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# Home Visiting Evidence of Effectiveness Review: Executive Summary January 2016

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**Executive Summary** 

January 2016

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#### **EXECUTIVE SUMMARY**

Home Visiting Evidence of Effectiveness (HomVEE) was launched in fall 2009 to conduct a thorough and transparent review of the home visiting research literature. HomVEE provides an assessment of the evidence of effectiveness for home visiting program models that serve families with pregnant women and children from birth to kindergarten entry (that is, up through age 5). The HomVEE review is conducted by Mathematica Policy Research on behalf of the Department of Health and Human Services (DHHS).

The HomVEE review provides information about which home visiting program models have evidence of effectiveness as defined by DHHS, as well as detailed information about the samples of families who participated in the research, the outcomes measured in each study, and the implementation guidelines for each model.

This executive summary provides an overview of the HomVEE review process, a summary of the review results, and a link to the HomVEE website for more detailed information.

#### **Review process**

To conduct a thorough and transparent review of the home visiting research literature, each year HomVEE performs seven main activities:

- 1. Conducts a broad literature search.
- 2. Screens studies for relevance.
- 3. Prioritizes program models for the review.
- 4. Rates the quality of impact studies with eligible designs.
- 5. Assesses the evidence of effectiveness for each model.
- 6. Reviews implementation information for each model.
- 7. Addresses potential conflicts of interest.

For a complete understanding of possible program effects, the review must include all relevant research to date on program models. Thus reviews of new models and updates of existing models systematically include all of the aforementioned steps.

#### Literature search

Each year, the HomVEE team conducts a broad search for literature on home visiting program models serving pregnant women or families with children from birth to kindergarten entry (that is, up through age 5). The team limits the search to research on models that used

<sup>&</sup>lt;sup>1</sup> The Patient Protection and Affordable Care Act established a Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) that provides funds to states for home visiting programs for at-risk pregnant women and families with children from birth to kindergarten entry. For the purposes of the MIECHV, home visiting program models have been defined as programs or initiatives in which home visiting is a primary service delivery strategy and in which services are offered on a voluntary basis to pregnant women, expectant fathers, and parents

home visiting as the primary service delivery strategy and offered home visits to most or all participants. Program models that provide services primarily in centers with supplemental home visits are excluded. The search is also limited to research on home visiting models that aimed to improve outcomes in at least one of the following eight domains:<sup>2</sup>

- 1. Child health
- 2. Child development and school readiness
- 3. Family economic self-sufficiency
- 4. Linkages and referrals
- 5. Maternal health
- 6. Positive parenting practices
- 7. Reductions in child maltreatment
- 8. Reductions in juvenile delinquency, family violence, and crime

HomVEE's literature search includes two main activities:

- 1. **Database Searches.** The HomVEE team searches on relevant key words in a range of research databases. Key words include terms related to the service delivery approach, target population, and outcome domains of interest. The initial search is limited to studies published since 1989; a more focused search on prioritized program models includes studies published since 1979 (see Prioritizing home visiting program models for the review below). This search is updated annually to identify new literature released the previous year.
- 2. **Call for Studies.** Since 2009, HomVEE has issued annual calls for studies, sent to approximately 40 relevant listservs for dissemination.

In addition to these two activities, in the first year of the review, HomVEE also included the following:

- 3. Review of Existing Literature Reviews and Meta-Analyses. In the first year, the HomVEE team checked initial search results against the bibliographies of recent literature reviews and meta-analyses of home visiting models and added relevant missing citations to the search results. This check was conducted to ensure our search terms identified relevant studies; once the validity of the search terms was confirmed we did not repeat the process in subsequent years.
- 4. **Website Searches.** The HomVEE team used a custom Google search engine to search more than 50 relevant government, university, research, and nonprofit websites for unpublished

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and caregivers of children from birth to kindergarten entry, targeting participant outcomes that may include improved maternal and child health; prevention of child injuries, child abuse, or maltreatment, and reduction of emergency department visits; improvement in school readiness and achievement; reduction in crime or domestic violence; improvements in family economic self-sufficiency; improvements in the coordination and referrals for other community resources and supports; or improvements in parenting skills related to child development.

<sup>&</sup>lt;sup>2</sup> These domains were selected to align with MIECHV legislation.

reports and papers. Results of this search, however, largely overlapped with the results of the first two activities and this activity was dropped in subsequent years.

By the time of the 2015 review, the literature search yielded approximately 20,608 unduplicated citations, including 341 articles submitted through the HomVEE call for studies.

## **Screening studies**

Each year, the HomVEE review team screens all new citations identified through the literature search for relevance. The team screens out studies for the following reasons:

- Home visiting was not the primary service delivery strategy.
- The study did not use an eligible design (that is, not a randomized controlled trial, quasi-experimental design, or implementation study).
- The study did not report results for an eligible target population: pregnant women and families with children from birth to kindergarten entry (that is, up through age 5) served in a developed world context.
- The study did not examine any outcomes in the eight eligible outcome domains (child development and school readiness; child health; family economic self-sufficiency; linkages and referrals; maternal health; positive parenting practices; reductions in child maltreatment; and reductions in juvenile delinquency, family violence, and crime).
- The study did not examine a named home visiting program model.
- The study was not published in English.
- The study was published before 1989 for the initial search or 1979 for the focused search on prioritized program models.<sup>3</sup>

#### Prioritizing home visiting program models for the review

Each year, HomVEE releases new review results for program models. This includes reviews of studies on additional models and/or updates to previously reviewed models. Decisions on the number of models to review depend on available resources.

