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# Home Visiting Evidence of Effectiveness Review: Executive Summary October 2018

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# Home Visiting Evidence of Effectiveness Review:

# Executive Summary

October 2018

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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 Policy Research 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.

## 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).[1] The team limits the search to research on models that used home visiting

[1] 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 the MIECHV, 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

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:[2]

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 models includes studies published since 1979 (see "Prioritizing home visiting 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.

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.

[2] 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].

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 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 2018 review, the literature search yielded approximately 28,927 unduplicated citations, including 395 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 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 models.[3]

### 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.

[3] Research that was published or released through December of the preceding year is eligible for inclusion in the 2018 review, as is unpublished material provided through the HomVEE call for studies that ended in early January.

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:[4]

- 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.[5]

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 factors are as follows:

[4] 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.

[5] 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.
- 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.

- The model is associated with a national organization (which may be outside of the U. S.) 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 U.S.

Beginning in 2017, HomVEE applies a weighting formula to the prioritization score. The weighting formula includes both study-level and model-level points.[6] It places more emphasis on identifying additional models that could rate as evidence-based while still ensuring evidence-based models identified in prior rounds of review are updated. Specifically:

- A model that is not evidence-based (regardless of whether previously reviewed) gets a weight of 2.
- A model that is already evidence-based gets a weight of $[1+0.1*(\text{current year - prior report release date})]^2$. For example, a model being considered in 2018 that had a report released in 2014 would get a weight of $[1 + 0.1*(2018 – 2014)]^2 = 1.96$.

HomVEE then sorts the list so that models with the highest weighted score are first on the list and models with the lowest weighted score are last, and works in that order to allocate review resources.[7] 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 as possible each year.[8]

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[9] implemented and evaluated under a MIECHV grant.

[6] Earlier, HomVEE randomly ordered models in the highest point category and worked through the list in that random order.

[7] 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 2016, that model would not be considered for additional updating until 2018 or later.

[8] Beginning with the 2019 review, HomVEE will use two review tracks: one for models that are not evidence-based (including unreviewed models as well as reviewed models that are not evidence-based) and another for evidence-based models. HomVEE will release results for models that are not evidence-based in September of each year. Updates to evidence-based models will be released later. HHS created these two tracks to facilitate review of a greater volume of models that are not evidence-based while still updating reviews of evidence-based models. For the 2019 review, HomVEE will search literature published through September 2018. It will also consider submissions to the call for studies of unpublished studies or studies published through December 2018.

[9] Social Security Act, Title V, § 511 (d)(3)(A)(II))

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 U.S.). 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 are not evidence based.

Through this process, as of June 2018, the team has prioritized 46 models for the review (see Appendix for complete list).

HomVEE completed impact reviews of 380 studies and implementation reviews of 277 studies about the 46 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 ended in early January.

### 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)[10] (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) version 2.1 design standards (Table 1).[11] 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

[10] Johnson, Kay. State-Based Programs: Strengthening Programs Through State Leadership. National Center for Children and Poverty, New York, 2009.

[11] The What Works Clearinghouse (WWC), established by the Institute for Education Sciences in the U.S. Department of Education, reviews education research.

"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.

## 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[b]** | **Quasi-experimental designs Regression discontinuity design[b]** |
| High | - Random assignment<br>- Meets WWC standards for acceptable rates of overall and differential attrition[a]<br>- No reassignment; analysis must be based on original assignment to study arms<br>- No confounding factors; must have at least two participants in each study arm and no systematic differences in data collection methods<br>- Baseline equivalence established on tested outcomes and demographic characteristics **OR** controls for these measures[c] | Not applicable | - Timing of intervention is systematically manipulated<br>- Outcomes meet WWC standards for interassessor agreement<br>- At least three attempts to demonstrate an effect<br>- At least five data points in relevant phases | - Integrity of forcing variable is maintained<br>- Meets WWC standards for low overall and differential attrition<br>- The relationship between the outcome and the forcing variable is continuous<br>- Meets WWC standards for functional form and bandwidth |
| Moderate | - Reassignment **OR** unacceptable rates of overall or differential attrition[a]<br>- Baseline equivalence established on tested outcomes and demographic characteristics AND controls for baseline measures of tested outcomes, if applicable[c]<br>- No confounding factors; must have at least two participants in each study arm and no systematic differences in data collection methods | - Baseline equivalence established on tested outcomes and demographic characteristics **AND** controls for baseline measures of tested outcomes, if applicable[c]<br>- No confounding factors; must have at least two participants in each study arm and no systematic differences in data collection methods | - Timing of intervention is systematically manipulated<br>- Outcomes meet WWC standards for interassessor agreement<br>- At least three attempts to demonstrate an effect<br>- At least three data points in relevant phases | - Integrity of forcing variable is maintained<br>- Meets WWC standards for low attrition<br>- Meets WWC standards for functional form and bandwidth |
| 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.

