

# **Design of the Mother and Infant Home Visiting Program Evaluation Long-Term Follow-Up**

## **Executive Summary**



**OPRE Report 2021-16  
February 2021**

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**Authors: Kristen Faucetta, Charles Michalopoulos, Ximena A. Portilla,  
Ashley Qiang, Helen Lee, Megan Millenky, and Marie-Andrée Somers**

### Submitted to:

**Nancy Geyelin Margie and Laura Nerenberg, Project Officers**

Office of Planning, Research, and Evaluation  
Administration for Children and Families  
U.S. Department of Health and Human Services

**Project Director: Charles Michalopoulos**

MDRC  
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New York, NY 10281

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# Overview

## Introduction

Children develop fastest in their earliest years, and the skills and abilities they develop in those years help lay the foundation for future success. Early negative experiences can contribute to poor social, emotional, cognitive, behavioral, and health outcomes both in early childhood and in later life. One approach that has helped parents and their young children is home visiting, which provides individually tailored support, resources, and information to expectant parents and families with young children. Many early childhood home visiting programs work with low-income families to help ensure the healthy development and well-being of their children.

In 2010, Congress authorized the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program by enacting section 511 of the Social Security Act, 42 U.S.C. § 711, which also appropriated funding for fiscal years 2010 through 2014. Subsequently enacted laws extended funding for the program through fiscal year 2022. The program is administered by the Health Resources and Services Administration (HRSA) in collaboration with the Administration for Children and Families (ACF) within the U.S. Department of Health and Human Services (HHS). The initiation of the MIECHV Program began a major expansion of evidence-based home visiting programs for families living in at-risk communities. The legislation authorizing MIECHV recognized that there was considerable evidence about the effectiveness of home visiting, but also required an evaluation of MIECHV in its early years, which became the Mother and Infant Home Visiting Program Evaluation (MIHOPE). The overarching goal of MIHOPE is to learn whether families and children benefit from MIECHV-funded early childhood home visiting programs, and if so, how. MIHOPE includes the four evidence-based home visiting models that 10 or more states chose in their fiscal year 2010-2011 plans for MIECHV funding: Early Head Start – Home-based option, Healthy Families America, Nurse-Family Partnership, and Parents as Teachers. From October 2012 to October 2015, a total of 4,229 families entered the study.

Given the positive effects found in previous long-term studies of home visiting and previous findings that the benefits of home visiting outweigh the costs only after children enter elementary school, ACF and HRSA initiated plans to design long-term follow-ups with the families who are participating in MIHOPE. Under contract with ACF, MDRC is conducting this work in partnership with Columbia University and Mathematica Policy Research. ACF and HRSA were interested in ensuring that any additional follow-ups build on information from the earlier waves of data collection to the greatest extent

possible, and that any proposed follow-up points build on one another. This long-term follow-up phase is called MIHOPE-LT. This report presents the proposed design for potential long-term follow-ups with MIHOPE families through the time when their children are in high school. The report also presents the detailed design for the follow-up that is occurring when children are in kindergarten.

## **Primary Research Questions**

The four primary research questions that the long-term follow-ups were designed to address are:

1. What are the long-term effects of being assigned to receive evidence-based home visiting for families who enrolled in MIHOPE?
2. Are the long-term effects of home visiting larger for some families than for others?
3. What are the pathways through which home visiting affects families' longer-term outcomes?
4. How do the monetary benefits of home visiting compare with its costs over the long term?

## **Purpose**

Several previous studies of the four home visiting models included in MIHOPE have provided information on the long-term effects of home visiting programs. MIHOPE-LT can expand this body of evidence. The previous studies had relatively small samples, were model-specific, and did not examine the same outcomes in the same way across models, making it difficult to summarize across studies and models. In contrast, MIHOPE-LT will measure the same outcomes for all four evidence-based models included in MIHOPE. In addition, most of the previous long-term studies were completed many years ago. Home visiting programs have changed over time, both because of statutory requirements for federal funding through the MIECHV Program and because programs and models are continually evolving through quality-improvement efforts. Moreover, the context in which the programs operate, and the program participants, have also changed. As programs evolve and program context changes, additional evaluation can determine whether programs continue to be effective in meeting their goals.

