). From these community-based needs assessments, CBCAP learned that families need help navigating programs and services. There is a critical need to adopt a targeted universal approach to practice, policies, and systems to better support families and communities experiencing inequities due to race and ethnicity, wealth, geography, and other social determinants of health.

Preschool Development Birth Through Five Grant

Findings from the PDG needs assessment indicate that the most pressing issue for early childhood programs in our state is not a lack of programs and resources, but a lack of a centralized process for accessing programs and resources, including Family Home Visiting (FHV). In collaboration with the Minnesota departments of Education, Health, and Human Services, CBCAP and PDG funding will support community-based grants to develop Implementation Hubs (Hubs). Hubs will support pregnant and parenting families with young children up to age eight. Grantees will develop partnerships within their communities to facilitate ease of navigation, referrals, and families getting what they need in a timely way. Grantees will support families and communities experiencing inequities due to race and ethnicity, wealth, and geography – as

determined by data, for their focus population. Hubs are expected to significantly extend the reach of families with young children, including FHV. Hubs will receive funding to do the following:

- Develop universal access points for families coupled with relationship-based, culturally appropriate navigation of programs and systems. Due to COVID-19, guidance for Hubs will include brick and mortar, mobile, and virtual access points.
- Increase access to systems through pilot testing the state's Help Me Connect (based on the national Help me Grow model) system, coupled with the Children's Defense Fund, Minnesota's online Bridge to Benefits platform.
- Grow community engagement and support community-developed solutions (which will look and feel different for each community).

Efforts to Convene Stakeholders

Title V needs assessment staff engaged community stakeholders through the Discovery Survey and community forums where stakeholders identified the highest priority needs. Five community forums were held in-person during August and September 2019, along with four corresponding all-remote events. The final prioritization of Title V priority needs involved the Maternal and Child Health Advisory Task Force and Needs Assessment Leadership Team composed of stakeholders from local government, home visiting, research, and healthcare.

Ongoing Communication

FHV staff interact regularly with Title V, Head Start, and CBCAP staff. FHV and Title V staff and managers are colleagues within the MDH Child and Family Health Division and work closely together. The Child and Family Health Division has begun a strategic planning process to address the priorities identified during the Title V Needs Assessment, and FHV staff will be part of that process.

MDH funds several EHS programs through Evidence-Based Home Visiting (EBHV) grants, and FHV staff interact frequently with local Head Start program staff. At the state level, FHV staff also collaborate with the state's Head Start coordinator at the Minnesota Department of Education, as well as the leadership of the Minnesota Head Start Association.

FHV is working with CBCAP staff (state Child Abuse Prevention and Treatment Act staff) by providing input to Minnesota's Family First Prevention Services Act (FFPSA) Prevention Plan. Joan Brandt, Child and Family Health Division Director, and Dawn Reckinger, Minnesota MIECHV Project Director, are both involved in Minnesota's planning and implementation of the FFPSA. Through this work they provide input into defining candidacy and exploring services for FFPSA, including ongoing conversations around billing, funding, and service structures for defined candidates.

FHV, Title V, Head Start, and CBCAP staff and leadership participate in several early childhood program and policy groups at the state level, including the PDG renewal grant activities, the Help Me Connect initiative, the Early Childhood Longitudinal Data System, and the EHS state planning workgroup.

Conclusion

Minnesota is Dedicated to Family Home Visiting

The majority of FHV programs in Minnesota are funded by the MDH through a variety of mechanisms: state initiated TANF allocation, MIECHV, state funded Nurse-Family Partnership (NFP) Grant, and the state funded Evidence-Based Home Visiting (EBHV) grant. There are currently eight EBHV models being used in the state, seven of which are funded by state and federal dollars. All identified at-risk counties have at least one evidence-based model providing services within that county. However, despite the significant investment in FHV in Minnesota, in most communities MDH-funded programs are serving only a fraction of the families who could benefit from services.

Identifying Counties At-Risk

MDH designated counties as at-risk in three phases. Using data provided by HRSA combined with Minnesota-specific data, we applied a health equity lens to determine the counties where families with young children face the greatest risks to heathy development. A total of 47 counties (54% of counties in the state) were identified. These counties include approximately 65,000 families who may benefit from FHV services.

Substance Abuse Treatment

Many families who are eligible for FHV services struggle with SUDs. Currently, 11 treatment providers contract with the DHS BHD through the WRS program, to provide services for pregnant and parenting women who have SUDs and are in treatment to remain alcohol and drug free. Services include providing coordinated case management and recovery coaching for women and their families across many dimensions including (but not limited to) employment, health, and housing. While these programs provide high quality and gender-responsive care, there is a profound need for more programs, especially for rural communities and communities of color.

