



*Executive
Summary*

Implementation of Evidence-Based Early Childhood Home Visiting

RESULTS FROM
THE MOTHER AND
INFANT HOME
VISITING PROGRAM
EVALUATION

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OPRE Report 2018-76A



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Implementation of Evidence-Based Early Childhood Home Visiting: Results from the Mother and Infant Home Visiting Program Evaluation

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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 their future success. 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 service strategy that has improved these outcomes is early childhood home visiting, which provides information, resources, and support to expectant parents and families with young children, typically infants and toddlers, in their home environments.

A substantial literature has provided evidence of home visiting impacts on family functioning, parenting, and child outcomes. However, there are many gaps in knowledge about home visiting programs, including a lack of information on program implementation. Evaluations of home visiting have rarely collected detailed information on the services provided to families, so it is difficult to know whether impacts on particular outcomes of interest are associated with implementation or features of the home visiting model.

This implementation research report describes the local programs, home visiting staff, and families who participated in the Mother and Infant Home Visiting Program Evaluation (MIHOPE), a national evaluation of the federal Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program launched in 2011. This national evaluation is systematically examining how program features and implementation systems are associated with services delivered and impacts across four of the home visiting models designated as evidence-based by the U.S. Department of Health and Human Services: Early Head Start – Home-based option, Healthy Families America, Nurse-Family Partnership, and Parents as Teachers.

Primary Research Questions

1. What services did families receive in home visiting programs?
2. How are characteristics of families, home visitors, local programs, other home visiting stakeholders (such as the federal MIECHV program and evidence-based models), and communities associated with differences in the services that families received?

Purpose

The purpose of this research is to provide detailed information on the actual services provided to families and how those services vary depending on the characteristics of families, home visitors, local programs, other home visiting stakeholders, and communities. Further analyses that will be published in a subsequent report will build on this analysis to learn about how implementation features are associated with program impacts. Together, these publications will inform current and future efforts to strengthen home visiting services and their benefits for families.

Key Findings and Highlights

- **The MIECHV-funded local programs served families in disadvantaged communities with high levels of risk.** Mothers participating in MIHOPE tended to be young and economically disadvantaged and exhibited a variety of risks that could affect their children's development.
- **Similar to prior research, families in MIHOPE participated in home visiting for eight months on average, which is less than expected by the four evidence-based models in the study.** More disadvantaged families tended to participate for a shorter time than other families.
- **Local programs focused on improving parenting and child development outcomes, areas historically emphasized by all four of the evidence-based models.** A majority of visits discussed these topics. Home visitors attended more training and felt most well supported and effective in improving parenting and child development, compared with other areas.
- **Services related to sensitive topics were tailored to family needs.** Home visitors addressed sensitive topics, such as substance use, mental health, or intimate partner violence, more often with families who were more likely to need help in these areas, compared with other families. Home visitors who attended training on these topics addressed them more often with families.

Methods

MIHOPE was designed to study home visiting effectiveness in local programs as they operated under the auspices of the MIECHV program and includes 88 local programs that use one of four evidence-based home visiting models: Early Head Start – Home-based option, Healthy Families America, Nurse-Family Partnership, and Parents as Teachers.

Since it can be difficult to compare many outcomes across a broad range of children's ages, MIHOPE included only families in which the mother was age 15 years or older and was pregnant or her focal child was less than 6 months old. The MIHOPE research team chose this age range for children because the majority of MIECHV-funded local programs aimed to enroll women during pregnancy or shortly after childbirth. To provide reliable estimates of the effects of home visiting programs, the MIHOPE team randomly assigned families who were interested in and eligible for a MIECHV-funded local program participating in MIHOPE, and who consented to be in the study, to either the MIECHV-funded local program or a control group that was referred to other appropriate services in the community. From October 2012 to October 2015, a total of 4,229 families entered the study. Over the course of MIHOPE, 11 families withdrew from the study for a final analytical sample of 4,218 families (2,104 in the program group; 2,114 in the control group).

For the implementation research analysis, the samples of interest are the 2,104 families randomly assigned to the MIHOPE program group and the staff at all 88 local programs. The entire period of implementation research data collection lasted from September 2012 to June 2016. Implementation research activities included family surveys and observations of families' home and external environments at baseline, family service logs, observations of home visitor-family interactions, staff surveys, semi-structured qualitative interviews with home visitors, training logs, supervision logs, inventories of community services, surveys and interviews with evidence-based model developers, and reviews of local program and evidence-based model documents.

Acknowledgments

The Mother and Infant Home Visiting Program Evaluation (MIHOPE) is a large and complex project that resulted from the collaboration of many people and organizations. Throughout the implementation research analysis, MIHOPE has benefited greatly from the advice from staff at the U.S. Department of Health and Human Services. At the Office of Planning, Research, and Evaluation, Lauren Supplee helped launch the study and guide it during its early years, while Nancy Geyelin Margie and Laura Nerenberg have provided regular feedback to the study team more recently. At the Health Resources and Services Administration (HRSA), Kyle Peplinski and Rachel Herzfeldt-Kamprath have also weighed in on various project issues.

