



**OPRE Report #2019-93**

**Home Visiting Evidence  
of Effectiveness Review:  
Executive Summary  
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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 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 on behalf of the U.S. Department of Health and Human Services (HHS).

The HomVEE review provides information about which home visiting models have evidence of effectiveness as defined by HHS, as well as detailed information about the samples of families who participated in the research, the outcomes measured in each study, and implementation features of 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. As of 2019, HomVEE divides reviews into two tracks:

- Track 1 is for models that HomVEE has not previously found to be evidence based (that is, models that either have never been reviewed by HomVEE before or were reviewed but did not meet the criteria for evidence of effectiveness). HomVEE releases results in September of each year for models in Track 1.
- Track 2 updates the review of literature on models that HomVEE has previously found to be evidence-based. Updates to models in Track 2 are released by December.

Accordingly, this report includes new results for models in Track 1. The next update will include new review results for models in Track 2.

### 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 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 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 models serving pregnant women or families with children from birth to kindergarten entry (that is, up through age 5).<sup>1</sup> The team limits the search to research on models that used home visiting as the primary service delivery strategy and offered home visits to most or all participants. 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 was limited to studies published since 1989; a more focused search on prioritized models included studies published since 1979 (see "Prioritizing home visiting models for the review" below).

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<sup>1</sup> The Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) provides funds to states, territories, and tribal entities for home visiting programs for at-risk pregnant women and families with children from birth to kindergarten entry. For the purposes of HomVEE, home visiting models have been defined as models in which home visiting is the primary service delivery strategy and in which services are offered on a voluntary basis to pregnant women, expectant fathers, and parents and caregivers of children from birth to kindergarten entry, targeting participant outcomes that 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>2</sup> These domains were selected to align with the outcomes specified in the legislation authorizing MIECHV (Social Security Act, Section 511 [42 U.S.C. 711]).

Beginning with the 2019 review, HomVEE searches literature published through September of the previous year.<sup>3</sup>

- 2. Call for Studies.** Since 2009, HomVEE has issued annual calls for studies, sent to approximately 40 relevant electronic mailing lists for dissemination. The call for studies closes in January and may include unpublished studies or studies published through December of the previous year.

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

- 1. 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.
- 2. 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 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 2019 review, the literature search yielded approximately 31,019 unduplicated citations, including 446 articles submitted through the HomVEE calls 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).

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<sup>3</sup> Through 2018, this search was updated annually to identify literature released through December of the previous year.



- The study did not examine a named home visiting model.
- The study was not published in English.
- The study was published before 1989.<sup>4</sup>

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

Each year, HomVEE releases new review results for 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 help prioritize home visiting models for review, HomVEE reviews the title and abstract of each study that meets screening criteria, and assigns points to studies based on the following factors:<sup>5</sup>

- 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).
- 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: 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.)
- Factors of interest to the MIECHV program. Starting in 2018, HomVEE also adds points as follows:
  - 0.5 points if the study's sample is of a U.S. population or in an indigenous population.
  - 0.25 points if the study's sample is of any priority population named in MIEHCV statute.<sup>6</sup>

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<sup>4</sup> For models prioritized in 2018 and earlier, HomVEE also did a focused search reaching back to 1979. Because so few studies published before 1979 related to models prioritized in recent years, HomVEE limited the focused search to studies reaching back to 1989 or later starting with the 2019 review. For the 2019 review, HomVEE searched literature published through September 2018. It also considered submissions of unpublished studies or studies published through December 2018 to the call for studies that ended in early January 2019.

<sup>5</sup> As of 2018, for previously reviewed models that are not evidence-based, studies rated high or moderate receive the same number of points as new, un-reviewed studies; for evidence-based models, studies rated high or moderate do not receive any points. Studies HomVEE has already reviewed that earned a low rating do not receive any points.

<sup>6</sup> According to (42 U.S.C. § 711 (d)(4)), priority populations are as follows:

- Low-income families.
- Families who are pregnant women who have not attained age 21.
- Families that have a history of child abuse or neglect or have had interactions with child welfare services.
- Families that have a history of substance abuse or need substance abuse treatment.