Commitment to Health Equity

This needs assessment was purposefully conducted with a health equity lens, with the goal of identifying and addressing disparities as they exist in the FHV landscape within Minnesota.

Minnesota has 11 federally-recognized American Indian nations. Many of these communities have partnerships with EHS. Family Spirit, an evidence-based home visiting program developed for American Indian people was first implemented in Minnesota in 2014, and has since expanded to seven tribal communities. With guidance from John Hopkins University, MDH is participating in a community of practice aimed at improving the implementation of the Family Spirit model among American Indian communities and expanding the Family Spirit model to other communities across the state.

Minnesota is home to significant populations of African and Asian immigrants. Programs have made adaptations to existing models in order to serve these diverse communities. Continued

funding to organizations serving communities of color will provide opportunities for innovative implementation of evidence-based home visiting programs and improve access to culturally-appropriate FHV services. Recruiting, training, and retaining home visitors who are Black or African American, American Indian, or people of color, and continuing to invest in culturally-informed home visiting models is critical to this endeavor.

Dissemination Plans

MDH will disseminate the information in this needs assessment in a variety of formats to include a variety of stakeholders. The document and supporting materials will be available on the MDH FHV website and will be disseminated through the mailing lists of multiple organizations including the Maternal Child Health division of MDH, the Center for Excellence in Maternal and Child Health at the University of Minnesota, the University of Minnesota Rural Health Research Center, and all MDH FHV grantees. A presentation of these findings will be conducted virtually for the MDH CQI collaborative. Other virtual presentations may include grantees, Tribes, other social service providers, and community members.

Future Directions

Despite the significant investment in FHV, MDH-funded programs are still serving only a fraction of the families who could benefit from them. Most at-risk counties are serving less than 20% of eligible families, despite many programs having nearly full caseloads

With the COVID-19 pandemic and the resulting economic impact, future state and local investment in FHV services may be vulnerable. It is unknown what the long-term financial effects of the pandemic will be for the state. At the same time, the pandemic has disproportionately impacted communities of color, exacerbating existing disparities experienced by families with young children. Federal funding will be critical in maintaining and growing the FHV programs available to at-risk families in Minnesota.

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Appendix A – Family Home Visiting Program Inventory Search Process

We compiled a list of current FHV programs in at-risk counties in Minnesota (see Table 7: 2020 MIECHV Needs Assessment: At Risk Counties) to assess, in part, the capacity of existing FHV programs. Our approach included collecting data from the following sources: (a) programs funded by state of federal government and administered by MDH; (b) programs in American Indian communities that are funded and administered by federal government; (c) EHS home-based programs (administered by the Minnesota Department of Education); (d) the MNCTHV; (e) model developer websites; (f) the Minnesota Council for Foundations; and (g) online search. Each of these data sources is described in detail below.

As directed by HRSA, we included information about funded enrollment capacity and the number of families served in fiscal year 2019 (October 1, 2018 - September 30, 2019). In rare cases, data were not available for the fiscal year but were available for calendar year 2019 (e.g., a private mental health clinic provided the ABC model). Because FHV must be voluntary, we excluded compulsory programs mandated as part of child protection processes. Many programs serve multiple counties and do not report caseloads by individual county. Therefore, if a program served more than one county, we allocated the enrollment capacity and number of families served proportionally based upon the number of families in each county eligible to receive services, which we defined as children under the age of five and living below 185% of the FPL. For complete information on how we determined the number of eligible families, see the section on quality and capacity of existing home visiting programs.

Minnesota Department of Health

Since MDH distributes and oversees both federal and state funds that support voluntary, early childhood FHV programs in Minnesota, we began by collecting information about MDH-administered programming. Funding sources included the MIECHV Formula Grant, NFP Grant (state funded), EBHV Grant (state funded) and TANF. MDH staff reviewed grant applications, work plans, budgets and quarterly reports completed by grantees in order to determine target caseloads and actual number of families served.

Home visiting supported through state allocation of TANF funds is used for a variety of types of home visiting, including many that would be outside the scope of this needs assessment, such as single, universal, postpartum home visits. In most cases, we could not obtain information about the type of home visiting being conducted. Furthermore, some organizations reported the number of visits conducted or the number of individuals served rather than the number of families served. Because of these data issues, we did not include home visiting funded by TANF except when we could identify the number of families being served in an established evidence-based model, as opposed to other types of home visiting.

American Indian Home Visiting

We reviewed the Tribal Home Visiting grantees of the Administration for Children and Families. We identified one program in Minnesota that is funded by this mechanism, and we reached out to the program for information on target caseload and number of families served.

Early Head Start

We included data from 33 EHS home-based programs (including 8 programs in American Indian communities). EHS enrollments were reported by individual agencies. When programs covered several counties, we allocated enrollment by population using the technique described above.