## **Key Findings and Highlights**

MIHOPE estimated the effects of MIECHV-funded early childhood home visiting programs on family and child outcomes around the time children were 15 months of age and found small positive effects for families across several outcome areas. (See Charles Michalopoulos, Kristen Faucetta, Carolyn J. Hill, Ximena A. Portilla, Lori Burrell, Helen Lee, Anne Duggan, and Virginia Knox, *Impacts on Family Outcomes of Evidence-Based Early Childhood Home Visiting: Results from the Mother and Infant Home Visiting Program Evaluation*, OPRE Report 2019-07.) Contact with the MIHOPE families was maintained via short surveys that were completed around the time children were 2.5 and 3.5 years of age.

The MIHOPE-LT study team identified the four primary research questions listed above and proposed a study design that could be used to answer these questions. A follow-up when children are in kindergarten began in January 2019, and the plans for this data collection are discussed in detail in this report. Three other potential follow-up time points based on the participating child's expected progression through school were also identified: third grade, middle school, and high school. Obtaining information about families' well-being over time might be particularly important for answering the question of how the monetary benefits of home visiting compare with its costs, because benefits may continue to accrue as children get older. This report does not present detailed plans for follow-ups past kindergarten. Detailed study designs would need to be developed in the future if follow-up at later time points was to be conducted.

## **Methods**

MIHOPE included 88 local home visiting programs in 12 states. More than 4,200 women who were pregnant or had children younger than six months of age were randomly assigned to a MIECHV-funded home visiting program or to a control group who received information about other appropriate services in the community.

For the kindergarten follow-up, data collection methods are similar to those used for the MIHOPE follow-up that occurred when children were 15 months of age. Specifically, information is being gathered from a structured interview conducted with mothers. The study is also drawing on video-recorded interactions of mothers and children playing with toys; interviewer observations of parental warmth and children's self-regulation; direct assessments of children's language skills, math skills, and executive function; direct assessments of mothers' executive function; state administrative child welfare data; state school records data; federal administrative Medicaid data; federal employment and

earnings data from the National Directory of New Hires; and a survey conducted with children's teachers.

## Acknowledgments

We would like to acknowledge a number of people who offered guidance on the design for the Mother and Infant Home Visiting Program Evaluation Long-Term Follow-Up (MIHOPE-LT). Throughout its design phase, MIHOPE-LT has benefited greatly from advice from the staff at the U.S. Department of Health and Human Services — including Naomi Goldstein, Nancy Geyelin Margie, Laura Nerenberg, and Maria Woolverton from the Administration for Children and Families; Rachel Herzfeldt-Kamprath, Laura Kavanagh, and Kyle Peplinski from the Health Resources and Services Administration; and Judith Labiner-Wolfe, Michael Lu and David Willis, formerly of the Health Resources and Services Administration.

The MIHOPE-LT design was informed by discussions with representatives from the four evidence-based home visiting models included in MIHOPE (Early Head Start – Home-based option, Healthy Families America, Nurse-Family Partnership, and Parents as Teachers). The team also solicited suggestions from other evidence-based home visiting models; from state grantees of the Maternal, Infant, and Early Childhood Home Visiting program; and from the Home Visiting Coalition.

Mark Appelbaum, Libby Doggett, Anne Duggan, Greg Duncan, Beth Green, Mark Greenberg, Rob Grunewald, Brenda Jones Harden, Cynthia Minkovitz, Jelena Obradovic, and Glenn Roisman participated in conversations about the design of the kindergarten follow-up. Jeanne Brooks-Gunn and Marisa Morin at Columbia University provided invaluable advice on the kindergarten mother-child interactions, and Phaedra Corso and Justin Ingels at the University of Georgia contributed to the plans for benefit-cost analysis.