After points are assigned, HomVEE groups the studies according to the home visiting model being tested and calculates a score for each model. Beginning in 2018, HomVEE applies up to 4 additional points for a series of model-level factors for specific MIECHV-relevant criteria, in order to more closely align HomVEE with the MIECHV Program. This information may be obtained from study abstracts, model websites, HHS partners, or other sources. The model-level factors and associated points are as follows:

- The model is associated with a national organization (which may be outside of the United States) or institution of higher education.
- The model is “active” —that is, currently serving or available to serve families.
- The model has been implemented for at least three years, even if it is not active.
- The model has implementation support available somewhere in the United States.

Beginning in 2019, HomVEE uses two review tracks: one for models that are not evidence-based (including unreviewed models as well as previously reviewed models that are not evidence-based) and another for evidence-based models.<sup>7</sup>

- **For models that HomVEE has not previously found to be evidence-based,** HomVEE sorts the list so that models with the highest total prioritization score (including both study- and model-level points) are first on the list and models with the lowest score are last, and works in that order to allocate review resources.
- **For models that HomVEE has previously found to be evidence-based,** HomVEE applies a weighting formula to the total prioritization score. This formula is applied so that evidence-based models that have not been reviewed recently have a higher likelihood of being prioritized for review than those that have been reviewed recently. Specifically, a model that is already evidence-based gets a weight of  $[1 + 0.1 * (\text{current year} - \text{prior report release date})]^2$ . For example, a model being considered in 2019 that had a report released in 2015 would get a weight of  $[1 + 0.1 * (2019 - 2015)]^2 = 1.96$ . HomVEE sorts the list so that evidence-based

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- Families that have users of tobacco products in the home.
  - Families that are or have children with low student achievement.
  - Families with children with developmental delays or disabilities.
  - Families who, or that include individuals who, are serving or formerly served in the Armed Forces, including such families that have members of the Armed Forces who have had multiple deployments outside of the U.S.

<sup>7</sup> Originally, HomVEE randomly ordered models in the highest points category and worked through the list in that random order. In 2018, HomVEE applied a weighting scheme to the total prioritization points for all models and reviewed models in order from highest to lowest weighted points.

models with the highest weighted score are first and those with the lowest weighted score are last, and works in that order to allocate review resources.<sup>8</sup>

If needed for prioritization, further information may be obtained by contacting study authors or model developers to confirm publicly available information.

The annual prioritization effort may yield more models in the highest point category than can be reviewed that year. Eligible models that are not reviewed will be returned to the pool for consideration in future years, following the same procedures stated above. The MIECHV program may coordinate with HomVEE to prioritize review of promising approaches<sup>9</sup> implemented and evaluated under a MIECHV grant.

As of 2018, if resources are constrained in a given year and an evidence-based model is prioritized for updating, HomVEE will not review studies based on research conducted in international settings (except research involving indigenous communities outside the United States). In this event, HomVEE will clearly list the research that was included and the research that was not included when updating the report about that model on the HomVEE website. HomVEE will still review international research about any prioritized models that have not previously been found to be evidence-based.

Through this process, as of June 2019, the team has prioritized 50 models for the review (see Appendix for complete list).

HomVEE completed impact reviews of 417 studies and implementation reviews of 294 studies about the 50 models. In conducting the review on newly prioritized or updated models, the team focused only on literature published through September 2018. The team also considered submissions to the call for studies of unpublished studies or studies published through December 2018.

### **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>10</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.

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<sup>8</sup> 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 review results for a model were updated in 2019, that model will not be considered for additional updating until 2021 or later.

<sup>9</sup> Social Security Act, Title V, § 511 (d)(3)(A)(II)

<sup>10</sup> Johnson, Kay. *State-Based Programs: Strengthening Programs Through State Leadership*. National Center for Children and Poverty, New York, 2009.



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) version 2.1 design standards (Table 1).<sup>11</sup> The moderate rating is also possible for 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 models that received a high or moderate rating and measured outcomes in at least one of the eligible outcome domains. To meet HHS' criteria for an "evidence-based early childhood home visiting service delivery model," 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.