MIHOPE's ability to investigate the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program comes from the states and local programs that participated in the study, and we are grateful for their involvement. We also thank the project's site operations team, which was led by Sharon Rowser and Dina Israel at MDRC, and had team members at MDRC (Marie Cole, Rebecca Hughes Behrmann, Magdalena Mello, Alexander Vazquez, Ashley Weech, Evan Weissman, Suzanne Finkel, Katie Egan, Ada Tso, and Theresa Lauer), James Bell Associates (Nicole Miller, Kerry Ryan, Lance Till, Susan Zaid, Alexandra Joraanstad, and Patrice Cachat), and Mathematica Policy Research (Luke Heinkel, Jacob Hartog, and Cheri Vogel). In addition, this effort would not have been possible without the assistance of the HRSA project officers and MIECHV administrators whom the team consulted in the various states, and particularly in the 12 states that were eventually chosen to participate in this study.

The discussion of the evidence-based home visiting models was greatly informed by available program documentation and through surveys and discussions with the evidence-based model developers, including Patricia Marickovich, David Jones, Angie Godfrey, and Christina Benjamin at Early Head Start – Home-based option; Cydney Wessel, Kathleen Strader, and Kathryn Harding at Healthy Families America; David Olds, Molly O'Fallon, Ely Yost, and Joan Barrett at Nurse-Family Partnership; and Allison Kemner, Kerry Caverly, and Karen Guskin at Parents as Teachers.

In addition to information collected from the evidence-based model developers, this report contains a great deal of information on the local home visiting programs and families that entered the study. For that, we owe our gratitude to the local programs and families for providing the information and to a large data team that collaborated across multiple organizations to collect, process, and analyze the information.

Desiree Alderson, with Electra Small, oversaw all aspects of the implementation research data work for MIHOPE. Electra Small also developed the web-based surveys and logs used with home visiting staff members, with assistance from Melinda Jackson

and Patricia Chou, who additionally helped maintain the survey and log systems. Martha Kovac led a large Mathematica Policy Research team that included field interviewers at the 88 MIHOPE sites and phone interviewers at the survey operations center. Ms. Kovac was assisted in her work by a number of people, including Sara Bernstein, Joan Gutierrez, Andrew Hurwitz, Cleo Jacobs Johnson, Annalee Kelly, Shannon Monahan, Ann Ponti, Scott Reid, Nydia Ramos, William Reeves, Margie Rosa, Boris Shkolnik, and Sara Skidmore.

Kelly Saunders led MDRC's efforts to analyze information on participating families, and directed the work of Caitlin Gest and Robert Mitchell in doing so. Samantha Xia led MDRC's efforts to analyze information collected from the program manager surveys, and directed the work of Eric Cohn in doing so. Alexandra Parma was also involved in early analyses of this data. Both Ms. Xia and Mr. Cohn were instrumental in conducting the multivariate analysis across multiple data sources. Amanda Latimore from Johns Hopkins University and Tod Mijanovich from New York University provided expert guidance during the stage of conceptualizing and planning for the multivariate analysis.

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Lori Burrell led Johns Hopkins University's efforts to analyze the information collected from home visitor and supervisor surveys and the video recordings, and directed the work of Kay O'Neill, Amanda Gatewood, Jennica Bouquet, Emily Payne, Jane Daniels, Lee Thompson, Patricia Madariaga Villegas, Stephanie Saxton, Alexandra Cirillo Lilli, Ryan Snead, Susan Larson, and Morgan Pardue-Kim in doing so. Jennica Bouquet, Emily Payne, Jane Daniels, and Alexandra Cirillo Lilli also compiled and coded information obtained from the local programs.

Jacob Hartog, with Diane Paulsell, led Mathematica Policy Research's efforts to analyze the information collected on the local programs' community service environments and American Community Survey data on MIHOPE families' community context. Mr. Hartog directed the work of Wamaita Kiambuthi, Sarah LeBarron, Emma Kopa, and Mason DeCamillis in doing so.

The qualitative study would not have been possible without the staff interviews conducted by Melanie Estarziau from James Bell Associates, Kristen Ojo from Johns Hopkins University, and Marie Cole and Ashley Weech from MDRC. Mallory Undestad, Colleen McCullough, and Robert Mitchell from MDRC coded the interview transcripts.

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The Authors

Executive Summary

Early childhood experiences set the stage for health and development across a person's life span. The home is the main setting for these early experiences. Many children are born into families whose circumstances make it challenging for parents to provide the safe, secure, and supportive environment needed to start children on a trajectory for a successful life. As a result, children from low-income families are more likely to suffer from poor social, emotional, cognitive, health, and behavioral outcomes than children from higher-income families. The critical role of early parenting calls for a service strategy that supports over-burdened families and empowers them to overcome the challenges they face and foster the healthy development of their young children.