To prioritize home visiting models for inclusion in the review, the HomVEE team created a point system for ranking models. This point system was developed as a means of ranking models by the extent of rigorous research evidence available on their effectiveness. Points are assigned to models based on:

• The number and design of impact studies (three points for each randomized controlled trial, single-case design, or regression discontinuity design; and two points for each matched comparison group design)

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<sup>&</sup>lt;sup>3</sup> Research that was published or released through December of the preceding year is eligible for inclusion, as is unpublished material provided through the HomVEE call for studies that ended in early January.

- Sample sizes of impact studies (one point for each study with a sample size of 250 or more; before 2013, a sample size of 50 earned one point)
- Studies that examined an outcome of interest (starting in 2013, one point for each impact study that had an outcome in selected domains: child maltreatment; juvenile delinquency, family violence, or crime; linkages and referrals; and family economic factors. These domains are of particular interest because, to date, fewer studies reviewed for HomVEE have focused on them.)

During the prioritization process the HomVEE team also tries to determine whether the program appears to be currently operational and identify the availability of implementation information on the model. This information, which may be gleaned from websites, DHHS partners or other sources, helps inform the decision of which models to review in each cycle, especially when deciding among several models with a similar point value.<sup>4</sup>

As HomVEE proceeds, this prioritization effort may yield more models in the highest point category than can be reviewed within an annual review cycle. Beginning in 2014, if this occurs, the HomVEE team further prioritizes models by randomly ordering the models within the highest category and, working in that order, determines whether each model been in existence for at least three years. This effort may include contacting study authors or model developers to confirm publicly available information. The team will review information on as many eligible models (that have been in existence for at least three years) as can be completed within the annual cycle. Models lower on the randomly ordered list may not be considered in time for the close of that cycle. Those models will be returned to the pool for consideration in subsequent years, which will be re-randomized each year.

As of 2013, results for previously reviewed models will not be updated every year. Models are only considered for updates every two years at the earliest. For example, if the review results for a model were updated in 2013, that model will not be considered for additional updating until 2015. However, either a grantee receiving MIECHV funds or HRSA can request that a model be considered for updating ahead of schedule.

Through this process, as of September 2015, the team has prioritized 44 program models for the review (see Appendix for complete list).

HomVEE completed impact reviews of 310 studies and implementation reviews of 240 studies about the 44 models. In conducting the review on newly prioritized or updated models, the team focused only on research that was published or released through December of the preceding year or unpublished material provided through the HomVEE call for studies that

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<sup>&</sup>lt;sup>4</sup> For the initial review in 2009, the HomVEE team compared the list of prioritized models to information on the prevalence of implementation (Johnson, Kay. State-Based Programs: Strengthening Programs Through State Leadership. National Center for Children and Poverty, New York, 2009). The team conducted this step to check that the most prevalent models were included in the review even if the models did not have a sufficient number of causal studies to be prioritized for review.

<sup>&</sup>lt;sup>5</sup> The MIECHV legislation specifies that eligible models have been in existence for at least three years.

ended in early January. The review of research on prioritized models may be updated, but not all models are updated annually.

#### Rating the quality of impact studies

For each prioritized model, HomVEE reviews impact studies with two types of designs: randomized controlled trials (RCTs) and quasi-experimental designs (QEDs)<sup>6</sup> (including matched comparison group designs, single case designs, and regression discontinuity designs). Trained reviewers assess the research design and methodology of each study using a standard review protocol. Each study is assigned a rating of high, moderate, or low to provide an indication of the study design's capacity to provide unbiased estimates of program impacts.

In brief, the high rating is reserved for random assignment studies with low attrition of sample members and no reassignment of sample members after the original random assignment, and single case and regression discontinuity designs that meet What Works Clearinghouse (WWC) design standards (Table 1). The moderate rating applies to random assignment studies that, due to flaws in the study design, execution, or analysis (for example, high sample attrition), do not meet all the criteria for the high rating; matched comparison group designs that establish baseline equivalence on selected measures; and single case and regression discontinuity designs that meet WWC design standards with reservations. Impact studies that do not meet all of the criteria for either the high or moderate ratings are assigned the low rating.

# Assessing evidence of effectiveness

After completing all impact study reviews for a model, the HomVEE team evaluates the evidence across all studies of the program models that received a high or moderate rating and measured outcomes in at least one of the eligible outcome domains. To meet DHHS' criteria for an "evidence-based early childhood home visiting service delivery model," program models must meet at least one of the following criteria:

- At least one high- or moderate-quality impact study of the model finds favorable, statistically significant impacts in two or more of the eight outcome domains; or
- At least two high- or moderate-quality impact studies of the model using non-overlapping analytic study samples find one or more favorable, statistically significant impacts in the same domain.

In both cases, the impacts considered must either (1) be found for the full sample or (2) if found for subgroups but not for the full sample, be replicated in the same domain in two or more studies using non-overlapping analytic study samples. Additionally, if the model meets the above criteria based on findings from randomized controlled trial(s) only, then one or more favorable, statistically significant impacts must be sustained for at least one year after program enrollment,

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<sup>&</sup>lt;sup>6</sup> Johnson, Kay. State-Based Programs: Strengthening Programs Through State Leadership. National Center for Children and Poverty, New York, 2009.