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<sup>11</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 research design and criteria				
HomVEE study rating	Randomized controlled trials	Quasi-experimental designs Matched comparison group	Quasi-experimental designs Single-case design <sup>a</sup>	Quasi-experimental designs Regression discontinuity design <sup>a</sup>
High	<ul style="list-style-type: none"> <li>• Random assignment</li> <li>• Meets WWC standards for acceptable rates of overall and differential attrition<sup>b</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>• Baseline equivalence established on tested outcomes and demographic characteristics OR controls for these measures<sup>c</sup></li> </ul>	Not applicable	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Reassignment OR unacceptable rates of overall or differential attrition<sup>b</sup></li> <li>• Baseline equivalence established on tested outcomes and demographic characteristics AND controls for baseline measures of tested outcomes, if applicable<sup>c</sup></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 style="list-style-type: none"> <li>• Baseline equivalence established on tested outcomes and demographic characteristics AND controls for baseline measures of tested outcomes, if applicable<sup>c</sup></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 style="list-style-type: none"> <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 style="list-style-type: none"> <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>

Table 1 (continued)

HomVEE research design and criteria				
Low	Studies that do not meet the requirements for a high or moderate rating	Studies that do not meet the requirements for a high or moderate rating	Studies that do not meet the requirements for a high or moderate rating	Studies that do not meet the requirements for a high or moderate rating

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

<sup>a</sup>For ease of presentation, some of the criteria are described very broadly. Additional details are available for single-case design standards in Appendix F of the WWC version 2.1 standards ([http://ies.ed.gov/ncee/wwc/Docs/referenceresources/wwc\\_procedures\\_v2\\_1\\_standards\\_handbook.pdf](http://ies.ed.gov/ncee/wwc/Docs/referenceresources/wwc_procedures_v2_1_standards_handbook.pdf)) and in a specific document about regression discontinuity designs (<http://ies.ed.gov/ncee/wwc/Document/258>).

<sup>b</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>c</sup>The variables that must be used to establish equivalence depend on whether (1) it is possible to collect the measure at baseline vs. (2) it is difficult or impossible to collect the measure at baseline. See <http://homvee.acf.hhs.gov/Review-Process/4/Review-Process/19/5/#ReviewProcess-ProducingStudyRatings-StudyRatings> for more details.

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, and one or more favorable, statistically significant impacts must be reported in a peer-reviewed journal.<sup>12</sup>

For results from single-case designs to be considered toward the HHS 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 HHS 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 model developers.

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<sup>12</sup> These criteria are consistent with the MIECHV legislation: Section 511 (d)(3)(A)(i)(I).

- **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 studies. In addition, staff conducted Internet searches to find implementation materials and guidance available from home visiting model developers and national model offices. The HomVEE team used this information to develop detailed implementation profiles for each prioritized model that included an overview of the model and information about prerequisites for implementation, materials and forms, estimated costs, and model contact information. National model offices were invited to review and comment on the profiles before their release. For models that met HHS criteria for an evidence-based home visiting model, the team also extracted and reported information about implementation experiences from the studies reviewed, including the characteristics of program participants, location and setting, staffing and supervision, model components, 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 models previously evaluated by Mathematica 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 models with evidence of effectiveness, and a discussion of gaps in the home visiting research literature.

### **Evidence of effectiveness by model**

Overall, HomVEE identified 21 home visiting models that meet the HHS criteria for an evidence-based early childhood home visiting service delivery model: (1) Attachment and Biobehavioral Catch-up (ABC) Intervention; (2) Child First; (3) Early Head Start–Home-Based Option (EHS-HBO); (4) Early Intervention Program for Adolescent Mothers (EIP); (5) Early Start (New Zealand); (6) Family Check-Up;<sup>®</sup> (7) Family Connects; (8) Family Spirit;<sup>®</sup> (9) Health Access Nurturing Development Services (HANDS); (10) Healthy Beginnings; (11) Healthy



Families America (HFA);<sup>®</sup> (12) Healthy Steps (National Evaluation 1996 Protocol); (13) Home Instruction for Parents of Preschool Youngsters (HIPPI);<sup>®</sup> (14) Maternal Early Childhood Sustained Home Visiting Program; (15) Maternal Infant Health Program (MIHP); (16) Minding the Baby;<sup>®</sup> (17) Nurse Family Partnership (NFP);<sup>®</sup> (18) Oklahoma’s Community-Based Family Resource and Support (CBFRS) Program; (19) Parents as Teachers (PAT);<sup>®</sup> (20) Play and Learning Strategies (PALS) Infant;<sup>13</sup> and (21) the SafeCare<sup>®</sup> adaptation, SafeCare<sup>®</sup> Augmented.<sup>14</sup> 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 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).
- **Models have sustained impacts.** All but one of the models<sup>15</sup> that met the HHS criteria have favorable impacts at least one year after program enrollment. For models that provide services for more than one year, families may still have been receiving services at the time the outcomes were measured.
- **Replication is uncommon.** A total of 9 of the 21 models that met the HHS criteria had favorable effects in the same domain in two or more samples. In other words, for many models that met HHS criteria, favorable impacts were shown in only one sample.<sup>16</sup>
- **Results are not limited to subgroups.** All of the 21 models that met the HHS 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.** Ten of the 21 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