One such service strategy is early childhood home visiting, which aims to improve outcomes for expectant families and families with young children, typically infants and toddlers, by supporting them in their home environments. Since the 1970s, many models of home visiting have been developed that each address multiple aspects of parenting and child well-being, though the models often originated in specific service sectors, including health, early education, and child welfare. Concurrently, a substantial literature has provided evidence of home visiting impacts on family functioning, parenting, and child outcomes. The literature also provides evidence of various challenges in designing and implementing services so that home visiting achieves its potential as a part of the early childhood system of care.

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 2014.¹ Subsequently enacted laws extended funding for the program through fiscal year 2022.² While home visiting programs were already being implemented across the country, the MIECHV program expanded the availability of evidence-based home visiting.³

¹SEC. 511 [42 U.S.C. 711] (j) (1).

²Funds 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).

³Charles Michalopoulos, Helen Lee, Anne Duggan, Erika Lundquist, Ada Tso, Sarah Crowne, Lori Burrell, Jennifer Somers, Jill H. Filene, and Virginia Knox, *The Mother and Infant Home Visiting Program Evaluation: Early Findings on the Maternal, Infant, and Early Childhood Home Visiting Program*, OPRE Report 2015-11 (Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2015).

The federal MIECHV 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). HRSA distributes funds from the federal MIECHV program to MIECHV state and territory awardees. In 2017, HRSA provided awards to 56 states and territories: 47 state agencies; three nonprofit organizations serving Florida, North Dakota, and Wyoming; the District of Columbia; and five U.S. territories. Awardees distribute funds to local implementing agencies — also commonly referred to as local programs — who work directly with families. Additionally, ACF oversees the Tribal MIECHV program, which, as of 2017, funded 29 Indian tribes, consortia of tribes, tribal organizations, and urban Indian organizations across 16 states. Some tribal grantees directly serve families, while others distribute funds to local programs to serve families.

The authorizing legislation requires awardees to devote the majority of MIECHV funding for home visiting models designated as evidence-based by HHS.⁴ The authorizing legislation also requires that MIECHV-funded early childhood home visiting programs be designed and implemented to work toward demonstrating improvement in the following benchmark outcome areas: (1) prenatal, maternal, and newborn health; (2) child health and development; (3) parenting skills; (4) school readiness and child academic achievement; (5) crime or domestic violence; (6) family economic self-sufficiency; and (7) referrals and service coordination.

The authorizing legislation requires HHS to carry out a rigorous program of research to advance knowledge about the implementation and effectiveness of home visiting programs. Within the resulting program of MIECHV-funded research, the Mother and Infant Home Visiting Program Evaluation (MIHOPE) is a national evaluation to learn about the implementation, effectiveness, and costs of MIECHV-funded evidence-based home visiting programs administered by state awardees (hereafter referred to as “states”). MIHOPE was launched in 2011 by ACF and HRSA, within the U.S. Department of Health and Human Services. MDRC is conducting the evaluation for HHS in partnership with James Bell Associates, Johns Hopkins University, Mathematica Policy Research, the University of Georgia, and Columbia University. The evaluation separately examines program implementation, impacts, and costs.

This report presents findings from the mixed-methods implementation research analysis embedded within MIHOPE. Building on initial findings from the 2015 MIHOPE report to Congress,⁵ this report describes the process for selecting states and local programs for the study; the characteristics of the states, local programs, home visiting staff, and families who participat-

⁴See U.S. Department of Health and Human Services, “Home Visiting Evidence of Effectiveness,” (Washington, DC: Administration for Children and Families, U.S. Department of Health and Human Services, 2017a), website: homvee.acf.hhs.gov.

⁵Michalopoulos et al. (2015).

ed in the implementation research analysis from September 2012 to June 2016; the services received by families; and the features of local programs — as well as characteristics of home visitors and families that are associated with how home visitors deliver services.

As explained below, the MIHOPE implementation research analysis includes a large number of local programs and home visitors, focuses on four different evidence-based models, and uses standardized methods for measuring services delivered to families and factors believed to influence the services received by families. This study design makes it possible to identify features of home visiting, not just of a specific model, that are associated with how services are delivered. In a separate impact report presenting findings about the effects of home visiting on certain outcomes, MIHOPE will address whether and how these implementation features influence the impacts of home visiting on family outcomes. Additionally, a separate report will present estimates of costs for local evidence-based home visiting programs.

MIHOPE Study Design

MIHOPE was designed to study home visiting effectiveness in local programs as they operated under the auspices of the MIECHV program. To receive MIECHV funds, awardees were required to create initial plans that indicated the communities where the funds would be used and the home visiting models that would be supported with those funds. MIHOPE focused on the evidence-based models that were chosen by 10 or more states in their initial plans for MIECHV funding. Of the seven models designated as evidence-based at the start of the MIECHV program, the four models that were chosen by 10 or more states in their initial plans, and therefore met the criteria for inclusion in MIHOPE, were Early Head Start – Home-based option (EHS); Healthy Families America (HFA); Nurse-Family Partnership (NFP); and Parents as Teachers (PAT).