We also received thoughtful observations on the study design and comments on early drafts of this report from Virginia Knox, JoAnn Hsueh, Meghan McCormick, Cindy Redcross, Richard Hendra, and Alice Tufel at MDRC. Patrick Cremin, Emily Davies, Cullen MacDowell, and Mallory Undestad assisted in checking the report for accuracy. Ann Kottner did the production work and prepared the report for publication.

Finally, we are grateful to the states and local programs whose participation made this study possible and especially to the families in the study for their continued contributions. Without them, this study would not be possible.

The Authors



## Executive Summary

Children develop fastest in their earliest years, and the skills and abilities they develop in those years lay the foundation for their future success.<sup>1</sup> Similarly, early negative experiences can contribute to poor social, emotional, cognitive, behavioral, and health outcomes both in early childhood and in later life. Children growing up in poverty tend to be at greater risk of encountering adverse experiences that negatively affect their development. One approach that has helped is home visiting, which provides individually tailored support, resources, and information to expectant parents and families with young children. Many early childhood home visiting programs aim to support the healthy development of infants and toddlers and work with low-income families in particular to help ensure their well-being.

In 2010, Congress authorized the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program by enacting section 511 of the Social Security Act, 42 U.S.C. § 711, which also appropriated funding for fiscal years 2010 through 2014.<sup>2</sup> Subsequently enacted laws extended funding for the program through fiscal year 2022.<sup>3</sup> The program is administered by the Health Resources and Services Administration (HRSA) in collaboration with the Administration for Children and Families (ACF) within the U.S. Department of Health and Human Services. The initiation of the MIECHV Program began a major expansion of evidence-based home visiting programs for families living in at-risk communities.

The legislation authorizing MIECHV recognized that there was considerable evidence about the effectiveness of home visiting, but also required an evaluation of MIECHV in its early years,<sup>4</sup> which became the Mother and Infant Home Visiting Program Evaluation (MIHOPE). The overarching goal of MIHOPE is to learn whether families and children benefit from MIECHV-funded early childhood home visiting programs, and if so, how.<sup>5</sup>

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<sup>1</sup>National Research Council and Institute of Medicine (2000).

<sup>2</sup>Social Security Act of 1935. SEC. 511 [42 U.S.C. 711] (j) (1) (2010).

<sup>3</sup>Funds for subsequent fiscal years were appropriated by section 209 of the Protecting Access to Medicare Act of 2014, Pub. L. 113-93 (fiscal year 2015); section 218 of the Medicare Access and Children's Health Insurance Program Reauthorization Act of 2015, Pub. L. 114-10 (fiscal years 2016-2017); and section 50601 of the Bipartisan Budget Act of 2018, Pub. L. 115-123 (fiscal years 2018-2022).

<sup>4</sup>Social Security Act of 1935. SEC. 511 [42 U.S.C. 711] (g) (2) (2010).

<sup>5</sup>MIHOPE is studying those programs as they operated from 2012 through 2017.

Given the positive effects found in previous long-term studies of home visiting, as well as previous findings that the benefits of home visiting outweigh the costs only after children enter elementary school,<sup>6</sup> ACF and HRSA initiated plans to design long-term follow-ups with the families who are participating in MIHOPE. Under contract with ACF, MDRC is conducting this work in partnership with Columbia University and Mathematics Policy Research. This long-term follow-up phase is called MIHOPE-LT, and the study design is the subject of this report.

The purpose of this design phase was to determine the most fruitful times to collect data to answer questions of interest in the context of a study that follows families over time. A study that follows families over time provides an opportunity to examine child and family outcomes at individual time points as children get older, and to learn about the trajectories of child and family outcomes. ACF and HRSA were interested in ensuring that any additional follow-ups build on information from the earlier waves of data collection to the greatest extent possible, and that any proposed follow-up points build on one another.<sup>7</sup>

