

Mother and Infant Home Visiting Program Evaluation (MIHOPE)

Overview for the Secretary's Advisory Committee

September 21, 2015

The Patient Protection and Affordable Care Act of 2010 authorized the creation of the Maternal, Infant, and Early Childhood Home Visiting program (MIECHV, also known as the Federal Home Visiting Program) and required a national evaluation of the program in its early years of operation. That evaluation is the Mother and Infant Home Visiting Program Evaluation (MIHOPE). MIHOPE was launched in 2011 by the Administration for Children and Families and the Health Resources and Services Administration within the U.S. Department of Health and Human Services. The study is being conducted by MDRC with James Bell Associates, Johns Hopkins University, Mathematica Policy Research, the University of Georgia, and Columbia University.

The Secretary's Advisory Committee is being convened to review the study's plans for analyzing data in four areas, each of which is described in a separate memo:

- An **impact analysis** will estimate the effects of home visiting programs in each of the domains specified in the authorizing legislation and for key subgroups of families. These domains include health, child development, parenting skills, school readiness and academic achievement, crime or domestic violence, and family economic self-sufficiency. A memo to the Advisory Committee describes which outcomes and subgroups are proposed as the focus of the impact analysis.
- An **implementation study** has three main goals: (1) to describe the services received by families in home visiting programs and how these vary across characteristics of families, national models, and local programs; (2) to describe the factors that are likely to influence service delivery, including the local service model, implementation system, community context, and characteristics of influential organizations, home visitors, and families; and (3) to investigate how local program features are related to the services that families receive. A memo to the Advisory Committee describes how data being collected by the study will be used to address these study goals.
- To examine **impact variation**, information from the implementation study and the impact analysis will be used to investigate which features of local programs are associated with larger effects for families, and how the services that families receive are related to the impacts of the programs on their outcomes. A memo to the Advisory Committee describes the analytical methods the team is considering using to explore three aspects of impact variation: (1) how much the effects on family outcomes vary across local programs and home visitors, (2) which aspects of program implementation appear to be associated with larger effects, and (3) how dosage and other aspects of services families receive are associated with program effects.
- A **cost analysis** will estimate the costs of providing home visiting services and examine how costs vary across national models and for different groups of families. By comparing impacts

to costs, the analysis will explore how the cost-effectiveness of home visiting services varies by program feature or family characteristics. Included in this analysis will be the effect of home visiting programs on health care costs. A memo to the Advisory Committee describes the methods that are being used to estimate costs and conduct the cost-effectiveness analysis.

First, though, this memo provides the overall background on the study's goals and design.

Background on MIHOPE

The authorizing legislation specified four main components of the national evaluation:

- Analysis of states' needs assessments. An analysis, on a state-by-state basis, of the results of assessments of state needs that are required by the legislation and state actions in response to the assessments. Plans for this analysis were presented to the Advisory Committee in 2013 and results were presented in the MIHOPE report to Congress released earlier this year.¹
- Effectiveness study. An assessment of the effects of early childhood home visiting programs on child and parent outcomes, with respect to each of the benchmark areas and participant outcomes specified in the legislation. Specifically, these outcome areas are: (1) prenatal, maternal, and newborn health; (2) child health and development; (3) parenting skills; (4) school readiness and academic achievement; (5) crime and domestic violence; (6) family economic self-sufficiency; and (7) referrals and service coordination. Table 1 lists the outcome domains and benchmark areas mentioned in the authorizing legislation.
- Subgroup analysis. An assessment of the effectiveness of home visiting programs on different populations, including the extent to which effects on participant outcomes vary across programs and populations.
- Study of effects on the health care system. An assessment of the potential for the activities conducted under such programs, if scaled broadly, to improve health care practices, eliminate health disparities, improve health care system quality, and reduce costs.

¹Michalopoulos, Charles, Helen Lee, Anne Duggan, Erika Lundquist, Ada Tso, Sarah Crowne, Lori Burrell, Jennifer Somers, Jill H. Filene, and Virginia Knox. 2015. *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.