The MIHOPE implementation research analysis goals are:

1. To describe the services that families received in home visiting programs; and
2. To understand how characteristics of families, home visitors, local programs, other home visiting stakeholders (such as the federal MIECHV program and evidence-based models), and communities are associated with differences in the services that families received.

MIHOPE selected 88 local programs from the following 12 states: California, Georgia, Illinois, Iowa, Kansas, Michigan, Nevada, New Jersey, Pennsylvania, South Carolina, Washington, and Wisconsin. There were slightly more HFA local programs (26) and slightly fewer EHS local programs (19) than NFP (22) and PAT local programs (21).

Local home visiting programs entered the study between September 2012 and December 2014. While families were eligible for home visiting if they met the usual eligibility criteria for the local program, not all families eligible for home visiting were eligible to participate in MIHOPE. Since it can be difficult to compare many outcomes across a broad range of children's ages, MIHOPE included only families in which the mother was age 15 years or older and was pregnant or her focal child was less than 6 months old. This child age range was chosen because the majority of MIECHV-funded local programs aimed to enroll women during pregnancy or shortly after childbirth.

To provide reliable estimates of the effects of home visiting programs, the MIHOPE team randomly assigned families who were interested in and eligible for a MIECHV-funded local program participating in MIHOPE, and who consented to be in the study, to either the MIECHV-funded local program or a control group that local program staff referred to other appropriate services in the community. From October 2012 to October 2015, 4,229 families entered the study. Over the course of the study, 11 families withdrew from the study for a final analytical sample of 4,218 families (2,104 in the program group; 2,114 in the control group).

Home Visiting Models Studied in MIHOPE

Home visitors devote the majority of visit time to providing education and support to families. They also provide referrals to and coordination with needed community services. Home visitors gather information from families informally and through formal screening and assessment to identify family strengths, needs, concerns, and interests that they should address directly through education and support during visits or through referral and coordination.

The four evidence-based models in MIHOPE shared the goal of improving outcomes for families throughout their children's early years and beyond. They also follow the basic home visiting framework of gathering information, educating and supporting families, and helping families access other community services designed to improve family health and functioning. The models also differed in the following important ways:

- **Program goals.** While all of the models broadly aimed to help parents improve their children's health and development, the programs' specific goals differed. For example, EHS provided comprehensive services that focused on the development of infants and toddlers, supporting parents in their roles as caregivers and teachers of their children, and promoting school readiness. In addition to the goals of strengthening nurturing parent-child relationships, promoting healthy child growth and development, and enhancing family functioning, HFA had a particular emphasis on preventing child maltreatment and other adverse childhood experiences. NFP had a strong emphasis on prevention and on the social determinants of health. NFP's three goals

were to improve prenatal health and birth outcomes, improve child health and development, and improve families' economic self-sufficiency and maternal life course development. PAT's focus was on supporting families to enhance parents' knowledge of early childhood development, improve parenting practices, help detect early signs of developmental delays and health issues, prevent child maltreatment, and promote children's school readiness and success.

- **Target population and children's ages at enrollment.** The models aimed to serve families who were at heightened risk of poor child outcomes, such as those with low incomes. However, each model's eligibility criteria targeted families with somewhat different types of risk. NFP targeted first-time, low-income mothers. HFA focused on families at risk of child maltreatment or with behavioral health issues, such as challenges with mental health or substance use. EHS sought to serve a broad group of low-income families. PAT had no specific eligibility requirements mandated at the national level. NFP only enrolled women who were pregnant, while the other three models could enroll women when they were pregnant or when they had infants. EHS and PAT also enrolled families whose youngest children were toddlers. (Although as described above, these families were not included in MIHOPE.)
- **Home visitor qualifications.** The four models required different qualifications of their home visitors. NFP required home visitors to be baccalaureate-prepared nurses, EHS required home visitors to have knowledge and experience in child development, PAT required home visitors to have at least a high school credential and a minimum of two years of supervised work experience with young children or parents, and HFA required home visitors to have at least a high school credential and required local programs to look for relevant community-based experience and interpersonal characteristics.

Characteristics of MIHOPE Participants

The MIHOPE implementation research analyzed information for the 2,104 families randomly assigned to the MIHOPE program group and for the staff at all 88 local programs. The entire period of implementation research data collection lasted from September 2012 to June 2016.

Consistent with the MIECHV program's goal of targeting at-risk communities, the local programs served eligible families in disadvantaged communities with high levels of socioeconomic risk. Mothers participating in MIHOPE tended to be young and economically disadvantaged, and exhibited a variety of risks that could affect their children's development. Over a third of mothers in MIHOPE were under 21 years of age. Almost half did

not have schooling beyond high school. Thirty-one percent reported illegal use of drugs or drinking heavily before becoming pregnant. Over a third reported symptoms of depression and about one-fifth reported symptoms of anxiety. About one-fourth of mothers had experienced or perpetrated intimate partner violence in the past year. More than half of households reported they had run out of food or worried about running out of food in the past year. Close to 90 percent of households received public assistance. Finally, families in MIHOPE lived in communities with greater socioeconomic disadvantages than the national average.