## **MIHOPE-LT: Context and Goals**

Several previous studies of the four home visiting models included in MIHOPE have provided information on the long-term effects of home visiting programs.<sup>8</sup> MIHOPE-LT can expand this body of evidence. The previous studies had relatively small samples (most included fewer than 1,000 families), were model-specific, and did not examine the same outcomes in the same way across models, making it difficult to summarize across studies and models. In contrast, MIHOPE-LT will measure the same outcomes for the four evidence-based models included in MIHOPE: Early Head Start – Home-based option, Healthy Families America, Nurse-Family Partnership, and Parents as Teachers. In addition, most of the previous long-term studies were completed many years ago.<sup>9</sup> Home visiting programs have changed over time, both because of statutory requirements for federal funding through the MIECHV Program, and because programs and models are continually evolving through quality improvement efforts. Moreover, the context in which the programs operate, and the program participants, have also changed.

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<sup>6</sup>See Michalopoulos, Faucetta, Warren, and Mitchell (2017).

<sup>7</sup>MIHOPE had already collected data from families when children were 15 months of age, 2.5 years of age, and 3.5 years of age.

<sup>8</sup>See Michalopoulos, Faucetta, Warren, and Mitchell (2017).

<sup>9</sup>Most of the studies began enrolling families before 1995, and most follow-ups occurred before 2005.

As programs evolve and program context changes, additional evaluation can determine whether programs continue to be effective in meeting their goals.

The primary goal of MIHOPE-LT is to measure the long-term effects of home visiting programs on family outcomes. To that end, the study team aimed to propose a study design that will try to answer these primary research questions:

1. What are the long-term effects of being assigned to receive evidence-based home visiting for families who enrolled in MIHOPE?
2. Are the long-term effects of home visiting larger for some families than for others?
3. What are the pathways through which home visiting affects families' longer-term outcomes?
4. How do the monetary benefits of home visiting compare with its costs over the long term?

The next section describes the original MIHOPE design in order to familiarize readers with the foundation for MIHOPE-LT.

## **Background: The MIHOPE Design**

MIHOPE is a randomized controlled trial. That is, to provide reliable estimates of home visiting programs' effects, women who enrolled in the study were randomly assigned to a MIECHV-funded local home visiting program, or to a control group who received information about other appropriate services in the community.

MIHOPE included 88 local home visiting programs in 12 states: California, Georgia, Illinois, Iowa, Kansas, Michigan, Nevada, New Jersey, Pennsylvania, South Carolina, Washington, and Wisconsin. States were selected based on a number of criteria, including whether they planned to implement more than one of the four evidence-based models that MIHOPE included and to support five eligible local programs or more, whether they contributed geographic diversity to the sample, and whether they contributed some local programs operating in nonmetropolitan areas to the final sample.

The 88 local programs that participated in MIHOPE consisted of 19 Early Head Start programs, 26 Healthy Families America programs, 22 Nurse-Family Partnership programs, and 21 Parents as Teachers programs. As was true for states, local programs also had to meet several criteria to be included in MIHOPE, such as having been in operation for at least two years when they entered the study and being able to recruit enough families to fill the program slots and allow for a randomly chosen control group.

## **Characteristics of MIHOPE Families**

A total of 4,229 families entered the study from October 2012 to October 2015. In order to be eligible for MIHOPE, women had to be at least 15 years of age, be either pregnant or have a child younger than 6 months of age when they enrolled in the study, be able to speak English or Spanish well enough to provide consent and complete a survey when they entered the study, and not be receiving home visiting services from a participating local program already. They also had to be interested in receiving home visiting services and had to meet the local program's eligibility criteria.

Women participating in MIHOPE tended to be young, economically disadvantaged, and racially and ethnically diverse, and they exhibited a variety of risks at study entry that could affect their children's development. Almost two-thirds of the women were younger than 25 years of age, and 35 percent were younger than 21 years of age. Forty-two percent of the women in the sample did not have high school diplomas; as might be expected, older women in the sample were more likely to have completed high school. Nearly 75 percent of women in the sample were receiving benefits from the Special Supplemental Nutrition Program for Women, Infants, and Children, and more than half were enrolled in the Supplemental Nutrition Assistance Program. More than half of the women reported that their households had experienced food insecurity in the past year (meaning there were times when they worried about food or ran out of it), nearly one-third reported substance use before pregnancy, over two-fifths reported symptoms of either depression or anxiety, and about one-fifth reported experiencing or perpetrating physical acts of intimate partner violence.

