Early Childhood Home Visiting Models

Reviewing Evidence of Effectiveness

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OPRE Report #2021-185

The Home Visiting Evidence of Effectiveness (HomVEE) review determines which home visiting models have enough evidence to meet the U.S Department of Health and Human Services (HHS) criteria for an "evidence-based early childhood home visiting service delivery model." This brief gives an overview of HomVEE and summarizes key findings from the review as of November 2021.

The HomVEE review only includes models that use home visiting as their primary way to deliver services and that work to improve outcomes in at least one of eight domains. These domains are (1) maternal health; (2) child health; (3) positive parenting practices; (4) child development and school readiness; (5) reductions in child maltreatment; (6) family economic self-sufficiency; (7) linkages and referrals to community resources and supports; and (8) reductions in juvenile delinquency, family violence, and crime.[2]

The HomVEE website:
https://homvee.acf.hhs.gov/

Weighing the Evidence

The HomVEE team uses a systematic process to ensure a thorough and transparent review of the research. This process is conducted annually. First, the team does a broad search for literature on home visiting models serving pregnant women or families with children whose ages range from birth to kindergarten entry (through age 5).[3] The team then screens the research for relevance to the review and calculates a prioritization score for each home visiting model. The score is based on factors such as the number of manuscripts about the model, the design of the study reported in the manuscript, the outcomes the researchers examine, the composition of the study sample, and if the model is already evidence based.

Next, HomVEE selects models to review by prioritizing the ones with the highest scores in each of two tracks.[4] Track 1 is for models that HomVEE either has never reviewed before or that it has reviewed, but the model did not meet the HHS criteria. Track 2 updates the review of literature on models that meet HHS criteria. HomVEE's two-track prioritization process reflects HomVEE's emphasis on identifying new early childhood home visiting models that meet HHS criteria while continuing to update reports on models that already meet HHS criteria.

The mission of the Home Visiting Evidence of Effectiveness (HomVEE) review is to conduct a thorough and transparent review of early childhood home visiting models. HomVEE provides an assessment of the evidence of effectiveness for early childhood home visiting models that serve families with pregnant women and children from birth to kindergarten entry (that is, up through age five).

HomVEE assesses the quality of the research evidence; not all evidence is based on equally well-designed research. Systematic reviews, such as HomVEE, methodically select a pool of research to review, identify well-designed research within that pool, and then extract and summarize the findings from that research. HomVEE's work helps policymakers and program administrators understand which models are effective. It is important to note that HomVEE does not directly evaluate home visiting models. Instead, it reviews and reports on the findings of existing research that does evaluate them. The HomVEE review was launched in 2009, sponsored by the Administration for Children and Families (ACF) Office of Planning, Research, and Evaluation (OPRE) within the U.S. Department of Health and Human Services (HHS).

The team then assesses each eligible finding from impact research (that is, those using randomized controlled trials or certain non-experimental comparison group designs) for every prioritized model, and rates the quality of the research as high, moderate, or low. The rating depends on the ability of the study reported in the manuscript to produce unbiased estimates of a model's effects. This rating system helps the team distinguish between more and less rigorous research; the more rigor, the more confidence the review team has that findings were caused by the model itself, and not by other factors.[5,6]

HomVEE uses manuscripts with a finding that rates high or moderate to determine whether the model meets HHS criteria for evidence-based models (see Box 1).[7] The team also creates implementation profiles for all models included in the review. The profiles are based on information from impact research rated high or moderate, stand-alone implementation studies, input from model developers, and Internet searches.

Box 1. HHS Criteria for Evidence-Based Models

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

In both cases, the impacts must either (1) be found in 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, following the MIECHV-authorizing statute, if the model meets the above criteria based on findings from randomized controlled trial(s) only, then two additional requirements apply. First, one or more favorable, statistically significant impacts must be sustained for at least one year after program enrollment. Second, one or more favorable, statistically significant impacts must be reported in a peer-reviewed journal.*

* These criteria are consistent with the MIECHV statutory requirements: Section 511 (d)(3)(A)(i)(I). The criteria were updated in November 2021 to reflect that, under the Version 2.1 Handbook of Procedures and Standards, HomVEE now calculates a design-comparable effect size for single-case design research and uses that to assess significance. Prior to the November 2021 update, results from single-case design research had to meet additional requirements to meet the HHS criteria. See Appendix D of the HomVEE Version 2.1 Handbook for additional details.

Summarizing the Results

As of the 2021 Track 2 review, HomVEE has reviewed the available evidence on 50 home visiting models, including impact reviews of 472 manuscripts about impact research. HomVEE has also identified 333 manuscripts describing implementation research about these models.[8,9] Some studies are included in both counts because they contain information on both impacts and implementation.

Evidence of effectiveness. Of the 50 home visiting models that were reviewed, 21 meet the HHS criteria for an evidence-based early childhood home visiting service delivery model (Table 1).

