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Evidence on Home Visiting and Suggestions for Implementing Evidence-Based Home Visiting Through MIECHV

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Subcommittee on Human Resources
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Chairman Reichert, Ranking Member Doggett, and members of the Subcommittee, thank you for the opportunity to testify before you today about the Federal Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program. My name is Rebecca Kilburn, and I am a Senior Economist at the RAND Corporation. My testimony will draw upon research performed at the RAND Corporation by me, Lynn Karoly, Jill Cannon, Teryn Mattox, Sarah Hunter, Matt Chinman, and others. This research agenda includes a 15-year program of conducting cost-benefit analysis of home visiting programs, reviewing home visiting evaluations as part of evidence-based program platforms in the U.S. and the European Union, developing an implementation manual for evidence-based home visiting, conducting an experiment for a program that meets the MIECHV "promising" standard, and undertaking evaluations for a Tribal MIECHV project and a state MIECHV Development Grant.

Evidence on the Effectiveness of Home Visiting

I am going to briefly summarize results, including cost-benefit analysis, from a body of RAND's home visiting research, as well as other relevant sources. RAND research synthesizing home visiting evaluations has identified a few lessons from this body of evidence.

1. Rigorous evaluations have demonstrated that a diverse set of home visiting models can improve outcomes for children and parents. Individual home visiting models are designed to address different outcomes issues like child maltreatment, parents' mental health, or children's physical disabilities (Mattox et al., 2013, Karoly et al., 2005). The MIECHV program has designated 14 home visiting models as evidence-based. As shown in Table 1, these models

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improve outcomes for children and parents in different domains ranging from child development to family violence (U.S. Department of Health and Human Services, undated). Reflecting the diversity in goals, these models serve families with children of different ages or beginning when the mother is pregnant. The differences in target populations are shown below in Table 2, which lists the age of the child at enrollment and the target population for the same 14 home visiting models. Given the differing goals and spectrum of types of families served, it is not surprising that the home visiting models have different features, such as employing different types of staff and delivering different curricula and services. When you go to a health care provider for allergies versus a compound fracture, you would not expect them to provide the same treatment for these two conditions, nor would you want providers with the same training to treat them. Home visiting is no different.

Furthermore, the available workforce and other local contextual factors may play a role in determining which home visiting model is appropriate for a particular area. A program that employs mental health clinicians as home visitors will not be feasible in an area lacking a pool of such clinicians, and a program lacking parent education materials in Mandarin may be impractical in areas with large ethnic Chinese populations.

Current MIECHV legislation allows states to determine their areas of greatest needs—such as infants with developmental disabilities or parents with substance abuse problems—and also to take into account local context and resources—such as the available workforce or family demographics. States can then deploy evidence-based home visiting models tailored to meet their needs and take advantage of available resources.

2. Rather than specifying the features that home visiting programs should have, it is preferable that programs follow fidelity to evidence-based models. We can't make generalizations about the program features that are associated with home visiting effectiveness. We find that some less intensive programs are effective as well as some very intensive programs. For example, the Healthy Steps model delivers between two and five home visits, while Home Instruction for Parents of Preschool Youngsters provides 30 visits a year for two or three years. We see that models that have been scaled up across the country have positive effects. An example of this is Nurse Family Partnership, which is being implemented in 44 states and has a strong national service office. We also find that a few less well known models that have only been implemented in one local area are effective. An example of one of these models is Child First, which has only been implemented in Connecticut (see U.S. Department of Health and Human Services, undated, for more information on these models). However, we do know that in order to replicate the results of evidence-based models, it is necessary to implement the model with

fidelity (Daro, 2010). Hence, rather than specifying features that all home visiting programs must include, the best outcomes for families can be achieved by instead requiring that evidence-based models be implemented with fidelity and that federal requirements do not lead states to sacrifice model fidelity.