Local programs participating in MIHOPE tended to be in metropolitan areas, to have several years of operating experience, and to be relatively large. Close to 80 percent of local programs in MIHOPE served families in metropolitan counties. In comparison, in 2016 approximately 50 percent of the counties with MIECHV-funded local programs were metropolitan. About three-fourths of participating local programs had been operating for six years or more when they joined the study, reflecting both initial MIECHV state plans to expand existing local programs and MIHOPE's focus on local programs that had been in operation for at least two years. Additionally, the majority of local programs reported enrollment capacity of more than 100 families, and about 80 percent reported having at least five home visitors currently on staff. While MIHOPE aimed to represent the diversity of local programs funded by the MIECHV program, it was not a nationally representative sample of the MIECHV program since resource constraints led the study to focus on states with numerous MIECHV-funded local programs and on relatively large local programs.

Most home visitors had at least a bachelor's degree, which is more education than most of the models required. Half had more than three years of experience, while the other half were relatively inexperienced in providing home visiting services when they entered MIHOPE. Three-fourths of home visitors and nearly all supervisors had a bachelor's degree or higher and had studied relevant fields such as social work, child development, psychology, or nursing. Half of home visitors had at least three years of experience providing home visiting services at the time of the staff survey. One-fifth had been in their current position less than one year and had no experience in home visiting.

Most home visitors reported positive attitudes toward their jobs and organizations, though some reported psychosocial risks and some expressed intent to leave their current position within the next year. Home visitors and supervisors reported higher than average scores of job satisfaction and organizational commitment, which are indicators of employee morale, when compared with a national sample of mental health workers.⁶ About 15

⁶Charles Glisson, John Landsverk, Sonja Schoenwald, Kelly Kelleher, Kimberly Eaton Hoagwood, Stephen Mayberg, and Philip Green, "Assessing the Organizational Social Context (OSC) of Mental Health

(continued)

percent of home visitors and 12 percent of supervisors reported having symptoms of depression. This rate is higher than the 10 percent of the women in the U.S. population who experienced symptoms of depression between 2009 and 2012, but lower than rates reported in past home visiting studies.⁷ Between 12 percent and 18 percent of staff reported they did intend to leave their current position within the next year, which is higher than in other recent studies of home visitors' work attitudes.⁸

Implementation System

The implementation system is the link between the services that have been defined in a local program's service plan and the services actually provided to families enrolled in home visiting. The components of the implementation system examined in this report include training and supervision of home visitors, clinical and administrative supports provided to home visitors, and the community service environment available to local programs. Further, home visitors' perceptions of their roles and their effectiveness in carrying out those roles are described, as well as home visitors' ratings of their local program's implementation systems, their perceptions of the MIECHV program and its influence on their work, and the availability and quality of services in their communities.

Home visitors typically reported receiving more frequent training and less frequent supervision than specified by their evidence-based models. They reported infrequent use of both role play in training and supervisor observation of visits. These practices are considered important for building new skills and improving program effectiveness.⁹ Home

Services: Implications for Research and Practice," *Administration of Policy in Mental Health* 35, 1-2 (2008): 98-113.

⁷Laura A. Pratt and Debra J. Brody, *Depression in the U.S. Household Population, 2009-2012*, NCHS Data Brief No. 172 (Hyattsville, MD: National Center for Health Statistics, 2014); Daniel J. Whitaker, Tadesse Haileyesus, Monica Swahn, and Linda S. Saltzman, "Differences in Frequency of Violence and Reported Injury Between Relationships with Reciprocal and Nonreciprocal Intimate Partner Violence," *American Journal of Public Health* 97, 5 (2007): 941-947.

⁸Lori Burrell, Elizabeth McFarlane, Darius Tandon, Loretta Fuddy, Anne Duggan, and Philip Leaf, "Home Visitor Relationship Security: Association with Perceptions of Work, Satisfaction, and Turnover," *Journal of Human Behavior in the Social Environment* 19, 5 (2009): 592-610.

⁹Lisa A. Burke and Holly M. Hutchins, "Training Transfer: An Integrative Literature Review," *Human Resource Development Review* 6, 3 (2007): 263-296; Dean L. Fixsen, Sandra F. Naoom, Karen A. Blase, Robert M. Friedman, and Frances Wallace, *Implementation Research: A Synthesis of the Literature* (Tampa, FL: Louis de la Parte Florida Mental Health Institute, National Implementation Research Network, 2005); Joseph A. Durlak and Emily P. DuPre, "Implementation Matters: A Review of Research on the Influence of Implementation on Program Outcomes and the Factors Affecting Implementation," *American Journal of Community Psychology* 41, 3-4 (2008): 327-350; Katherine L. Casillas, Angèle Fauchier, Bridget T. Derkash, and Edward F. Garrido, "Implementation of Evidence-Based Home Visiting Programs Aimed at Reducing Child Maltreatment: A Meta-Analytic Review," *Child Abuse and Neglect* 53 (2016): 64-80.

visitors reported receiving an average of more than eight hours of training per month. However, the training did not typically include role play of skills.