<sup>&</sup>lt;sup>7</sup> The What Works Clearinghouse (WWC), established by the Institute for Education Sciences in the U.S. Department of Education, reviews education research.

Table 1. Summary of study rating criteria for the HomVEE review

| HomVEE<br>study rating | Randomized controlled trials  | Quasi-experimental<br>designs<br>Matched comparison group   | Quasi-experimental<br>designs<br>Single-case design <sup>b</sup>   | Quasi-experimental designs<br>Regression discontinuity<br>design <sup>b</sup>   |
|------------------------|---|---|--|---|
| High                   | <ul> <li>Random assignment</li> <li>Meets WWC standards for acceptable rates of overall and differential attrition<sup>a</sup></li> <li>No reassignment; analysis must be based on original assignment to study arms</li> <li>No confounding factors; must have at least two participants in each study arm and no systematic differences in data collection methods</li> <li>Controls for selected measures if groups are different at baseline</li> </ul> | Not applicable  | <ul> <li>Timing of intervention is systematically manipulated</li> <li>Outcomes meet WWC standards for interassessor agreement</li> <li>At least three attempts to demonstrate an effect</li> <li>At least five data points in relevant phases</li> </ul>  | <ul> <li>Integrity of forcing variable is maintained</li> <li>Meets WWC standards for low overall and differential attrition</li> <li>The relationship between the outcome and the forcing variable is continuous</li> <li>Meets WWC standards for functional form and bandwidth</li> </ul> |
| Moderate               | <ul> <li>Reassignment OR unacceptable rates of overall or differential attrition<sup>a</sup></li> <li>Baseline equivalence established on selected measures</li> <li>No confounding factors; must have at least two participants in each study arm and no systematic differences in data collection methods</li> </ul>  | <ul> <li>Baseline equivalence         established on selected         measures and controls for         baseline measures of         outcomes, if applicable</li> <li>No confounding factors;         must have at least two         participants in each study         arm and no systematic         differences in data         collection methods</li> </ul> | <ul> <li>Timing of intervention is systematically manipulated</li> <li>Outcomes meet WWC standards for interassessor agreement</li> <li>At least three attempts to demonstrate an effect</li> <li>At least three data points in relevant phases</li> </ul> | <ul> <li>Integrity of forcing variable is maintained</li> <li>Meets WWC standards for low attrition</li> <li>Meets WWC standards for functional form and bandwidth</li> </ul>   |

Note: "Or" implies that one of the criteria must be present to result in the specified rating.

<sup>&</sup>lt;sup>a</sup>The What Works Clearinghouse (WWC), established by the Institute for Education Sciences in the U.S. Department of Education, reviews education research (http://ies.ed.gov/ncee/wwc/). The WWC standard for attrition is transparent and statistically based, taking into account both overall attrition (the percentage of study participants lost in the total study sample) and differential attrition (the differences in attrition rates between treatment and control groups).

<sup>&</sup>lt;sup>b</sup>For ease of presentation, some of the criteria are described very broadly. Additional details about standards are available for single-case designs (<a href="http://ies.ed.gov/ncee/wwc/pdf/wwc\_scd.pdf">http://ies.ed.gov/ncee/wwc/pdf/wwc\_scd.pdf</a>) and regression discontinuity designs (<a href="http://ies.ed.gov/ncee/wwc/pdf/wwc\_rd.pdf">http://ies.ed.gov/ncee/wwc/pdf/wwc\_rd.pdf</a>).

and one or more favorable, statistically significant impacts must be reported in a peer-reviewed journal. <sup>8</sup>

For results from single-case designs to be considered toward the DHHS criteria, three additional requirements must be met:

- At least five studies examining the intervention meet the WWC's pilot single-case design standards without reservations or standards with reservations (equivalent to a "high" or "moderate" rating in HomVEE, respectively).
- The single-case designs are conducted by at least three research teams with no overlapping authorship at three institutions.
- The combined number of cases is at least 20.

In addition to assessing whether each model met the DHHS criteria for an evidence-based early childhood home visiting service delivery model, the HomVEE team examined and reported other aspects of the evidence for each model based on all high- and moderate-quality studies available, including the following:

- Quality of Outcome Measures. HomVEE classified outcome measures as primary if data were collected through direct observation, direct assessment, or administrative records; or if study authors indicated that self-reported data were collected using a standardized (normed) instrument. Other self-reported measures are classified as secondary.
- **Replication of Impacts.** HomVEE classified impacts as replicated if favorable, statistically significant impacts were shown in the same outcome domain in at least two non-overlapping analytic study samples.
- **Subgroup Findings.** HomVEE reported subgroup findings if the findings were replicated in the same outcome domain in at least two studies using different analytic samples.
- Unfavorable or Ambiguous Impacts. In addition to favorable impacts, HomVEE reported unfavorable or ambiguous, statistically significant impacts on full sample and subgroup findings. While some outcomes are clearly unfavorable (such as an increase in children's behavior problems), others are ambiguous. For example, an increase in the number of days mothers are hospitalized could indicate an increase in health problems or increased access to needed health care due to participation in a home visiting program.
- **Evaluator Independence.** HomVEE reported the funding source for each study and whether any of the study authors were program model developers.
- **Magnitude of Impacts.** HomVEE reported effect sizes when possible, either those calculated by the study authors or HomVEE computed findings.