Minnesota Coalition for Targeted Home Visiting

We reviewed the MNCTHV Family Home Visiting Directory, published in May of 2020. Many non-model programs that are not administered by MDH or the Minnesota Department of Education were identified with this resource.

Family Home Visiting Model Developer Websites

We reviewed the websites for each of the MIECHV-approved evidence-based models. Each model's website had an online site locator except for Family Spirit, which we contacted directly. No new programs were identified through this search, with the exception of ABC. The ABC model is implemented in Minnesota but is not funded by MDH. To locate ABC programs, we generated a list of ABC providers and organizations and contacted them for information. Sixteen organizations were identified and 14 of those provided information on their 2019 caseloads.

Minnesota Council for Foundations

The directory of Minnesota Council for Foundations was searched to identify programs supported by philanthropic funders. We identified a list of foundations likely to fund FHV programs based on their stated funding priorities (e.g., parenting programs, child welfare programs, family health programs, early childhood programs, and early childhood education). Foundations were contacted to determine whether they funded FHV programs in fiscal year 2019. No new programs were identified in this step.

Electronic Search using Google

As an additional search strategy, an electronic search using Google was conducted for each at-risk county to determine if other FHV programs existed that were not identified in previous steps. The Google search consisted of "county name" + "home visiting" and "county name + family home visiting". Identified programs were not included if their focus was on universal developmental screenings, if they were not voluntary, or consisted of case management services rather than FHV. Three additional programs were identified through this process.

Limitations of the Search Strategy

It is important to note the limitations of this search strategy. First, although we made efforts to identify unique families served by FHV, there was a potential for systematic overlapping or duplication of families that are served across programs. For example, if a family was receiving FHV services in one at-risk county and then moved to a different at-risk county during the fiscal year and also received services, that family would be counted in the caseloads of both organizations.

Second, because organizations that serve multiple counties do not report their caseloads in each county, we allocated caseloads to counties by population of eligible families. While the overall number of families served is correct, the number of families in a given county might be under- or overstated.

Third, information about FHV services funded through a state allocation of TANF was lacking (see description above), which resulted in few of these programs being included in the inventory.

All of these limitations will be addressed to differing degrees through the implementation of the new FHV data system, IHVE, allowing for more precise information for future monitoring and research and evaluation efforts.

Appendix B – List of Acronyms

ABC: Attachment and Biobehavioral Catch-up

ACA: Affordable Care Act

ACE: Adverse Childhood Experience

AOD: Achieve OnDemand

ASQ-3: Ages and Stages Questionnaire, Third Edition

ASQ:SE-2: Ages and Stages Questionnaire: Social Emotional, Second Edition

BHD: Behavioral Health Division

CAPTA: Child Abuse Prevention and Treatment Act

CBCAP: Community Based Child Abuse Prevention

CCAP: Child Care Assistance Program

CDP: Census Designated Place

CQI: Continuous Quality Improvement

CRF: Children's Residential Facilities

DAANES: Drug and Alcohol Abuse Normative Evaluation System

DEED: Department of Employment and Economic Development

DHS: Department of Human Services

EBHV: Evidence-Based Home Visiting

ECFE: Early Childhood Family Education

EHR: Electronic Health Record

EHS: Early Head Start

FFPSA: Family First Prevention Services Act

FHV: Family Home Visiting

FPL: Federal Poverty Level

HFA: Healthy Families America

HomVEE: Home Visiting Evidence of Effectiveness

HRSA: Health Resources and Services Administration

IEP: Individualized Education Program

IHVE: Information for Home Visiting Evaluation

IPV: Intimate Partner Violence

LIA: Local Implementing Agencies

MDH: Minnesota Department of Health

MECSH: Maternal Early Childhood Sustained Home Visiting

MIECHV: Maternal, Infant, and Early Childhood Home Visiting

MIF: Minnesota Initiative Foundations

MNCTHV: Minnesota Coalition for Targeted Home Visiting

MNSASU: Minnesota Survey of Adult Substance Use

MSS: Minnesota Student Survey

NFP: Nurse Family Partnership

PAT: Parents as Teachers

PDG: Preschool Development Birth through Five Grant

REDCap: Research Electronic Data Capture

RPC: Regional Prevention Coordinator

SAIPE: Small Area Income and Poverty Estimates

SAMHSA: Substance Abuse and Mental Health Services Administration

SAPT: Substance Abuse Prevention and Treatment

SBIRT: Screening, Brief Intervention and Referral to Treatment

SEOW: State Epidemiological Outcomes Workgroup

SUD: Substance Use Disorder

SUMN: Substance Use Minnesota

TANF: Temporary Assistance for Needy Families

UCR: Uniform Crime Reporting

WIC: Women, Infants, and Children Program

WRS: Women's Recovery Services