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<sup>13</sup> PALS Toddler and PALS Infant + Toddler did not meet the HHS criteria for an evidence-based model.

<sup>14</sup> Safecare did not meet HHS criteria for an evidence-based model. Only SafeCare Augmented (an adaptation of SafeCare) meets HHS criteria for an evidence-based model. In addition, Planned Activities Training (a SafeCare module) and Cellular Phone Enhanced Planned Activities Training (a SafeCare module with an add-on) showed evidence of effectiveness. See the model page (<https://homvee.acf.hhs.gov/Model/1/SafeCare-sup---sup-/18/1>) for more details on the module and module with an add-on.

<sup>15</sup> The requirement for sustained findings only applies to models for which all findings are from randomized controlled trials. The Maternal Infant Health Program (MIHP) does not have sustained impacts, but the research supporting that model is all from studies with a quasiexperimental design.

<sup>16</sup> If a model shows favorable impacts in only one sample, those impacts must be in two or more of the eight outcome domains for the model to meet HHS criteria for an evidence-based model,

better connection to the health care system (a favorable effect), or both, so the HomVEE review classifies these outcomes as unfavorable or ambiguous.

**Table 2. Home visiting evidence dimensions for models that meet HHS criteria**

Model	Results from studies with a high or moderate rating						Review last updated
	Favorable impacts on primary outcome measures <sup>a</sup>	Favorable impacts on secondary outcome measures <sup>a</sup>	Sustained? <sup>b</sup>	Replicated? <sup>c</sup>	Favorable impacts limited to subgroups?	Unfavorable or ambiguous impacts <sup>d</sup>	
Attachment and Biobehavioral Catch-up (ABC) Intervention	Yes*	No	Yes*	Yes*	No*	No	Apr. 2017
Child First	Yes*	Yes*	Yes*	No	No*	No	Jul. 2011
Early Head Start–Home-Based Option (EHS-HBO)	Yes*	Yes*	Yes*	No	No*	Yes**	Jul. 2016
<a href="#">Early Intervention Program for Adolescent Mothers</a>	Yes*	Yes*	Yes*	No	No*	Yes**	Jul. 2011
Early Start (New Zealand)	Yes*	Yes*	Yes*	No	No*	No	Jul. 2014
Family Check-Up® For Children	Yes*	Yes*	Yes*	Yes*	No*	Yes**	Jun. 2017
Family Connects	Yes*	Yes*	Yes*	No	No*	No	Oct. 2014
Family Spirit®	Yes*	Yes*	Yes*	Yes*	No*	No	May 2016
HANDS	Yes*	No	Yes*	Yes*	No*	Yes**	Jul. 2015
Healthy Beginnings	Yes*	Yes*	Yes*	No	No*	No	Jun. 2015
Healthy Families America (HFA)®	Yes*	Yes*	Yes*	Yes*	No*	Yes**	Sep. 2018
Healthy Steps (National Evaluation 1996 Protocol)	Yes*	Yes*	Yes*	No	No*	No	Jul. 2011
<p>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.</p>							
HIPPY®	Yes*	Yes*	Yes*	Yes*	No*	No	May 2013