#### **Implementation reviews**

The HomVEE team collected information about implementation of the prioritized models from all impact studies with a high or moderate rating and from stand-alone implementation

<sup>&</sup>lt;sup>8</sup> This criteria is consistent with the MIECHV legislation: Section 511 (d)(3)(A)(i)(I).

studies. In addition, staff conducted Internet searches to find implementation materials and guidance available from home visiting program developers and national program offices. The HomVEE team used this information to develop detailed implementation profiles for each prioritized model that included an overview of the program model and information about prerequisites for implementation, materials and forms, estimated costs, and program contact information. National program offices were invited to review and comment on the profiles before their release. The team also extracted information about implementation experiences from the studies reviewed, including the characteristics of program participants, location and setting, staffing and supervision, program model components, program model adaptations or enhancements, dosage, fidelity measurement, costs, and lessons learned.

## **Addressing conflicts of interest**

All members of the HomVEE team signed a conflict of interest statement in which they declared any financial or personal connections to developers, studies, or products being reviewed and confirmed their understanding of the process by which they must inform the project director if such conflicts arise. The HomVEE review team's project director assembled signed conflict of interest forms for all project staff and subcontractors and monitors for possible conflicts over time. If a team member is found to have a potential conflict of interest concerning a particular home visiting model being reviewed, that team member is excluded from the review process for the studies of that model. In addition, reviews for program models previously evaluated by Mathematica Policy Research were conducted by contracted reviewers who were not Mathematica employees.

# **Summary of review results**

The HomVEE review produced assessments of the evidence of effectiveness for each home visiting model and outcome domain, as well as a description of each model's implementation guidelines. This section provides a summary of evidence of effectiveness by model and outcome domain, a summary of implementation guidelines for program models with evidence of effectiveness, and a discussion of gaps in the home visiting research literature.

#### Evidence of effectiveness by program model

Overall, HomVEE identified 19 home visiting models that meet the DHHS criteria for an evidence-based early childhood home visiting service delivery model: (1) Child FIRST, (2) Durham Connects/Family Connects (3) Early Head Start-Home Visiting, (4) Early Intervention Program for Adolescent Mothers (EIP), (5) Early Start (New Zealand), (6) Family Check-Up, (7) Family Spirit, (8) Health Access Nurturing Development Services (HANDS), (9) Healthy Beginnings, (10) Healthy Families America (HFA), (11) Healthy Steps (National Evaluation 1996 Protocol), (12) Home Instruction for Parents of Preschool Youngsters (HIPPY), (13) Maternal Early Childhood Sustained Home Visiting Program, (14) Minding the Baby, (15) Nurse Family Partnership (NFP), (16) Oklahoma's Community-Based Family Resource and Support (CBFRS) Program, (17) Parents as Teachers (PAT), (18) Play and Learning Strategies

(PALS) Infant, 9 and (19) SafeCare® Augmented. 10 All of them have at least one high- or moderate-quality study with at least two favorable, statistically significant impacts in two different domains or two or more high- or moderate-quality studies using non-overlapping analytic study samples with one or more statistically significant, favorable impacts in the same domain.

Based on the available high- or moderate-quality studies, the review showed the following (Table 2):

- Models have multiple favorable effects. Most program models have numerous favorable
  impacts on primary and secondary measures. The number of outcomes showing favorable
  effects ranged considerably across models, as did the number of total outcomes measured
  (not shown).
- **Program models have sustained impacts.** All of the models that met the DHHS criteria have favorable impacts at least one year after program enrollment. For longer programs, families may still have been receiving services at the time the outcomes were measured.
- **Replication is uncommon.** Only 7 of the 19 models that met the DHHS criteria had favorable effects in the same domain in two or more samples. In other words, for most models that met DHHS criteria, favorable impacts were shown in only one sample or in two or more samples that each had favorable effects in different domains.
- **Results are not limited to subgroups.** All of the 19 models that met the DHHS criteria did so by showing results for a total study sample, rather than a subgroup based on particular characteristics. For most models, the study samples were racially, ethnically, and socioeconomically diverse.
- **Few unfavorable effects were reported.** Eight of the 19 models reported at least one unfavorable or ambiguous impact. It is not always clear whether an impact is unfavorable; for example, increased use of health care may reflect poorer health (an unfavorable effect), a better connection to the health care system (a favorable effect), or both, so the HomVEE review classifies these outcomes as unfavorable or ambiguous.

In addition to the 19 home visiting models described above, HomVEE reviewed 25 other home visiting program models (see Appendix for full list). Six models had a high or moderate quality study, but not two favorable, statistically significant impacts in two or more of the eight outcome domains.<sup>11</sup> Therefore, these program models did not meet the DHHS criteria for an evidence-based model. Two models had a high or moderate quality study with impacts in two or more of the eight outcome domains, but no favorable impact from a randomized controlled trial

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<sup>&</sup>lt;sup>9</sup> PALS Toddler and PALS Infant + Toddler did not meet the DHHS criteria for an evidence-based program model.