[a]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).

[b]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) and in a specific document about regression discontinuity designs (http://ies.ed.gov/ncee/wwc/Document/258).

[c]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. [12]

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.

[12] This criteria is consistent with the MIECHV legislation: Section 511 (d)(3)(A)(i)(I).

- **Evaluator Independence.** HomVEE reported the funding source for each study and whether any of the study authors were 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 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. The team also extracted 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 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 models with evidence of effectiveness, and a discussion of gaps in the home visiting research literature.

### Evidence of effectiveness by model

Overall, HomVEE identified 20 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;® (7) Family Connects; (8) Family Spirit;® (9) Health Access Nurturing Development Services (HANDS); (10) Healthy Beginnings; (11) Healthy

Families America (HFA);® (12) Healthy Steps (National Evaluation 1996 Protocol); (13) Home Instruction for Parents of Preschool Youngsters (HIPPY);® (14) Maternal Early Childhood Sustained Home Visiting Program; (15) Minding the Baby;® (16) Nurse Family Partnership (NFP);® (17) Oklahoma's Community-Based Family Resource and Support (CBFRS) Program; (18) Parents as Teachers (PAT);® (19) Play and Learning Strategies (PALS) Infant; [13] and (20) the SafeCare® adaptation, SafeCare® Augmented.[14] 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 of the models that met the HHS criteria have favorable impacts at least one year after program enrollment. For longer models, families may still have been receiving services at the time the outcomes were measured.

- **Replication is uncommon.** Only 8 of the 20 models that met the HHS criteria had favorable effects in the same domain in two or more samples. In other words, for most models that met HHS 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 20 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.** Nine of the 20 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.

[13] PALS Toddler and PALS Infant + Toddler did not meet the HHS criteria for an evidence-based model.

[14] 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 2. Home visiting evidence dimensions for models that meet HHS criteria

| Model | Results from studies with a high or moderate rating | | | | | | |
|---|---|---|---|---|---|---|---|
| | Favorable impacts on primary outcome measures[a] | Favorable impacts on secondary outcome measures[a] | Sustained?[b] | Replicated?[c] | Favorable impacts limited to subgroups? | Unfavorable or ambiguous impacts[d] | Review last updated |
| Attachment and Biobehavioral Catch-up (ABC) Intervention | Yes* | No | Yes* | Yes* | No* | No | April 2017 |
| Child First | Yes* | Yes* | Yes* | No | No* | No | July 2011 |
| Early Head Start–Home-Based Option (EHS-HBO) | Yes* | Yes* | Yes* | No | No* | Yes** | July 2016 |
| Early Intervention Program for Adolescent Mothers | 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* | Yes** | June 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** | July 2015 |
| Healthy Beginnings | Yes* | Yes* | Yes* | No | No* | No | June 2015 |
| Healthy Families America | Yes* | Yes* | Yes* | Yes* | No* | Yes** | September 2018 |
| 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* | No | No* | No | July 2011 |
| 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 |