Model	Results from studies with a high or moderate rating						Review last updated
	Favorable impacts on primary outcome measures <sup>a</sup>	Favorable impacts on secondary outcome measures <sup>a</sup>	Sustained? <sup>b</sup>	Replicated? <sup>c</sup>	Favorable impacts limited to subgroups?	Unfavorable or ambiguous impacts <sup>d</sup>	
Maternal Early Childhood Sustained Home Visiting Program (MECSH)	Yes*	Yes*	Yes*	No	No*	No	May 2013
Maternal Infant Health Program (MIHP)	Yes*	Yes*	No	Yes*	No*	Yes**	May 2019
Minding the Baby®	Yes*	No	Yes*	No	No*	No	Nov. 2014
Nurse-Family Partnership (NFP) ®	Yes*	Yes*	Yes*	Yes*	No*	Yes**	May 2016
Oklahoma CBFRS Implementation support is not currently available for the model as reviewed.	Yes*	Yes*	Yes*	No	No*	No	Oct. 2012
Parents as Teachers (PAT) ®	Yes*	No	Yes*	Yes*	No*	Yes**	Jul. 2013
PALS Infant	Yes*	No	Yes*	No	No*	Yes**	Oct. 2012
SafeCare Augmented <sup>e</sup>	Yes*	Yes*	Yes*	No*	No*	Yes**	Jul. 2018

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

<sup>c</sup>Yes, 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>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 model and by outcome domain, to obtain more detail about unfavorable findings.

<sup>e</sup>SafeCare did not meet HHS criteria for an evidence-based model. Only SafeCare Augmented (an adaptation of SafeCare) meets HHS criteria for an evidence-based model. In addition, Planned Activities Training (a SafeCare module) and Cellular Phone Enhanced Planned Activities Training (a SafeCare module with an add-on) showed evidence of effectiveness. See the model page (<https://homvee.acf.hhs.gov/Model/1/SafeCare-sup---sup-/18/1>) for more details on the module and module with an add-on.

\*Green-shaded table cell = favorable dimension of the study.

\*\*Red-shaded table cell = unfavorable or ambiguous impact.

In addition to the 21 home visiting models described above, HomVEE reviewed 29 other home visiting models that did not meet HHS criteria for an evidence-based model (see Appendix for full list). Nine of these models had a high or moderate quality study, but not two favorable, statistically significant impacts in two or more of the eight outcome domains for different study samples or in two domains for the same sample.<sup>17</sup> One model (Child Parent Enrichment Project) had a high or moderate quality study from a randomized controlled trial with favorable, statistically significant impacts in two of the eight outcome domains, but no favorable impact was sustained for at least one year after program enrollment. For the remaining 19 models, no high- or moderate-quality studies were identified, and consequently HomVEE was unable to assess effectiveness.<sup>18</sup>

### **Evidence of effectiveness by outcome domain**

One of the home visiting models, Healthy Families America, had one or more favorable impacts in each of the 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 favorable *total* findings, with favorable impacts on primary and/or secondary measures in all eight domains. Both Healthy Families America and 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 21 models that met the HHS criteria have minimum requirements for the frequency of home visits and have pre-service training requirements (Table 4).<sup>19</sup> Nineteen models are associated with a national model office or institute of higher education that provides training and support to local program sites and 18 have minimum requirements for home visitor supervision. Nineteen models each have a system for monitoring fidelity and have specified content and activities for the home visits. Eighteen models have minimum education requirements for home visiting staff. Sixteen models have fidelity standards for local implementing agencies.

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<sup>17</sup> Those models were: Childhood Asthma Prevention Study; Computer Assisted Motivational Intervention; Home-Start; MOM Program; ParentChild+® Core Model; Promoting Parental Skills and Enhancing Attachment in Early Childhood Trial; Resources, Education and Care in the Home; and Video-Feedback Intervention to Promote Positive Parenting-Sensitive Discipline.

<sup>18</sup> We identified high or moderate rated studies on a module and an adaptation of Triple P - Positive Parenting Program®—Variants suitable for home visiting, but not on the main model.

<sup>19</sup> The results are based on available information but do not constitute a formal review of whether the models meet the MIECHV eligibility requirements.



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

	Child health	Maternal health	Child development and school readiness	Reductions in child maltreatment	Reductions in juvenile delinquency, family violence, and crime	Positive parenting practices	Family economic self-sufficiency	Linkages and referrals
Attachment and Biobehavioral Catch-up (ABC) Intervention	Yes (primary)	Not measured	Yes (primary)	Not measured	Not measured	Yes (primary)	Not measured	Not measured
Child First	Not measured	Yes (primary, secondary)	Yes (primary)	Yes (primary)	Not measured	Not measured	Not measured	Yes (secondary)
Early Head Start–Home-Based Option (EHS-HBO)	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® For Children	Not measured	Yes (secondary)	Yes (primary, secondary)	Not measured	Not measured	Yes (primary)	Not measured	Not measured
Family Connects	Yes (primary, secondary)	Yes (secondary)	Not measured	Not measured	Not measured	Yes (secondary)	Not measured	Yes (secondary)
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 (HFA)®	Yes (primary, secondary)	Yes (secondary)	Yes (primary, secondary)	Yes (primary, secondary)	Yes (secondary)	Yes (primary, secondary)	Yes (primary, secondary)	Yes (primary, secondary)