<sup>&</sup>lt;sup>10</sup> Project 12-Ways/SafeCare did not meet the DHHS criteria for an evidence-based program. Only the adaptation, SafeCare Augmented, met the DHHS criteria.

<sup>&</sup>lt;sup>11</sup> Those models were: Childhood Asthma Prevention Study; Computer Assisted Motivational Intervention; Home-Start; MOM Program; Parent-Child Home Program; and Resources, Education and Care in the Home.

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Table 2. Home visiting evidence dimensions for programs that meet DHHS criteria

|  | Results from studies with a high or moderate rating                 |  |                         |                          |   |   |                        |  |
|--|---|--|-------------------------|--------------------------|---|---|------------------------|--|
|  | Favorable<br>impacts on<br>primary outcome<br>measures <sup>a</sup> | Favorable<br>impacts on<br>secondary<br>outcome<br>measures <sup>a</sup> | Sustained? <sup>b</sup> | Replicated? <sup>c</sup> | Favorable<br>impacts limited to<br>subgroups? | Unfavorable or<br>ambiguous<br>impacts <sup>d</sup> | Review last<br>updated |  |
| Child FIRST  | Yes*  | Yes*   | Yes*                    | No                       | No*   | No  | July 2011              |  |
| Durham Connects/Family Connects  | Yes*  | Yes*   | Yes*                    | No                       | No*   | No  | Oct. 2014              |  |
| Early Head Start-Home Visiting   | Yes*  | Yes*   | Yes*                    | No                       | No*   | Yes**   | Aug. 2013              |  |
| EIP  | Yes*  | Yes*   | Yes*                    | No                       | No*   | Yes**   | July 2011              |  |
| Early Start (New Zealand)  | Yes*  | Yes*   | Yes*                    | No                       | No*   | No  | July 2014              |  |
| Family Check-Up  | Yes*  | Yes*   | Yes*                    | Yes*                     | No*   | No  | July 2011              |  |
| Family Spirit  | Yes*  | Yes*   | Yes*                    | Yes*                     | No*   | No  | June 2014              |  |
| HANDS  | Yes*  | No   | Yes*                    | Yes*                     | No*   | Yes**   | July 2015              |  |
| Healthy Beginnings   | Yes*  | Yes*   | Yes*                    | No                       | No*   | No  | June 2015              |  |
| Healthy Families America   | Yes*  | Yes*   | Yes*                    | Yes*                     | No*   | Yes**   | July 2013              |  |
| Healthy Steps (National Evaluation 1996 Protocol)  |   |  |                         |                          |   |   | July 2011              |  |
| These results focus on Healthy Steps as implemented in the 1996 evaluation. HHS has determined that home visiting is not the primary service delivery strategy and the model does not meet current requirements for MIECHV program implementation. | Yes*  | Yes*   | Yes*                    | No                       | No*   | No  |                        |  |
| HIPPY  | Yes*  | Yes*   | Yes*                    | Yes*                     | No*   | No  | May 2013               |  |
| Maternal Early Childhood Sustained Home Visiting Program   | Yes*  | Yes*   | Yes*                    | No                       | No*   | No  | May 2013               |  |
| Minding the Baby   | Yes*  | No   | Yes*                    | No                       | No*   | No  | Nov. 2014              |  |
| Nurse Family Partnership   | Yes*  | Yes*   | Yes*                    | Yes*                     | No*   | Yes**   | July 2013              |  |
| Oklahoma CBFRS   | Yes*  | Yes*   | Yes*                    | No                       | No*   | No  | Oct. 2012              |  |

Table 2 (continued)

|  |   | Results from studies with a high or moderate rating                      |                         |                          |   |   |                        |  |
|--|---|--|-------------------------|--------------------------|---|---|------------------------|--|
|  | Favorable<br>impacts on<br>primary outcome<br>measures <sup>a</sup> | Favorable<br>impacts on<br>secondary<br>outcome<br>measures <sup>a</sup> | Sustained? <sup>b</sup> | Replicated? <sup>c</sup> | Favorable<br>impacts limited to<br>subgroups? | Unfavorable or<br>ambiguous<br>impacts <sup>d</sup> | Review last<br>updated |  |
| Implementation support is not currently available for the model as reviewed. |   |  |                         |                          |   |   |                        |  |
| Parents as Teachers  | Yes*  | No   | Yes*                    | Yes*                     | No*   | Yes**   | July 2013              |  |
| PALS Infant  | Yes*  | No   | Yes*                    | No                       | No*   | Yes**   | Oct. 2012              |  |
| SafeCare Augmented   | Yes*  | Yes*   | Yes*                    | No                       | No*   | Yes**   | Aug. 2013              |  |

<sup>&</sup>lt;sup>a</sup>In the full sample only. Primary measures were defined as outcomes measured through direct observation, direct assessment, administrative data, or self-reported data collected using a standardized (normed) instrument. Secondary measures included other self-reported measures.

<sup>&</sup>lt;sup>b</sup>Yes, if favorable impacts were sustained for at least one year after the program began.

eves, if favorable impacts (whether sustained or not) were observed in the same outcome domain for at least two non-overlapping samples across high- or moderate-quality studies.