Table 1
ACA Benchmark Areas and Outcome Domains

Benchmark area	Outcome domain
Improved maternal and newborn health	Improvements in prenatal, maternal, and newborn health, including improved pregnancy outcomes
Prevention of child injuries, child abuse, neglect, or maltreatment, and reduction of emergency department visits	Improvements in child health and development, including the prevention of child injuries and maltreatment and improvements in cognitive, language, social-emotional, and physical developmental indicators
Improvement in school readiness and achievement	Improvements in school readiness and child academic achievement
Reduction in crime or domestic violence	Reductions in crime or domestic violence
Improvements in family economic self-sufficiency	Improvements in family economic self-sufficiency
Improvements in the coordination and referrals for other community resources and support	Improvements in the coordination of referrals for, and the provision of, other community resources and supports for eligible families, consistent with State child welfare agency training Improvements in parenting skills

As discussed in prior Secretary’s Advisory Committee meetings, to meet legislative requirements and additional goals set forth by HHS, MIHOPE is doing the following:

- **Using a rigorous design for assessing the effectiveness of home visiting services overall, and variations in service delivery and effectiveness across programs and populations.** The evaluation is seeking to obtain credible evidence of the effects of home visiting services and to address questions about key subgroups of programs and families.
- **Studying the effectiveness of home visiting programs across all domains specified in the authorizing legislation.** Prior studies of home visiting have varied in the domains they analyzed and the outcomes examined within each domain. The national evaluation is improving what is known about home visiting by measuring outcomes consistently across all sites included in the evaluation.
- **Reflecting the national diversity of communities and populations.** Home visiting currently takes place in thousands of communities involving many thousands of families. The national evaluation seeks to reflect this diversity by sampling from a wide variety of sites that differ in geographic location and urbanicity.

- **Systematically studying program implementation.** Prior studies of home visiting programs have often included little information on the actual services provided to families and on the community, organizational, and family characteristics that influence service delivery. MIHOPE will provide information on each of these areas.
- **Linking information on communities, organizations, services, and families to program impacts in order to deepen the field's understanding of the program features that are associated with greater benefits.** This information can be used to strengthen future programs by expanding knowledge of the types of communities, organizations, families, and program features that lead to greater effectiveness.