Table 3 (continued)

	Child health	Maternal health	Child development and school readiness	Reductions in child maltreatment	Reductions in juvenile delinquency, family violence, and crime	Positive parenting practices	Family economic self-sufficiency	Linkages and referrals
Healthy Steps (National Evaluation 1996 Protocol) <i>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.</i>	Yes (primary)	No	No	No	Not measured	Yes (secondary)	Not measured	Not measured
HIPPY®	Not measured	Not measured	Yes (primary, secondary)	Not measured	Not measured	Yes (primary, secondary)	Not measured	Not measured
Maternal Early Childhood Sustained Home Visiting Program (MECSH)	Yes (secondary)	Yes (secondary)	Not measured	Not measured	Not measured	Yes (primary)	Not measured	Not measured
Maternal Infant Health Program (MIHP)	Yes (primary)	Yes (primary, secondary)	Not measured	Not measured	Not measured	Not measured	Not measured	Not measured
Minding the Baby®	Yes (primary)	Yes (primary)	Not measured	No	Not measured	No	Not measured	Not measured
Nurse-Family Partnership (NFP) ®	Yes (primary, secondary)	Yes (primary, secondary)	Yes (primary, secondary)	Yes (primary)	Yes (secondary)	Yes (primary, secondary)	Yes (primary, secondary)	No
Oklahoma CBFRS <i>Implementation support is not currently available for the model as reviewed.</i>	No	Yes (secondary)	Not measured	Not measured	Not measured	Yes (primary)	Not measured	Not measured
Parents as Teachers (PAT)®	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 <sup>a</sup>	Not measured	No	Not measured	Yes (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.

<sup>a</sup>SafeCare did not meet HHS criteria for an evidence-based model. Only SafeCare Augmented (an adaptation of SafeCare) meets HHS criteria for an evidence-based model. In addition, Planned Activities Training (a SafeCare module) and Cellular Phone Enhanced Planned Activities Training (a SafeCare module with an add-on) showed evidence of effectiveness. See the model page (<https://homvee.acf.hhs.gov/Model/1/SafeCare-sup---sup-/18/1>) for more details on the module and module with an add-on.

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

	Implementation support available for model as reviewed	Minimum requirements for frequency of visits?	Minimum education requirements for home visiting staff?	Supervision requirements for home visitors?	Pre-service training for home visitors?	Fidelity standards for local implementing agencies?	System for monitoring fidelity?	Specified content and activities for home visits?
Attachment and Biobehavioral Catch-up (ABC) Intervention	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Child First	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Early Head Start–Home-Based Option (EHS-HBO)	Yes*	Yes*	No	Yes*	Yes*	Yes*	Yes*	No
EIP	Yes*	Yes*	Yes*	No	Yes*	No	No	Yes*
Early Start (New Zealand)	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Family Check-Up® For Children	Yes*	Yes*	Yes*	No	Yes*	Yes*	Yes*	Yes*
Family Connects	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Family Spirit®	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
HANDS	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Healthy Beginnings	Yes*	Yes*	Yes*	Yes*	Yes*	No	Yes*	Yes*
Healthy Families America (HFA)®	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	No
Healthy Steps (National Evaluation 1996 Protocol)								
<i>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.</i>	No	Yes*	Yes*	Yes*	Yes*	Yes*	No	Yes*
HIPPY®	Yes*	Yes*	No	Yes*	Yes*	Yes*	Yes*	Yes*