<sup>&</sup>lt;sup>d</sup>This number includes unfavorable or ambiguous impacts on both primary and secondary measures in the full sample. Unfavorable findings should be interpreted with caution because there is subjectivity involved in interpreting some outcomes; for some outcomes, it is not always clear in which direction it is desirable to move the outcome. Readers are encouraged to use the HomVEE website, specifically the reports by program model and by outcome domain, to obtain more detail about unfavorable findings.

<sup>\*</sup>Green-shaded table cell = favorable dimension of the study.

<sup>\*\*</sup>Red-shaded table cell = unfavorable or ambiguous impact.

was sustained for at least one year after program enrollment.<sup>12</sup> For the remaining 17 models, no high- or moderate-quality studies were identified and consequently HomVEE was unable to assess their effectiveness.<sup>13</sup>

# Evidence of effectiveness by outcome domain

At least one of the home visiting models had one or more favorable impacts in all eight domains (Table 3). Outcomes include primary measures—collected through direct observation, direct assessment, administrative records, or self-report using a standardized (normed) instrument—or secondary measures (all other self-reported). None of the models, however, showed impacts on a primary measure of reductions in juvenile delinquency, family violence, and crime. Most models had favorable impacts on primary measures of child development and school readiness and positive parenting practices. Healthy Families America has the greatest breadth of total findings, with favorable impacts on primary and/or secondary measures in all eight domains. Nurse Family Partnership had the greatest breadth of favorable primary findings, with favorable impacts on primary measures in six outcome domains.

# Summary of implementation for models with evidence of effectiveness

All of the 19 programs that met the DHHS criteria had been in existence for at least three years prior to the start of the review, 18 of them are associated with a national program office or institute of higher education that provides training and support to local program sites, 18 have minimum requirements for the frequency of home visits, and 16 have minimum education requirements for home visiting staff, and 18 have minimum requirements for home visitor supervision (Table 4). If In addition, 15 of the programs with evidence of effectiveness have all three of the following: pre-service training requirements, a system for monitoring fidelity, and specified content and activities for the home visits. Thirteen programs have fidelity standards to which local implementing agencies must adhere.

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<sup>&</sup>lt;sup>12</sup> Those models were Child Parent Enrichment Project and REST Routine.

<sup>&</sup>lt;sup>13</sup> We identified high or moderate rated studies on components and adaptations of Triple P-Positive Parenting Program, but not on the main model.

<sup>&</sup>lt;sup>14</sup> These dimensions are identified in the MIECHV legislation; see section 511(d)(3)(A)(i)(I), which includes requirements such as "the model has been in existence for at least 3 years…" and section 511 (d)(3)(B), which specifies requirements such as "well-trained and competent staff, as demonstrated by education and training…" The results are based on available information but do not constitute a formal review of whether the models meet the MIECHV eligibility requirements.

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Table 3. Favorable impacts on primary and secondary measures for home visiting models with evidence of effectiveness, by outcome domain

| effectiveness, by outc  | ome domai                | n                        |   |  |  |                                    |   |                           |
|---|--------------------------|--------------------------|---|--|--|------------------------------------|---|---------------------------|
|   | Child health             | Maternal health          | Child<br>development<br>and school<br>readiness | Reductions in<br>child<br>maltreatment | Reductions in<br>juvenile<br>delinquency,<br>family violence,<br>and crime | Positive<br>parenting<br>practices | Family<br>economic self-<br>sufficiency | Linkages and<br>referrals |
| Child FIRST   | Not measured             | Yes (primary, secondary) | Yes (primary)                                   | Yes (primary)                          | Not measured   | Not measured                       | Not measured                            | Yes (secondary)           |
| Durham Connects/Family Connects   | Yes (primary, secondary) | Yes (secondary)          | Not measured                                    | Not measured                           | Not measured   | Yes (secondary)                    | Not measured                            | Yes (secondary)           |
| Early Head Start– Home Visiting   | No                       | No                       | Yes (primary, secondary)                        | Yes (secondary)                        | Not measured   | Yes (primary, secondary)           | Yes (secondary)                         | Yes (secondary)           |
| EIP   | Yes (primary)            | No                       | Not measured                                    | Not measured                           | Not measured   | No                                 | Yes (secondary)                         | Not measured              |
| Early Start (New Zealand)   | Yes (primary, secondary) | No                       | Yes (primary, secondary)                        | Yes (primary, secondary)               | No   | Yes (primary)                      | No                                      | Not measured              |
| Family Check-Up   | Not measured             | Yes (secondary)          | Yes (primary)                                   | Not measured                           | Not measured   | Yes (primary)                      | Not measured                            | Not measured              |
| Family Spirit   | Not measured             | Yes (primary, secondary) | Yes (primary)                                   | Not measured                           | Not measured   | Yes (secondary)                    | Not measured                            | Not measured              |
| HANDS   | Yes (primary)            | Yes (primary)            | Not measured                                    | Yes (primary)                          | Not measured   | Not measured                       | Yes (primary)                           | Not measured              |
| Healthy Beginnings  | Yes (primary, secondary) | Yes (secondary)          | Yes (secondary)                                 | Not measured                           | Not measured   | Yes (secondary)                    | Not measured                            | Not measured              |
| Healthy Families America  | Yes (secondary)          | Yes (secondary)          | Yes (primary, secondary)                        | Yes (primary, secondary)               | Yes (secondary)  | Yes (primary, secondary)           | Yes (secondary)                         | Yes (primary, secondary)  |
| Healthy Steps (National Evaluation 1996 Protocol)   |                          |                          |   |  |  |                                    |   |                           |
| These results focus on Healthy<br>Steps as implemented in the 1996<br>evaluation. HHS has determined<br>that home visiting is not the<br>primary service delivery strategy<br>and the model does not meet<br>current requirements for MIECHV<br>program implementation. | Yes (primary)            | No                       | No  | No                                     | Not measured   | Yes (secondary)                    | Not measured                            | Not measured              |
|   | ,                        |                          | Yes (primary,                                   |  |  | Yes (primary,                      |   |                           |
| HIPPY   | Not measured             | Not measured             | secondary)                                      | Not measured                           | Not measured   | secondary)                         | Not measured                            | Not measured              |
| Maternal Early Childhood Sustained<br>Home Visiting Program   | Yes (secondary)          | Yes (secondary)          | Not measured                                    | Not measured                           | Not measured   | Yes (primary)                      | Not measured                            | Not measured              |