Table 1: MIECHV Evidence-Based Home Visiting Models and Outcome Domains Shown to Be Improved

Home Visiting Model	Outcome Domain							
	Child development and school readiness	Child health	Family economic self-sufficiency	Linkages and referrals	Maternal health	Positive parenting practices	Child maltreatment	Juvenile delinquency, crime, family violence
Child FIRST	✓			✓	✓		✓	
Early Head Start—Home Visiting	✓	✓	✓		✓	✓	✓	
Early Intervention Program for Adolescent Mothers		✓	✓					
Early Start	✓	✓				✓	✓	
Family Check-Up	✓				✓	✓		
Healthy Families America (HFA)	✓	✓	✓	✓	✓	✓	✓	✓
Healthy Steps		✓				✓		
Home Instruction for Parents of Preschool Youngsters (HIPPY)	✓					✓		
Maternal Early Childhood Sustained Home Visiting Program (MESCH)		✓			✓	✓		
Nurse Family Partnership (NFP)	✓	✓	✓		✓	✓	✓	✓
Oklahoma's Community-Based Family Resource and Support (CBFRS) Program					✓	✓		
Parents as Teachers (PAT)	✓					✓		
Play and Learning Strategies (PALS) – Infant	✓					✓		
Project 12 Ways/SafeCare (Augmented)				✓			✓	

Sources: Updated version of Tip 3.1 in Mattox et al., 2013, and U.S. Department of Health and Human Services, undated.

**Table 2: MIECHV Evidence-Based Home Visiting Models and
Age of Child at Enrollment and Target Population**

Home visiting program	Age of child at enrollment	Target population
Child FIRST	Children birth to age 6	Families with children with emotional, behavioral, or develop-mental concerns; families at high risk for abuse and neglect
Early Head Start—Home Visiting	Pregnant women; children from birth through age 3	Families below federal poverty level; families eligible for Part C services under the Individuals with Disabilities Education Act
Early Intervention Program for Adolescent Mothers	Pregnant women	Adolescent mothers
Early Start	Pregnant women; children from birth through age 5	At-risk families
Family Check-Up	Children ages 2 to 7	Families with multiple risk factors
Healthy Families America (HFA)	Pregnant women; newborns	Target population determined by sites
Healthy Steps	Children birth through age 3	Any family
Home Instruction for Parents of Preschool Youngsters (HIPPY)	Children ages 3 to 5	Families whose parents lack confidence in their ability to instruct their children
Maternal Early Childhood Sustained Home Visiting Program (MESCH)	Children from birth through age 1	Disadvantaged expectant mothers at risk of adverse maternal and/or child health and development outcomes
Nurse Family Partnership (NFP)	Pregnant women; children from birth through age 2 months	First-time, low-income parents
Oklahoma's Community-Based Family Resource and Support (CBFRS) Program	Pregnant women	First-time mothers living in rural counties
Parents as Teachers (PAT)	Pregnant women; children from birth through age 5	Target population determined by sites
Play and Learning Strategies (PALS) - Infant	Children 5 months to 1 year and their families	Target population determined by sites
Project 12 Ways/SafeCare (Augmented)	Parents with children ages birth to 5	Families with a history of child maltreatment or risk factors for child maltreatment

Sources: Updated version of Tip 3.2 in Mattox et al., 2013, and U.S. Department of Health and Human Services, undated.

3. We don't yet know whether large-scale implementation of home visiting will improve population level well-being. Part of the rationale for home visiting is that since evidence indicates it can prevent negative outcomes later in children's lives, it represents an opportunity for society to shift from a treatment paradigm to a prevention paradigm. Evidence suggests that in addition to improving the child and family outcomes described above, home visiting has the potential to reduce taxpayer costs in the long run by reducing future spending such as emergency room visits, special education, or foster care. The hypothesis that emerges from this line of research is that scaling up home visiting across the country should yield improvements in population-level outcomes, and as a result we ought to be able to measure ensuing changes for entire communities in outcomes such as emergency room visits or child maltreatment. Despite the large growth in home visiting funding at the national and state levels, not enough families are currently served to be able to detect impacts in population level data. That is, while individual programs might be effective and improve outcomes of the families they serve, they typically serve such a small fraction of families in the community that the resulting family improvements would not move the needle on *community*-level indicators such as rates of low birth weight or reductions in post-partum depression. An exception is a recent study in Durham, North Carolina, that found that offering a brief home visiting intervention (3-7 contacts by the time the child was 12 weeks old) to all children born in the community reduced emergency medical care use by 50 percent in children's first year of life, and also improved parenting behaviors and connected families to more intensive services when needed (Dodge et al., 2013).