	Implementation support available for model as reviewed	Minimum requirements for frequency of visits?	Minimum education requirements for home visiting staff?	Supervision requirements for home visitors?	Pre-service training for home visitors?	Fidelity standards for local implementing agencies?	System for monitoring fidelity?	Specified content and activities for home visits?
Maternal Early Childhood Sustained Home Visiting Program (MECSH)	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Maternal Infant Health Program (MIHP)	Yes*	Yes*	Yes*	No	Yes*	Yes*	Yes*	Yes*
Minding the Baby®	Yes*	Yes*	Yes*	Yes*	Yes*	No	Yes*	Yes*
Nurse-Family Partnership (NFP)®	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Oklahoma CBFRS <i>Implementation support is not currently available for the model as reviewed.</i>	No	Yes*	Yes*	Yes*	Yes*	No	Yes*	Yes*
Parents as Teachers (PAT)®	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
PALS Infant	Yes*	Yes*	Yes*	Yes*	Yes*	No	Yes*	Yes*
SafeCare®, <sup>a</sup>	Yes*	Yes*	No	Yes*	Yes*	Yes*	Yes*	Yes*

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. All models in this table have been in existence for at least 3 years. All models except Oklahoma CBFRS are associated with a national organization or institution of higher education.

<sup>a</sup>This information pertains to SafeCare; separate information is not available for SafeCare Augmented, nor for the Planned Activities Training or the Cellular Phone Enhanced Planned Activities Training modules of SafeCare.

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

## **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 models to community needs. First, research evidence of model 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 models for 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 model
- Reports on the evidence of effectiveness across models for each outcome domain
- Implementation profiles for each model
- Information on implementation experiences for evidence-based models
- 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



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## Appendix: Models Reviewed by HomVEE

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1	Attachment and Biobehavioral Catch-Up (ABC) Intervention	26	Maternal Infant Health Outreach Workers (MIHOW) <sup>®</sup>
2	Child First	27	Maternal Infant Health Program (MIHP)
3	Child Parent Enrichment Project (CPEP)	28	Minding the Baby <sup>®</sup>
4	Childhood Asthma Prevention Study (CAPS)	29	MOM Program
5	Computer-Assisted Motivational Intervention (CAMI)	30	Mothers' Advocates in the Community (MOSAIC)
6	Early Head Start–Home-Based Option (EHS-HBO)	31	North Carolina Baby Love Maternal Outreach Workers Program
7	Early Intervention Program for Adolescent Mothers (EIP)	32	Nurse-Family Partnership (NFP) <sup>®</sup>
8	Early Start (New Zealand)	33	Nurses for New Newborns <sup>®</sup>
9	Even Start-Home Visiting (Birth to Age 5)	34	Nurturing Parenting Programs (Birth to Age 5)
10	Early Steps to School Success <sup>™</sup> –Home Visiting	35	Oklahoma's Community-Based Family Resource and Support (CBFRS) Program
11	Family Check-Up <sup>®</sup> for Children	36	Parent-Child Assistance Program (PCAP)
12	Family Connections (Birth to Age 5)	37	ParentChild+ <sup>®</sup> Core Model (formerly Parent-Child Home Program)
13	Family Connects	38	Parents as Teachers (PAT) <sup>®</sup>
14	Family Spirit <sup>®</sup>	39	Philani Outreach Programme
15	Following Baby Back Home (FBBH)	40	Play and Learning Strategies (PALS)
16	Health Access Nurturing Development Services (HANDS) Program	41	Pride in Parenting (PIP)
17	Health Connect One's <sup>®</sup> Community-Based Doula Program	42	Promoting First Relationships <sup>®</sup> –Home Visiting Option
18	Healthy Beginnings	43	Promoting Parental Skills and Enhancing Attachment in Early Childhood (CAPEDP) Trial
19	Healthy Families America (HFA) <sup>®</sup>	44	Resource Mothers Program
20	Healthy Start–Home Visiting <sup>a</sup>	45	Resources, Education, and Care in the Home (REACH)
21	Healthy Steps (National Evaluation 1996 Protocol)	46	REST Routine
22	Home Instruction for Parents of Preschool Youngsters (HIPPY) <sup>®</sup>	47	SafeCare <sup>®</sup>
23	HOMEBUILDERS (Birth to Age 5) <sup>®</sup>	48	Seattle-King County Healthy Homes Project
24	Home-Start	49	Triple P - Positive Parenting Program <sup>®</sup> –Variants suitable for home visiting
25	Maternal Early Childhood Sustained Home Visiting Program (MECSH)	50	Video-Feedback Intervention to Promote Positive Parenting-Sensitive Discipline (VIPP-SD)

<sup>a</sup>HHS has determined that Healthy Start is not eligible for review by HomVEE because it is a federal grant program and not a home visiting model. Information on Healthy Start has been removed from the HomVEE website.

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