Table 3 (continued)

|   | Child health             | Maternal health          | Child<br>development<br>and school<br>readiness | Reductions in<br>child<br>maltreatment | Reductions in<br>juvenile<br>delinquency,<br>family violence,<br>and crime | Positive<br>parenting<br>practices | Family<br>economic self-<br>sufficiency | Linkages and<br>referrals |
|---|--------------------------|--------------------------|---|--|--|------------------------------------|---|---------------------------|
| Minding the Baby  | Yes (primary)            | Yes (primary)            | Not measured                                    | No                                     | Not measured   | No                                 | Not measured                            | Not measured              |
| Nurse Family Partnership  | Yes (primary, secondary) | Yes (primary, secondary) | Yes (primary, secondary)                        | Yes (primary)                          | Yes (secondary)  | Yes (primary, secondary)           | Yes (primary, secondary)                | No                        |
| Oklahoma CBFRS Implementation support is not currently available for the model as | No                       | Vos (secondari)          | Not manufact                                    | Not measured                           | Not measured   | Voc (primary)                      | Not manurad                             | Not measured              |
| reviewed.   |                          | Yes (secondary)          | Not measured                                    |  |  | Yes (primary)                      | Not measured                            |                           |
| Parents as Teachers   | No                       | No                       | Yes (primary)                                   | Yes (primary)                          | Not measured   | Yes (primary)                      | Yes (primary)                           | Not measured              |
| PALS Infant   | Not measured             | Not measured             | Yes (primary)                                   | Not measured                           | Not measured   | Yes (primary)                      | Not measured                            | Not measured              |
| SafeCare Augmented  | Not measured             | No                       | Not measured                                    | Yes (primary, secondary)               | No   | Not measured                       | No                                      | Yes (primary)             |

Note: Outcomes are categorized as primary if data were collected through direct observation, direct assessment, or administrative records; or if study authors indicated that self-reported data were collected using a standardized (normed) instrument. Other self-reported measures are classified as secondary.

Table 4. Overview of implementation for the home visiting models with evidence of effectiveness

|  | In<br>existence<br>for at least<br>3 years? <sup>a</sup> | Associated with national organization or institution of higher education? | Minimum<br>requirements<br>for frequency<br>of visits? | Minimum<br>education<br>requirements<br>for home<br>visiting staff? <sup>a</sup> | Supervision<br>requirements<br>for home<br>visitors? <sup>a</sup> | Pre-<br>service<br>training<br>for home<br>visitors? <sup>a</sup> | Fidelity<br>standards for<br>local<br>implementing<br>agencies <sup>a</sup> | System for<br>monitoring<br>fidelity?a | Specified content and activities for home visits? |
|--|--|---|--|--|---|---|---|--|---|
| Child FIRST  | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | Yes*  | Yes*                                   | Yes*  |
| Durham Connects/Family Connects  | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | Yes*  | Yes*                                   | Yes*  |
| Early Head Start-Home Visiting   | Yes*   | Yes*  | Yes*   | No   | Yes*  | Yes*  | Yes*  | Yes*                                   | No  |
| EIP  | Yes*   | Yes*  | Yes*   | Yes*   | No  | Yes*  | No  | No                                     | Yes*  |
| Early Start (New Zealand)  | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | Yes*  | Yes*                                   | Yes*  |
| Family Check-Up  | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | Yes*  | Yes*                                   | Yes*  |
| Family Spirit  | Yes*   | Yes*  | No   | Yes*   | Yes*  | Yes*  | Yes*  | Yes*                                   | Yes*  |
| HANDS  | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | Yes*  | Yes*                                   | Yes*  |
| Healthy Beginnings   | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | No  | Yes*                                   | Yes*  |
| Healthy Families America   | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | Yes*  | Yes*                                   | No  |
| Healthy Steps (National Evaluation 1996 Protocol)  These results focus on Healthy Steps as implemented in the 1996 evaluation. HHS has determined that home visiting is not the primary service delivery strategy and the model does not meet current requirements for |  |   |  |  |   |   |   |  |   |
| MIECHV program implementation.   | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | Yes*  | No                                     | Yes*  |
| HIPPY  | Yes*   | Yes*  | Yes*   | No   | Yes*  | Yes*  | Yes*  | Yes*                                   | Yes*  |
| Maternal Early Childhood Sustained<br>Home Visiting Program  | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | Yes*  | Yes*                                   | Yes*  |
| Minding the Baby   | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | No  | Yes*                                   | Yes*  |
| Nurse Family Partnership   | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | Yes*  | Yes*                                   | Yes*  |
| Oklahoma CBFRS  Implementation support is not currently available for the model as reviewed.   | Yes*   | No  | Yes*   | Yes*   | Yes*  | Yes*  | No  | Yes*                                   | Yes*  |
| Parents as Teachers  | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | Yes*  | Yes*                                   | Yes*  |
| PALS Infant  | Yes*   | Yes*  | Yes*   | Yes*   | Yes*  | Yes*  | No  | Yes*                                   | Yes*  |
| SafeCare <sup>b</sup>  | Yes*   | Yes*  | Yes*   | No   | Yes*  | Yes*  | Yes*  | Yes*                                   | Yes*  |