## **Early Effects on MIHOPE Families**

The first follow-up phase of MIHOPE included an impact analysis to estimate the effects of MIECHV-funded home visiting programs in a broad range of outcome areas mentioned in the authorizing legislation and for different subgroups of families, using data that were gathered when children were about 15 months of age.<sup>10</sup> Effects were estimated in the following outcome areas: (1) prenatal, maternal, and newborn health; (2) child health and development, including child maltreatment; (3) parenting skills; (4) crime or domestic violence; (5) family economic self-sufficiency; and (6) referrals and service coordination.<sup>11</sup>

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<sup>10</sup>Michalopoulos et al. (2019) describes the results of the impact analysis and analysis of impact variation from the first phase of MIHOPE.

<sup>11</sup>SEC. 511 [42 U.S.C. 711] (d) (2) (B). The legislation also indicated that programs should improve school readiness and academic achievement, but children in MIHOPE were too young to provide information about that area at the follow-up that occurred when they were 15 months of age.

The impact analysis when children were 15 months of age found that there were positive effects of home visiting for families in MIHOPE, and that most estimated effects were similar to but somewhat smaller than those found in past studies of individual home visiting models. However, it is important to note that MIHOPE differs from those studies in many respects. For example, most of those studies were conducted in a single local area rather than including locations across the country, and some were conducted many years ago, when similar services were less likely to be available to control group families. Estimated effects are statistically significant for 4 of the 12 confirmatory outcomes: the quality of the home environment, the frequency of psychological aggression toward the child, the number of Medicaid-paid child emergency department visits, and child behavior problems.<sup>12</sup> Overall, for 9 of the 12 confirmatory outcomes, program group families fared better than control group families on average, which is unlikely to have occurred for the study sample if the home visiting programs made no true difference in family outcomes. In addition, results for clusters of exploratory outcomes suggest that home visiting may improve maternal health and might reduce household aggression.<sup>13</sup>

## **Checking in with Families When Children Are Preschool Age**

In addition to following up with the MIHOPE families when the study child was 15 months of age, follow-up occurred at two later points in time: (1) when the child was 2.5 years of age, and (2) when the child was 3.5 years of age. The phase of MIHOPE that includes these two later points is called MIHOPE Check-in. Data collection for this phase began in September 2015 and concluded in June 2019.

MIHOPE Check-in included brief surveys to gather information from parents about child and family well-being. Information about these outcomes allows the study team to estimate ongoing effects of home visiting as children grow older. Updated contact information was also obtained at each point during the MIHOPE Check-in phase in preparation for the MIHOPE long-term follow-up. Because the MIHOPE Check-in data

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<sup>12</sup>To focus the analysis on areas where home visiting programs were likely to have their greatest short-term effects, the study team chose 12 outcomes based on the evidence of effects from the four evidence-based models included in MIHOPE that existed before the analysis began, the policy relevance of those outcomes, and the quality of the tools available to measure the outcomes. Following the terminology used in a report written for the Institute of Education Sciences, the 12 outcomes are considered “confirmatory.” See Schochet (2008).

<sup>13</sup>Exploratory outcomes capture other aspects of the areas the legislation intended home visiting to improve. These outcomes were considered exploratory because past home visiting studies had not found effects on them or they had not been examined in previous studies. They were still thought to be areas where MIECHV-funded programs might improve family outcomes.

Household aggression includes experiences of intimate partner violence and child maltreatment.

were still being collected when the long-term follow-up study was designed, they did not contribute to the MIHOPE-LT design.

## **MIHOPE-LT Kindergarten Follow-Up**

The next follow-up with MIHOPE families is occurring when children are in kindergarten. Children of MIHOPE families are attending kindergarten in four cohorts, from the 2018-2019 school year to the 2021-2022 school year.