Including weeks without reported supervision, home visitors' average time spent in individual supervision was 43 minutes per week. This is a shorter duration than what was intended by some of the models; model expectations for individual supervision ranged from 2 hours per month to 1 to 1.5 hours per week. However, when individual supervision sessions were held, they typically met model expectations for length. Supervisors reported that individual supervision sessions lasted slightly more than an hour, on average.

Home visitors in MIHOPE varied in how often they were observed in visits with families over a yearlong period and in how structured those observations were. Across all models, a third of home visitors were not observed at all, about one-fourth were observed once, about a third were observed two to four times, and one-tenth were observed more than four times in a year. About three-fourths of supervisors reported they used a structured tool when observing visits.

Direct observation of practice can be a vitally important supervision tool for assessing and reinforcing home visitors' skills in communicating with families — for example, how well home visitors identify and respond to family members' cues regarding concerns, interests, and understanding. The need for direct observation is evident in results of MIHOPE's video sub-study, which showed meaningful variation in how home visitors communicated with families. For example, home visitors varied widely in the extent to which they used conversational techniques to build partnerships with families.

Local programs provided home visitors with an array of administrative and clinical supports. Most local programs in MIHOPE reported having appropriate administrative supports in place, including management information systems, continuous quality improvement activities, and program monitoring. Clinical supports included curricula that focused heavily on topics directly related to parenting and child development. The 88 local programs in MIHOPE used a number of different parenting curricula, with an average of 3.4 different parenting curricula at each local program. The three most common parenting curricula used by local programs were the Parents as Teachers (PAT) Foundational Curriculum, Partners in Parenting Education (PIPE), and Partners for a Healthy Baby (PHB). Nearly half of all local programs either recommended or required the PAT Foundational Curriculum. All three of these widely used curricula provided structured guidance to home visitors for their work with parents on positive parenting and child development, but they (and other supplemental materials provided by the models) varied in the depth of their treatment of other topics, such as intimate partner violence, substance use, and mental health.

At least 80 percent of local programs reported that community service providers were available across all service types. However, less than two-thirds of local programs perceived those service providers to be accessible and effective in helping their families. As one part of the early childhood comprehensive system of care, home visiting is expected to improve outcomes not only through direct service delivery but also through referral to and coordination with other providers in the community. Ties could be further strengthened between the local programs and other service providers via formal agreements and designated contacts between organizations.

In general, home visitors felt both well supported and effective in working with families across a wide range of outcomes, giving themselves high ratings more consistently with respect to parenting and child development than maternal health and well-being. Home visitors typically reported that their program's implementation system supported them to improve most outcomes, but this finding varied by outcome-specific area. For instance, more than 75 percent of home visitors felt they had a supportive implementation system for promoting positive parenting and child development, but less than 60 percent felt well supported to address tobacco use, substance use, mental health, and intimate partner violence.

Service Delivery

All four of the evidence-based models specify planned services related to dosage, such as intended duration, visit frequency, and visit length. In addition to highlighting the dosage of services delivered to families, this section describes three additional aspects of home visiting services: continuity of the home visitor, home visit content, and family responsiveness.¹⁰

Families participated in a home visiting program for an average of eight months in the year following their first visit. All of the evidence-based models expected services to continue at least until the child's second birthday. About half of the families were still participating at the time of the child's first birthday, consistent with past literature on the implementation of home visiting.

Families received fewer visits than expected by their evidence-based model. In the first year of enrollment, close to 60 percent of families received at least 50 percent of the visits expected by their model. This is consistent with the dosage described in previous research on home visiting implementation.

Families' participation in home visiting during their first year followed three broad trajectories after receiving their first visit. Trajectories included early leavers whose

¹⁰The findings in this section are based on families with at least one home visit.

initial visits were followed soon after by a steep decline in participation and then no participation (28 percent of families), later leavers whose initial visits dropped to a plateau and then whose participation declined sharply to nonparticipation (17 percent of families), and long-term participators whose visit patterns settled into a relatively stable pattern over the period (55 percent of families). One year after their first home visit, long-term participators — who represented over half of families — were typically still receiving between 1.2 and 2.5 visits per month.

The minimum expected length of a visit ranged from 50 minutes for PAT to 90 minutes for EHS. The actual visit length was, on average, at least an hour for all models. This visit length met model expectations for all models except EHS, for which the average visit was slightly shorter than expected (82 minutes) but still lasted longer than in the other three models.

On average, families and home visitors discussed five outcome-specific topics in each visit, and families received referrals to an average of three different types of community services during the first year of services, demonstrating the breadth of these programs' objectives. Mental health, positive parenting behavior, child preventive care, child development, and economic self-sufficiency were the most common topics discussed across all visits. Close to 50 percent of families received at least one referral for public assistance or health insurance, Medicaid, or the Children's Health Insurance Program. Of families who entered the study prenatally, close to 50 percent received at least one referral to services for prenatal health and birth outcomes.