Table 4 (continued)

Source: HomVEE implementation profiles.

Notes: If the documents reviewed by HomVEE (see the implementation report reference lists) did not include information about the topic and the developer

provided no additional guidance then the answer is No. The results are based on available information but do not constitute a formal review of whether

the models meet the MIECHV eligibility requirements.

\*Shaded table cell = in compliance with implementation guidelines.

<sup>a</sup>Included in MIECHV legislation.

<sup>b</sup>This information pertains to SafeCare; separate information is not available for SafeCare Augmented.

## Gaps in the research

The HomVEE review identified several gaps in the existing research literature on home visiting models that limit its usefulness for matching program models to community needs. First, research evidence of program effectiveness is limited. As noted earlier, many models do not have high- or moderate-quality studies of their effectiveness; thus, policymakers and program administrators cannot determine whether those models are effective. Other models have only a few high- or moderate-quality studies, indicating that additional research on those models may be needed.

Second, more evidence is needed about the effectiveness of home visiting models for different types of families with a range of characteristics. Overall, the studies included in the HomVEE review had fairly diverse study samples in terms of race/ethnicity and socioeconomic status. However, sample sizes in these studies are not typically large enough to allow for analysis of findings separately by subgroup. Moreover, HomVEE found little or no research on the effectiveness of home visiting program models for immigrant families that have diverse cultural backgrounds or may not speak English as a first language, or military families.

#### For more Information

The HomVEE website (http://homvee.acf.hhs.gov/) provides detailed information about the review process and the review results, including the following:

- Reports on the evidence of effectiveness for each program model
- Reports on the evidence of effectiveness across models for each outcome domain
- Implementation profiles and information on implementation experiences for each program model
- A searchable reference list that provides the disposition of each study considered for all reviewed models
- Details about the review process and a glossary of terms

# APPENDIX

PROGRAM MODELS REVIEWED BY HOMVEE

| 1  | Attachment and Biobehavioral Catch-Up (ABC) Intervention     | 23 | Maternal Early Childhood Sustained Home Visiting Program               |
|----|--|----|--|
| 2  | Child FIRST  | 24 | Maternal Infant Heath Outreach Workers (MIHOW)                         |
| 3  | Child Parent Enrichment Project (CPEP)                       | 25 | Minding the Baby   |
| 4  | Childhood Asthma Prevention Study (CAPS)                     | 26 | MOM Program  |
| 5  | Computer-Assisted Motivational Intervention (CAMI)           | 27 | Mothers' Advocates in the Community (MOSAIC)                           |
| 6  | Durham Connects/Family Connects                              | 28 | North Carolina Baby Love Maternal Outreach Workers Program             |
| 7  | Early Head Start-Home Visiting (EHS-HV)                      | 29 | Nurse Family Partnership (NFP)   |
| 8  | Early Intervention Program for Adolescent Mothers (EIP)      | 30 | Nurses for New Newborns  |
| 9  | Early Start (New Zealand)                                    | 31 | Nurturing Parenting Programs (Birth to Age 5)                          |
| 10 | Even Start-Home Visiting (Birth to Age 5)                    | 32 | Oklahoma's Community-Based Family Resource and Support (CBFRS) Program |
| 11 | Family Check-Up  | 33 | Parent-Child Home Program  |
| 12 | Family Connections (Birth to Age 5)                          | 34 | Parents as Teachers (PAT)  |
| 13 | Family Spirit  | 35 | Philani Outreach Programme   |
| 14 | Health Access Nurturing Development Services (HANDS) Program | 36 | Play and Learning Strategies (PALS)                                    |
| 15 | Health Connect One's Community-Based Doula Program           | 37 | Pride in Parenting (PIP)   |
| 16 | Healthy Beginnings   | 38 | Promoting First Relationships  |
| 17 | Healthy Families America (HFA)                               | 39 | Resource Mothers Program   |
| 18 | Healthy Start-Home Visiting                                  | 40 | Resources, Education, and Care in the Home (REACH)                     |
| 19 | Healthy Steps (National Evaluation 1996<br>Protocol)         | 41 | REST Routine   |
| 20 | Home Instruction for Parents of Preschool Youngsters (HIPPY) | 42 | SafeCare   |
| 21 | HOMEBUILDERS (Birth to Age 5)                                | 43 | Seattle-King County Healthy Homes Project                              |
| 22 | Home-Start   | 44 | Triple P—Positive Parenting Program-Home Visiting                      |

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