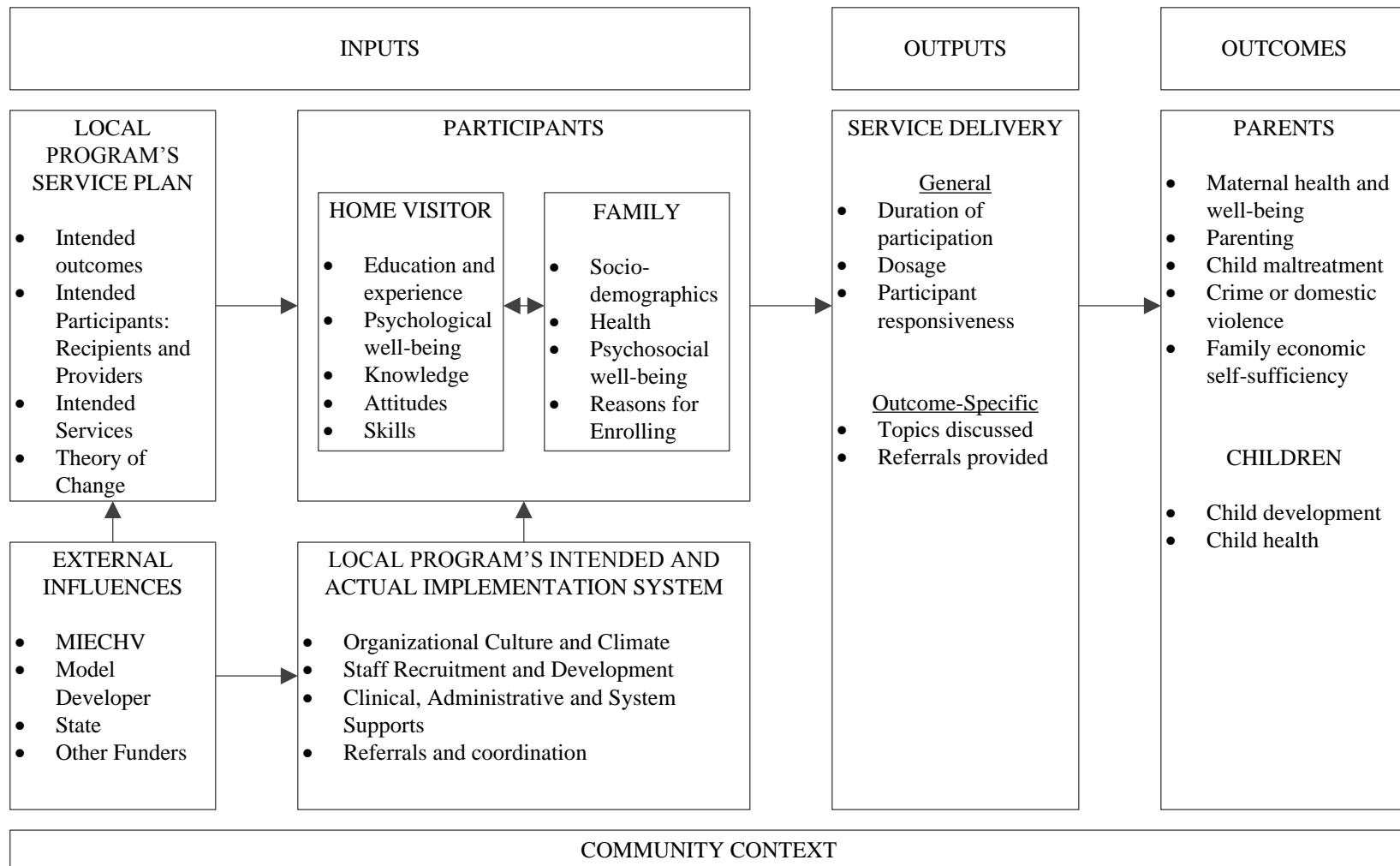
Conceptual framework

MIHOPE is based on a conceptual framework of how home visiting programs work and achieve their effects, as shown in Figure 1. This framework is organized into three broad aspects: (1) inputs – factors that influence service delivery, (2) outputs – actual service delivery, and (3) outcomes. The framework postulates that a number of considerations may influence how services are provided to families. For example, resource availability and needs are thought to be situated within community contexts, and multiple organizations are thought to influence how a local program defines its service plan and builds its implementation system.

Local implementing sites in the evaluation use one of four national evidence-based service models as the basis for their service plan. The resources used by a local site to implement this service plan are referred to collectively as its implementation system. A local site's service plan and implementation system, in turn, are thought to influence the skills and characteristics of staff who deliver home visiting services and the types of families that enroll. Characteristics of the community, service model, implementation system, home visitors, and families all have the potential to affect the actual services that families receive directly from the home visiting program and indirectly as a result of referrals to other services. According to the framework, the actual services received should ultimately influence outcomes of interest, including parenting behavior, parent and child health and well-being, and child development.

Figure 1

MIHOPE Conceptual Framework



The evaluation design

To provide unbiased estimates of the effects of home visiting programs, families who are recruited into the study are being randomly assigned either to a MIECHV-funded local home visiting program or to a control group who can use other services available in the community. Families will be enrolled into the study through the end of September 2015; the goal is to enroll up to 4,500 families. The study is including families in which the mother is at least 15 years old and either is pregnant or has a child no more than 6 months old.

The evaluation is focused on four evidence-based models of home visiting that were chosen by 10 or more states: Early Head Start—Home Based Program Option (EHS), Healthy Families America (HFA), Nurse-Family Partnership (NFP), and Parents as Teachers (PAT). All four of these evidence-based models work with pregnant mothers or mothers of infants. Two of the models — EHS and PAT — also enroll children 2 and older.

Data for the impact and implementation studies are being collected from a variety of sources to provide the most reliable evidence possible about home visiting services and their effects on families and children. Data sources include: surveys with parents covering the range of domains specified in the legislation; observations of the home environment; observed interactions of parents and children; direct assessments of children’s receptive language skills; observations of home visitors in their work with families during home visits; logs completed by home visitors and supervisors; observations of home visitors during home visits; surveys and interviews with home visitors, supervisors, and program administrators; program model documentation from program developers, grantees, and local sites; and administrative data on child maltreatment, health care use, maternal health, birth outcomes, and employment and earnings.

Accomplishments to date

- MIHOPE includes 88 local home visiting programs in 12 states: California, Georgia, Illinois, Iowa, Kansas, Michigan, Nevada, New Jersey, Pennsylvania, South Carolina, Washington, and Wisconsin. Of the 88 local programs, 19 are implementing the EHS model, 26 implementing HFA, 22 implementing NFP, and 21 implementing PAT.
- As of July 3, 2015, the study had enrolled 4,082 families across the 88 local programs, with families distributed uniformly between the home visiting program group and the control group. These include 1,429 families enrolled through HFA programs, 1,214 enrolled through NFP, 910 enrolled through PAT, and 529 enrolled through EHS.² Family enrollment into the study will end in September 2015.
- Follow-up data collection from families has been ongoing for nearly a year. Although the study is seeking to conduct surveys and in-home assessments with 85 percent of families who enroll, thus far completion rates have been only about 70 percent. The study is undertaking a number of activities, including an experiment with increased incentives

²EHS and PAT have lower numbers in part because those models enroll families with children over 6 months old. Therefore, a portion of program enrollees in all PAT and EHS MIHOPE sites was ineligible for the study, whereas virtually all families enrolled in HFA or NFP programs were eligible for the study.

recently approved by the federal Office of Management and Budget, to bolster response rates. Response rates are similar between program and control group members.