Measuring children’s cognitive, behavioral, self-regulatory, and social-emotional skills before formal schooling begins or at the outset of formal schooling will provide important data on intermediate effects of home visiting. In addition, a wealth of literature demonstrates that children’s math, language, and social-emotional skills at the time of the transition to formal schooling are predictive of academic and behavioral outcomes over the longer term,<sup>14</sup> and a follow-up during the kindergarten year will allow the study team to measure these key mediators. Consistent with this research evidence, the legislation that authorized MIECHV indicated that home visiting programs are expected to improve school readiness.<sup>15</sup>

The study team identified eight areas of adult and child functioning and behavior where effects of home visiting services are most likely to be observed when children are kindergarten age:

- Family economic self-sufficiency
- Maternal positive adjustment<sup>16</sup>
- Maternal behavioral health<sup>17</sup>
- Family environment and relationship between parents
- Parent-child relationship and interactions
- Parental support for child’s cognitive development

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<sup>14</sup>Duncan et al. (2007); Eisenberg, Valiente, and Eggum (2010); Portilla et al. (2014).

<sup>15</sup>SEC. 511 [42 U.S.C. 711] (c) (1) indicates that grants are to be made to enable eligible entities to deliver home visiting services in order to promote improvement in several outcome areas that include school readiness. SEC. 511 [42 U.S.C. 711] (d) (1) (A) includes school readiness in the list of benchmark areas that eligible entities are expected to improve.

<sup>16</sup>The term “maternal positive adjustment” is used here to refer to aspects of maternal functioning such as parenting stress, mastery, self-regulation, and household chaos.

<sup>17</sup>This area includes maternal mental health and maternal substance use and alcohol use.

- Child social, emotional, and cognitive functioning and school readiness
- Receipt of and connection to services

Two additional areas (social support; school and neighborhood context) are being measured at the kindergarten follow-up primarily because they can provide important context and information about characteristics that may moderate the long-term impacts of home visiting. Table ES.1 shows all the areas that will be examined at the kindergarten follow-up.

At the kindergarten follow-up, the study team plans to conduct an impact analysis and mediational analyses. The impact analysis will assess the effectiveness of MIECHV-funded early childhood home visiting programs in improving the outcomes of families and children when the study child is in kindergarten, both overall and across key subgroups of families and programs. Mediational analyses will be conducted to shed light on the pathways through which home visiting has longer-term effects on families. In other words, the study will look at the relationships between earlier outcomes (from the 15-month, 2.5-year, and 3.5-year follow-ups) and outcomes when the child is in kindergarten.

### **MIHOPE-LT Follow-Up Points After Kindergarten**

As indicated above, the study team was contracted to design long-term follow-ups that could build on information from earlier waves of data collection and build on one another. Three other potential follow-up points were also identified through the literature reviews and consultations with experts conducted by the MIHOPE-LT study team: third grade, middle school, and high school. This report briefly describes the rationale for data collection at these three later time points, but does not present detailed plans for follow-ups past kindergarten.

In addition, brief check-ins with families (to obtain updated contact information and maintain engagement with the study) could occur periodically, and administrative data could be obtained throughout the follow-ups and could be collected past the last follow-up with families.

Obtaining information about families' well-being over time might be particularly important for answering the question of how the monetary benefits of home visiting compare with its costs. Because benefits may continue to accrue as children get older,