4. There is some evidence that society as a whole can yield returns from home visiting investments. There are fewer cost-benefit analyses than there are rigorous impact evaluations of home visiting models. This is because precise data on costs have not been collected for all the models, and because many home visiting benefits are difficult to monetize. We have well-established methods for valuing some of the outcomes that home visiting improves, like reductions in emergency room visits, but we do not have well-developed methods for valuing other outcomes that home visiting affects—such as improvements in positive parenting practices (Karoly, 2012). Due to these limitations, only 5 of the 14 models that MIECHV lists as evidence-based have been examined using cost-benefit analysis (Karoly et al., 2005, Washington State Institute for Public Policy, 2014).

For three of the five models, the estimated benefits exceed the costs, because the home visiting programs reduced future government spending in areas like emergency room visits and child protective services costs and increased tax revenues from parents' earnings. It is difficult to

compare the cost-benefit results across the five models due to differences in the length of follow-up in the studies and because their evaluations collected different outcomes.

In sum, while some cost-benefit analyses show that home visiting programs can generate a positive return, data limitations and the difficulty in valuing some home visiting outcomes limit our ability to draw conclusions about home visiting return on investment.

5. The jury is still out on the effectiveness of the MIECHV program per se. Today's hearing is not focusing on individual home visiting programs, but rather is centered on the Federal MIECHV effort that makes grants for such individual programs and the evidence we currently have about its overall effectiveness. No rigorous evidence currently exists regarding the effectiveness of the MIECHV home visiting effort per se. However, the Administration for Children and Families and the Health Resources and Services Administration have sponsored a well-designed study that will report to Congress next year and will shed light on the effects of MIECHV-funded programs. The study examines whether MIECHV-funded home visiting programs improved a wide range of outcomes, conducts cost-benefit analysis, and assesses whether particular program features or strategies are associated with better outcomes (for more information on this evaluation, see MDRC, undated).

How MIECHV Raises the Likelihood of Effectiveness

While we will not have the first findings from the national MIECHV evaluation until next year, at this point, we can point to some features of MIECHV that raise the likelihood that MIECHV will make the anticipated difference and produce the best results possible for at-risk families.

The MIECHV legislation requires that states use the majority of their MIECHV funding to support evidence-based home visiting models. By concentrating 75 percent of the MIECHV funding for direct services on models that have already been proven to improve outcomes for children and families, the chances are greater that MIECHV funds will have their intended impact (Mattox et al., 2013).

A potential drawback to funding exclusively evidence-based models is that it could stifle innovation and prevent us from uncovering existing models that may be effective but have not been adequately evaluated. The MIECHV program circumvents these potential drawbacks in two ways. One is that it allows the other 25 percent of the MIECHV funding for direct services to be used for "promising" models that are currently being evaluated using rigorous methods that meet the MIECHV evidence standards. The second is that the legislation includes a different funding

stream that facilitates the discovery of new evidence about home visiting implementation and outcomes. This is the MIECHV competitive development grants funding, which allows states to apply for funding to pilot test and evaluate innovations in home visiting.

However, the current MIECHV program does not include a path by which unevaluated home visiting models could undergo evaluation that may lead them to be designated evidence-based according to the MIECHV evidence criteria. For example, while MIECHV funds can be used to deliver "promising" home visiting models, there is no MIECHV funding to evaluate "promising" models. The types of randomized trial evaluations–i.e. those that randomly select certain families to receive and others to not receive services—that the MIECHV evidence standards require generally cost upwards of a million dollars, representing a substantial barrier to the discovery of the next evidence-based model. The MIECHV supports for innovation and discovery of new evidence could be strengthened by better facilitating the evaluation of promising and other potentially effective models.

Achieving improved outcomes is not guaranteed, however, with just the selection and provision of an evidence-based program, but rather the delivery of an effective model is only one of two requirements for realizing the hoped-for outcomes. It is not only necessary to deliver programs that work, but it is also necessary to *implement them well*, as represented by this formula proposed by Fixsen and colleagues (Fixsen et al., 2013):

$$\text{Evidence-based programs} \times \text{Effective implementation} = \text{Improved outcomes}$$

The MIECHV effort recognizes the importance of good implementation and complements its evidence-based program requirements with a number of implementation supports and requirements to further raise the likelihood that states realize the potential of home visiting. These include training and professional development in a variety of formats such as webinars, an interactive website portal, and in-person consulting and training. They have also contracted with a technical assistance team that provides guidance on data collection, outcomes measurement, and other evaluation-related activities. The MIECHV funding to states requires that the states engage in some best practices in evidence-based program implementation, such as conducting needs assessments, identifying goals, collecting and reporting outcome data, and engaging in continuous quality improvement (Mattox et al., 2013). RAND research has shown that mastering these best practices in evidence-based program implementation improves the ability of program staff to deliver high-quality programs and ultimately improves the overall quality of the programs (Chinman, et al., 2009; Chinman et al., 2013).