Most families received visits from only one home visitor, and home visitors generally rated families as responsive during home visits and between visits. Eighty percent of families that received at least one visit received all their visits from one home visitor in the year after their first visit. Home visitors rated families as responsive during home visits and between visits, where responsiveness refers to how families reacted to or engaged in program activities, such as following through with referrals or engaging in suggested parenting behaviors.

Characteristics Related to Differences in Service Receipt

Of the families who were found to be eligible for a local home visiting program and were assigned to MIHOPE's program group, 83 percent received at least one visit, and families who received visits tended to participate for about eight months out of the first year. To help the home visiting field increase engagement among lower attenders or to target services efficiently, it is useful to understand how specific characteristics of families, home visitors, and local programs are related to families' likelihood of receiving services, their number of visits, and the content of their visits. The analyses presented below do not indicate whether these characteristics directly caused the differences in service receipt that were observed, but the results could

suggest fruitful areas for further investigation as home visiting programs reflect on new directions for service delivery.

While the families in MIHOPE faced several socioeconomic and health risk factors at study entry, families with relatively more challenges and barriers participated in home visiting programs for shorter periods compared with average families in the study, while families with relatively fewer challenges participated longer. Families participated in home visiting for 8.2 months, on average. Families with relatively more challenges participated for 6.5 months, on average, and families with relatively fewer challenges participated for 9.1 months, on average.

First-time mothers and less-educated mothers were less likely to receive any home visits. Among mothers who were found to be eligible for a local home visiting program and who entered the study, first-time mothers were 5 percentage points less likely to receive a home visit. Mothers who had not completed high school were 4 percentage points less likely to receive a home visit than mothers who had at least some college. These differences are relatively large since, overall, 83 percent of families in the study received a home visit.

Local programs that implemented different evidence-based models differed in whether families received at least one visit and how long families stayed in the program. These differences were evident even after taking into account various characteristics of families, home visitors, and local programs. Families served by local programs implementing EHS were more likely to receive at least one visit, and families served by local programs implementing NFP or EHS stayed in the home visiting program for a longer time, on average.

Tailoring of services to families' needs was especially evident in areas of substance use, mental health, and intimate partner violence. Home visitors were more likely to discuss these topics with or provide referrals to families whom the study identified through surveys and assessments as likely to need services in these areas, compared with other families.

Certain practices of home visitors and local programs were associated with how often families and their home visitors discussed specific sensitive topics. Home visitors who attended training related to family planning and birth spacing, substance use, mental health, intimate partner violence, or child development discussed the topic more often with families than home visitors who did not attend training to address these outcomes. When a local program had formal processes in place for screening — as well as internal monitoring of these processes — for substance use or intimate partner violence, families and home visitors discussed the topic more often, compared with families served by local programs that did not have these processes in place to address these outcomes.

Home Visitor Perspectives on Services Provided to Families

To shed further light on what occurs in home visiting and to offer insights into why and how services provided may vary across families through the lenses of home visitors, the research team conducted qualitative interviews with 104 home visitors across 24 local programs participating in MIHOPE. The local programs operated in seven states and equally represented the four evidence-based models.

Most home visitors described their work as providing consistent and stable support to empower the mother in her role as the child's first teacher. Home visitors underscored that their local programs aim to honor the goals and preferences of the mother. The emphasis on the mother's preferences sometimes created tensions for the home visitor in balancing mothers' preferences with the goals of the local program, the evidence-based model, and the federal MIECHV program when they did not align with each other.

Given the emphasis on maternal preferences, some home visitors reported respecting the mother's position if she was not interested in changing a particular behavior. Home visitors most often mentioned doing so in the areas of reducing tobacco use or promoting breastfeeding. Even though home visitors believed these behaviors were important, they described feeling the need to balance the goal of helping a parent adopt new behaviors with supporting the family's engagement, which they thought would be compromised if they repeatedly brought up the issue. They expressed concerns that compromising engagement in this way, in turn, would undermine opportunities to improve and provide education in other areas such as child health and development.

Some home visitors described feeling especially challenged in addressing a mother's poor mental health, substance use, and intimate partner violence. Perhaps not surprisingly, areas associated with stigma were not easy to address, in part because home visitors indicated that they could not easily identify these sensitive issues. In spite of the use of screening tools, home visitors reported that some families were unlikely to be forthright about such issues until some trust had been established. Even when home visitors indicated that they could identify these issues, they felt that some families were unwilling or unable to understand their seriousness and potential consequences.

In the working relationships with families that home visitors saw as rewarding, they perceived mothers' eagerness to learn about and improve parenting practices as high and evident in how they continued with the visits and followed through between visits. For these families, home visitors felt they could achieve the intended level of service delivery and identify noticeable improvements in family behaviors or well-being.