Table 2 (*continued*)

| Model | Results from studies with a high or moderate rating | | | | | | |
|---|---|---|---|---|---|---|---|
| | Favorable impacts on primary outcome measures[a] | Favorable impacts on secondary outcome measures[a] | Sustained?[b] | Replicated?[c] | Favorable impacts limited to subgroups? | Unfavorable or ambiguous impacts[d] | Review last updated |
| Nurse Family Partnership | Yes* | Yes* | Yes* | Yes* | No* | Yes** | May 2016 |
| Oklahoma CBFRS<br>*Implementation support is not currently available for the model as reviewed.* | Yes* | Yes* | Yes* | No | No* | No | Oct. 2012 |
| Parents as Teachers | Yes* | No | Yes* | Yes* | No* | Yes** | July 2013 |
| PALS Infant | Yes* | No | Yes* | No | No* | Yes** | Oct. 2012 |
| SafeCare Augmented[e] | Yes* | Yes* | Yes* | No* | No* | Yes** | July 2018 |

[a]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.

[b]Yes, if favorable impacts were sustained for at least one year after the program began.

[c]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.

[d]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.

[e] 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 20 home visiting models described above, HomVEE reviewed 26 other home visiting 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 for different study samples or in two domains for the same sample.[15] Therefore, these models did not meet the HHS 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 was sustained for at least one year after program enrollment.[16] For the remaining 18 models, no high- or moderate-quality studies were identified and consequently HomVEE was unable to assess their effectiveness.[17]

**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 20 models that met the HHS criteria have minimum requirements for the frequency of home visits and have pre-service training requirements (Table 4).[18] 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. Eighteen models each have a system for monitoring fidelity and have specified content and activities for the home visits. Seventeen models have minimum education requirements for home visiting staff. Fifteen models have fidelity standards for local implementing agencies.

[15] 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.

[16] Those models were Child Parent Enrichment Project and REST Routine.

[17] We identified high or moderate rated studies on components and adaptations of Triple P-Positive Parenting Program, but not on the main model.

[18] 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 | 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 | Yes (primary, secondary) | Yes (secondary) | Yes (primary, secondary) | Yes (primary, secondary) | Yes (secondary) | Yes (primary, secondary) | Yes (primary, secondary) | Yes (primary, secondary) |
| 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 (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 |

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 |
|---|---|---|---|---|---|---|---|---|
| Maternal Early Childhood Sustained Home Visiting Program | Yes (secondary) | Yes (secondary) | Not measured | Not measured | Not measured | Yes (primary) | Not measured | Not measured |
| 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 reviewed.* | No | Yes (secondary) | Not measured | Not measured | Not measured | Yes (primary) | Not measured | 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[a] | 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.

[a] 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 | 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 | Yes* | Yes* | Yes* | Yes* | Yes* | Yes* | Yes* | No |
| Healthy Steps (National Evaluation 1996 Protocol)<br>*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.* | No | Yes* | Yes* | Yes* | Yes* | Yes* | No | Yes* |
| HIPPY | Yes* | Yes* | No | Yes* | Yes* | Yes* | Yes* | Yes* |
| Maternal Early Childhood Sustained Home Visiting Program | Yes* | Yes* | Yes* | Yes* | Yes* | Yes* | Yes* | Yes* |
| Minding the Baby | Yes* | Yes* | Yes* | Yes* | Yes* | No | Yes* | Yes* |
| Nurse Family Partnership | Yes* | Yes* | Yes* | Yes* | Yes* | Yes* | Yes* | Yes* |
| Oklahoma CBFRS<br>*Implementation support is not currently available for the model as reviewed.* | No | Yes* | Yes* | Yes* | Yes* | No | Yes* | Yes* |
| Parents as Teachers | Yes* | Yes* | Yes* | Yes* | Yes* | Yes* | Yes* | Yes* |
| PALS Infant | Yes* | Yes* | Yes* | Yes* | Yes* | No | Yes* | Yes* |

Table 4 (*continued*)

| | 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? |
|---|---|---|---|---|---|---|---|---|
| SafeCare[a] | 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.

*Shaded table cell = in compliance with implementation guidelines.

[a]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.

## 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 and information on implementation experiences for each 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

# MODELS REVIEWED BY HOMVEE

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

[a] 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.