The MIECHV home visiting implementation support is particularly valuable for states that are implementing those home visiting models that may lack a well-developed national office that would otherwise provide this type of support. The majority of the 14 evidence-based home visiting programs are in this category. In addition to increasing the effectiveness of the federal MIECHV funds, increasing state home visiting capacity has spillovers that benefit states' other home visiting programs. At the same time that the Administration for Children and Families and the Health Resources and Services Administration have rolled out MIECHV, most states have also dramatically increased their funding for home visiting (National Conference of State Legislatures, 2013), and so many state home visiting systems have evolved in tandem with the Federal MIECHV effort. State and federally funded programs have been able to collaborate on developing home visiting data systems and professional development for a growing home visiting workforce, and realized other efficiencies in building home visiting infrastructure.

In order to further raise the likelihood that states' MIECHV-funded home visiting programs produce the best results possible, consideration should be given to whether ongoing funding to particular states should be tied more closely to the state's implementation performance (the same would apply to tribal and other grantees). This refers to organizational performance measures like number of families served, open positions filled, or training received, and this type of performance is different than the MIECHV benchmark measures, which are output measures focused on family outcomes. It is desirable that MIECHV continues to monitor output measures, which is a strength of the initiative. However, research demonstrates that monitoring organizational performance measures and linking them to incentives in performance-based accountability systems is also an effective component of improving public services (Stecher et al., 2010, Camm and Stecher, 2010). While MIECHV funds come with many specifications and requirements, it is not clear whether there have been consequences or additional support to generate improvement when states' organizational performance has not met expectations (e.g.—the project served fewer families than specified in the proposal and award), and this represents a potential area of opportunity for future MIECHV implementation.

Summary

To summarize, we can draw five lessons from existing rigorous research regarding evidence of home visiting effectiveness:

1) Rigorous evaluations have shown that a diverse set of home visiting models are effective, and these models vary in the outcomes they improve, the families they target, and the curricula and services they deliver.

2) The current evidence base does not identify a particular set of features that make home visiting effective. The evidence-based programs differ in intensity, scale of operation, and many other features.

3) Home visiting services generally have not served large enough numbers of eligible families to enable us to measure whether delivering home visiting on a large scale can improve population level outcomes, like low birth weight rates or child maltreatment rates.

4) There is limited evidence at this time that home visiting programs generate returns to society that more than offset their costs, and more definitive cost-benefit findings will require cost-benefit analysis for more models and developing methods for monetizing more of the benefits from home visiting.

5) A well-designed evaluation of the MIECHV program is underway and will provide information on *what* outcomes the program improves and *how* home visiting can be most effective. The first results of this evaluation will be reported to Congress in 2015.

Absent the type of evidence that the MIECHV evaluation will provide, lawmakers can preserve features of the MIECHV program that raise the likelihood that it achieves its intended impacts. One of these features is allowing states to select models that fit their needs and local contexts. MIECHV also encourages states to implement the chosen models with fidelity to the model rather than requiring that all models adapt particular features. Another attractive feature of MIECHV is continuing to prioritize evidence-based programs while at the same time allowing for the testing of innovations and discovery of new evidence-based models. An additional feature is to continue to support and develop effective implementation of evidence-based models among state grantees to further promote the promise of the MIECHV program. There are also some untapped opportunities to further strengthen the ability of the MIECHV program to capture the value of evidence-based home visiting models. This includes supporting an avenue by which "promising" and other potentially effective models could be evaluated according to the MIECHV evidence standards. Also, MIECHV could further promote quality implementation by tapping the benefits of performance-based accountability to more closely link continued funding to the measured organizational performance of states, and also to target technical assistance to states based on performance.

Mr. Chairman and Ranking Member, members of the Subcommittee, thank you for allowing me to appear before you today on this important subject. I look forward to taking your questions.

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