**Table ES.1**

**MIHOPE-LT Kindergarten Constructs**

Outcome Area	Construct
Family economic self-sufficiency	<ul style="list-style-type: none"> <li>• Public assistance receipt</li> <li>• Employment and earnings</li> <li>• Income</li> <li>• Material hardship</li> </ul>
Maternal positive adjustment	<ul style="list-style-type: none"> <li>• Food insecurity</li> <li>• Housing status and mobility</li> <li>• Highest level of education</li> <li>• Subsequent pregnancies and births</li> </ul>
Maternal behavioral health	<ul style="list-style-type: none"> <li>• Mastery</li> <li>• Mobilizing resources</li> <li>• Parenting stress</li> <li>• Parent-child separations</li> </ul>
Family environment and relationship between parents	<ul style="list-style-type: none"> <li>• Household chaos</li> <li>• Self-regulation (working memory)</li> <li>• Child school attendance and tardiness</li> </ul>
Parent-child relationship and interactions	<ul style="list-style-type: none"> <li>• Depressive symptoms</li> <li>• Drug use</li> </ul>
Parental support for child's cognitive development	<ul style="list-style-type: none"> <li>• Mother's relationship status</li> <li>• Mother's relationship with biological father of child</li> </ul>
Child functioning (school readiness)	<ul style="list-style-type: none"> <li>• Family conflict</li> <li>• Physical violence: perpetration</li> <li>• Physical violence: victimization</li> <li>• Experience with battering</li> </ul>
Receipt of and connection to services	<ul style="list-style-type: none"> <li>• Parental warmth</li> <li>• Parent-child interaction</li> <li>• Abuse (physical, sexual)</li> </ul>
Social support	<ul style="list-style-type: none"> <li>• Psychological aggression</li> <li>• Neglect</li> </ul>
School and neighborhood context	<ul style="list-style-type: none"> <li>• Home literacy environment</li> <li>• Cognitive stimulation</li> </ul>
	<ul style="list-style-type: none"> <li>• Behavior problems</li> <li>• Social-emotional skills</li> <li>• Learning behaviors and approaches to learning</li> </ul>
	<ul style="list-style-type: none"> <li>• Disciplinary incidents</li> <li>• Executive function</li> <li>• Math skills</li> <li>• Language skills</li> </ul>
	<ul style="list-style-type: none"> <li>• Child received any early intervention services</li> <li>• Child care setting before kindergarten</li> <li>• Child has health insurance coverage</li> </ul>
	<ul style="list-style-type: none"> <li>• Child emergency department visits</li> <li>• Child hospitalizations</li> <li>• Child receiving any special education services/has an individualized education program</li> </ul>
	<ul style="list-style-type: none"> <li>• Involvement of the biological father or father figure with the child</li> <li>• Social support</li> </ul>
	<ul style="list-style-type: none"> <li>• School characteristics</li> <li>• Neighborhood disadvantage</li> </ul>

obtaining information about family well-being after the children's kindergarten year might allow the study to measure more of the benefits. It is likely that a benefit-cost analysis could be conducted at the kindergarten follow-up point, but using the kindergarten data might require projecting the value of benefits that accrue later than kindergarten or



measuring only the benefits that accrue through kindergarten. Both are accepted strategies, but either could limit how precisely the study could answer the question of how the monetary benefits of home visiting compare with its costs.

## **Contributions of MIHOPE-LT**

MIHOPE-LT will allow for the examination of long-term effects of MIECHV-funded home visiting programs and can expand the evidence from previous long-term studies of home visiting programs. MIHOPE-LT will also build on the evidence from the first follow-up with MIHOPE families, which occurred when children were about 15 months of age and provided information on the short-term effects of MIECHV-funded home visiting programs. It will also build on the data from the brief MIHOPE Check-in surveys that were collected when children were about 2.5 years of age and 3.5 years of age. Data from these surveys were not yet analyzed at the time MIHOPE-LT was designed. Additional follow-ups can allow the same constructs to be measured at multiple time points so that effects in particular areas can be more fully understood. Additional follow-up also enables the examination of constructs that were not, and in some cases could not be, measured when children were 15 months, 2.5 years, or 3.5 years of age.

MIHOPE-LT can provide information about how small, measurable changes in particular areas of adult and child functioning that were the result of an early childhood intervention affect longer-term well-being. Information about these connections could be used by policymakers and researchers who are interested in the life trajectories of children and families.

Home visiting programs intervene early in the lives of children whose families face a variety of risk factors because these programs aim to improve the long-term well-being of at-risk children. MIHOPE-LT will build evidence about these intended long-term effects and will provide information on whether and how home visiting might have changed the life course of MIHOPE families.

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