Home visitors described their more challenging families as either being unmotivated to change or learn about positive parenting, having high levels of needs, or having psychosocial issues that sometimes stemmed from current and past trauma. In some of these cases, home visitors felt they were constantly engaged in crisis management and noted that planned visit content and duration of family participation were hard to achieve. This finding is consistent with those discussed above, indicating that families with more challenges and barriers tended to stay in home visiting for a shorter time than families with fewer challenges and barriers.

Conclusion

The MIHOPE implementation research analysis provides important information on local home visiting programs in the early years of the MIECHV program. The findings indicate that, as intended, local programs participating in the MIECHV program served socioeconomically disadvantaged families with a wide range of risks to healthy parenting and child development. Local programs were staffed by a relatively inexperienced workforce. These local programs relied somewhat more on in-service training and less on week-to-week supervision than intended by their evidence-based models.

Families that faced more risk factors appeared to be somewhat less likely to stay in home visiting for an extended period, compared with families that faced fewer risk factors. Home visitors more consistently reported feeling effective and strongly supported to promote positive parenting and child development than to address sensitive topics related to maternal health and well-being, such as substance use, mental health, and intimate partner violence. Although evidence-based models have historically emphasized positive parenting and child development outcomes, local programs reported increasingly focusing on sensitive areas, at least in part as a result of the MIECHV program.

The literature suggests the importance of observation-based feedback as part of training and supervision to introduce, build, and reinforce home visitors' skills in working with families. The results from the MIHOPE implementation research analysis show that local programs used this strategy relatively infrequently. The findings also show that home visitors more frequently broached sensitive topics such as substance use and intimate partner violence when they had received training on these topics or when their local programs had formal processes in place for screening families — as well as internal monitoring of these processes — on these topics.

What's Next

These descriptive findings about how services are currently supported and delivered can help to inform the home visiting field's evolution within the early childhood system of care. For instance, the finding that many families, particularly those facing more parenting risks, leave

home visiting shortly after enrolling could inform decisions about outreach, engagement, and services for families. Further, the finding that specific home visitor and local program practices, such as formal screening processes and internal monitoring of these screening processes, are associated with how home visitors deliver services to families suggests some promising possibilities regarding the kinds of operational practices that appear to support local programs in achieving their service delivery priorities.

One example of the home visiting field's continuing efforts to align families' goals, strengths, and risks with service strategies to improve family outcomes is HRSA's recent launch of the Innovation Toward Precision Home Visiting national research and development platform.¹¹ The intent of this platform is to define and test the planned services and implementation system components of home visiting models and to improve efficiency by identifying the subsets of components most effective for different groups of recipients. Using this platform, stakeholders will work together to design theory-based components, test them using innovative rapid-cycle methods, and take effective components to scale with the subsets of families who benefit most.

Further, the national offices of the evidence-based models continue to make programmatic changes, such as updates to their curricula and screening procedures to address outcomes related to parent-child interactions or maternal health and well-being. Some of these changes could be the result of MIECHV programmatic priorities or knowledge gained through the MIECHV program, while other updates were already underway before the MIECHV program began.

Future reports will provide additional information on the effectiveness of the local programs that participated in MIHOPE. The upcoming MIHOPE impact report will present findings on the effects of home visiting on outcomes in each of the areas that are emphasized in the legislation authorizing the MIECHV program. It will also address whether and how implementation features described in this report influence the impacts of home visiting on family outcomes, in order to further inform the field on actionable programmatic factors that can potentially be leveraged to improve the effectiveness of services in the future. A separate report will present estimates of costs for local evidence-based home visiting programs. Results of these reports, in combination with those of the current report, will inform efforts to strengthen home visiting.

¹¹For more information, see funding opportunity number HRSA-17-101 at <https://mchb.hrsa.gov/fundingopportunities> and www.hvresearch.org.

Earlier Publications on MIHOPE

Revised Design for the Mother and Infant Home Visiting Program Evaluation

2013. Charles Michalopoulos, Anne Duggan, Virginia Knox, Jill H. Filene, Helen Lee, Emily K. Snell, Sarah Crowne, Erika Lundquist, Phaedra S. Corso, Justin B. Ingels.

The Mother and Infant Home Visiting Program Evaluation: Early Findings on the Maternal, Infant, and Early Childhood Home Visiting Program — A Report to Congress.

2015. Charles Michalopoulos, Helen Lee, Anne Duggan, Erika Lundquist, Ada Tso, Sarah Crowne, Lori Burrell, Jennifer Somers, Jill H. Filene, and Virginia Knox.

Evidence on the Long-Term Effects of Home Visiting Programs: Laying the Groundwork for Long-Term Follow-Up in the Mother and Infant Home Visiting Program Evaluation (MIHOPE)

2017. Charles Michalopoulos, Kristen Faucetta, Anne Warren, and Robert Mitchell.

NOTE: A complete publications list is available from MDRC and on its website (www.mdrc.org), from which copies of reports can also be downloaded. Or see the MIHOPE project page for additional information (www.acf.hhs.gov/opre/research/project/maternal-infant-and-early-childhood-home-visiting-evaluation-mihope).