- Data sharing agreements have been negotiated with 36 states agencies – one each for Medicaid, birth records, and child welfare in each of the 12 states – and agreements have been signed with most of those agencies thus far.³
- MIHOPE is collecting baseline and 12-month staff surveys from the 88 programs participating in the study.⁴
 - Program Manager Surveys: The survey response rates are 93 percent for the baseline survey and 97 percent for the 12-month survey.
 - Home Visitor and Supervisor Surveys: These surveys required prior informed consent. Eighty-three percent of home visitors provided consent for the baseline survey and 75 percent of those providing consent completed the survey, yielding an overall completion rate of 62 percent. Eighty-seven percent of supervisors provided consent for the baseline survey and 84 percent of these completed the survey, yielding an overall completion rate of 73 percent. We anticipate similar completion rates for the 12-month surveys.
- MIHOPE is collecting videos of home visits. The first video is recorded about six weeks after the family enrolls in MIHOPE, and the second video is recorded when the focal child is about 6 months old. We are aiming to collect a total of 400 videos, with approximately 100 videos (70 first videos and 30 second videos) for each model. As of July 1, 2015, 246 initial videos and 124 second videos had been collected.
- Qualitative, semi-structured interviews have been completed with all twelve MIHOPE state MIECHV administrators, and with home visiting staff in 24 local programs (6 per model) spanning seven states. The data collection period for the qualitative interviews has ended. Interviews were conducted with 112 home visitors (individually (n=63) and in group interviews (n=49)), 24 supervisors, and 21 program managers.
- Home visitors and their supervisors have been maintaining weekly, web-based logs related to services delivered to families during home visits, and training and supervisory activities. As of July 2015, home visitors have completed more than 90 percent of logs about service delivery and about 85 percent of logs on training activities in which they participated. Supervisors have completed about 90 percent of logs on supervisory activities.

³See Lee, Warren, and Gill (2014) for a discussion of the process of acquiring Medicaid and vital records data. Lee, Helen, Anne Warren, and Lakhpreet Gill. 2015. Cheaper, Faster, Better: Are State Administrative Data the Answer? The Mother and Infant Home Visiting Program Evaluation-Strong Start Second Annual Report. OPRE Report 2015-09. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

⁴The study has finished conducting program manager and baseline home visitor and supervisor surveys. The period for completing the 12-month home visitor and supervisor surveys lasts until the end of 2015 for staff in the last local programs that entered the study.

- The MIHOPE Report to Congress was submitted to Congress in February 2015, 6 weeks before its due date. The Advisory Committee reviewed plans for that report in September 2013. A summary of the report is provided below. The executive summary and full report can be found at <http://www.acf.hhs.gov/programs/opre/resource/the-mother-and-infant-home-visiting-program-evaluation-early-findings-on-the-maternal-infant-and-early-childhood-home-visiting>.

Key Findings from the MIHOPE Report to Congress

Key findings from the MIHOPE Report to Congress include:

- **States used initial MIECHV funds primarily to expand the use of four evidence-based home visiting models in at-risk communities.** The national home visiting models most frequently chosen by states for MIECHV funding were Early Head Start - Home Based Program Option, Healthy Families America, Nurse-Family Partnership, and Parents as Teachers. As intended, states targeted counties with high rates of poverty, child maltreatment, and premature birth, among other indicators of risk.
- **As intended, MIECHV-funded programs serve a group of mothers with many needs.** When they entered the study, more than 30 percent of women had symptoms of depression, almost 20 percent had health problems that limited their activities, 92 percent were receiving some form of public assistance, more than three-quarters had no more than a high school diploma, and a tenth reported being the victim of intimate partner violence.
- **MIECHV-funded programs are designed to help parents support the healthy development of infants and toddlers and overcome the problems low-income families face.** MIECHV encouraged some local programs to broaden the outcomes they focused on, and home visitors reported that they were generally well trained and supported in working with families to address a wide range of outcomes. However, more home visitors perceived their training and tools to be more adequate for outcomes related to child development and parenting than for outcomes related to maternal health and well-being. Local programs also reported having the management information systems and infrastructure they needed to implement programs effectively.

In addition to providing an initial portrait of the programs and the families being served, the findings indicate that the local programs and participants vary in ways that should prove helpful in future analyses aimed at learning from variation, as described in the memos that follow.