Table 1. Twenty-one models meeting HHS criteria

Model	Review last updated
Attachment and Biobehavioral Catch-Up (ABC-Infant)	2020
Child First	2011
Early Head Start Home-Based Option (EHS-HBO)	2016
Early Intervention Program for Adolescent Mothers[a]	2011
Early Start (New Zealand)	2014
Family Check-Up® For Children	2021
Family Connects	2014
Family Spirit®	2016
Health Access Nurturing Development Services (HANDS) Program	2015
Healthy Beginnings	2015
Healthy Families America (HFA)®	2020
Healthy Steps (National Evaluation 1996 Protocol)[a,b]	2011
Home Instruction for Parents of Preschool Youngsters (HIPPY)®	2020
Maternal Early Childhood Sustained Home Visiting Program (MECSH)	2013
Maternal Infant Health Program (MIHP)	2019
Minding the Baby® Home Visiting (MTB-HV)	2014
Nurse-Family Partnership (NFP)®	2019
Oklahoma's Community-Based Family Resource and Support (CBFRS) Program[a]	2012
Parents as Teachers (PAT)®	2019
Play and Learning Strategies (PALS) Infant[c]	2019
SafeCare® Augmented[d]	2018

[a] Implementation support is not currently available for the model as reviewed.

[b] 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 Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program implementation.

[c] Some other versions of PALS have at least one manuscript about a high- or moderate-quality impact study, but no version of the model other than PALS Infant meets HHS criteria for an "evidence-based early childhood home visiting service delivery model."

[d] SafeCare did not meet HHS criteria for an "evidence-based early childhood home visiting service delivery model." Only SafeCare Augmented (an adaptation of SafeCare) meets HHS criteria. In addition, Planned Activities Training (a SafeCare module) and Cellular Phone Enhanced Planned Activities Training (a cellular phone-enhanced SafeCare module) showed evidence of effectiveness. See the model page (https://homvee.acf.hhs.gov/effectiveness/SafeCare®/In%20Brief) for details on the module and the enhanced module.

HomVEE reviewed 31 other home visiting models that did not meet HHS criteria (Table 2). Twelve of these models had high or moderate quality research, but 9 of them did not meet HHS criteria for replicating favorable findings, and 3 did not meet HHS criteria for sustained impacts for research using randomized controlled trials. There was no high or moderate quality research on the remaining 19 models based on HomVEE standards.

Table 2. Thirty-one models that do not meet HHS criteria[a]

Model	Review last updated
Child Parent Enrichment Project (CPEP)	2012
Childhood Asthma Prevention Study (CAPS)	2012
Computer-Assisted Motivational Intervention (CAMI)	2012
Early Steps to School Success™—Home Visiting	2019
Even Start-Home Visiting (Birth to Age 5)[b]	2011
Family Connections (Birth to Age 5)	2011
Following Baby Back Home (FBBH)	2020
HealthConnect One's® Community-Based Doula Program	2015
Healthy Start-Home Visiting[c]	2018
Home-Start	2012
HOMEBUILDERS (Birth to Age 5)®	2011
Maternal Infant Health Outreach Worker (MIHOW)®	2018
MOM Program	2013
Mothers' Advocates in the Community (MOSAIC)	2013
North Carolina Baby Love Maternal Outreach Workers Program[b]	2012
Nurses for Newborns®	2015
Nurturing Parenting Programs (Birth to Age 5)	2011
Parent-Child Assistance Program (P-CAP)	2016
ParentChild+® Core Model	2019
Philani Outreach Programme	2014
Play and Learning Strategies (PALS)[d]	2019
Pride in Parenting (PIP)[b]	2013
Promoting First Relationships® - Home Visiting Options	2021
Promoting Parental Skills and Enhancing Attachment in Early Childhood (CAPEDP) Trial[b]	2019
Resource Mothers Program[b]	2011
Resources, Education, and Care in the Home (REACH)	2011
REST Routine[b]	2012
SafeCare®[e]	2018
Seattle-King County Healthy Homes Project	2012
Triple P-Positive Parenting Program®—Variants suitable for home visiting	2019
Video-Feedback Intervention to Promote Positive Parenting-Sensitive Discipline® (VIPP-SD)	2019

[a] In two cases (SafeCare and Play and Learning Strategies [PALS]), a model does not meet HHS criteria, but a version of that model does. Therefore, those models appear in both Tables 1 and 2.

[b] Implementation support is not currently available for the model as reviewed.

[c] 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 website as of 2018.

[d] This row combines information across all versions of PALS except for PALS Infant. Some other versions of PALS have at least one manuscript about an impact study rated high or moderate in quality, but no version of the model other than PALS Infant meets HHS criteria.

[e] This row combines information across all versions of SafeCare except for SafeCare Augmented. The main version of SafeCare has no impact research rated high or moderate in quality. There is at least some such research on some other versions of SafeCare, but no version of the model other than SafeCare Augmented meets HHS criteria. Planned Activities Training (a SafeCare module) and Cellular Phone Enhanced Planned Activities Training (a cellular phone-enhanced SafeCare module) show evidence of effectiveness.

For a summary of the evidence on models reviewed by HomVEE, please visit the website at https://homvee.acf.hhs.gov/evidence-overview. A summary of implementation guidelines for each model can be found at https://homvee.acf.hhs.gov/models-implementation-guidelines.

More Information

The HomVEE website (https://homvee.acf.hhs.gov/) has 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
- A searchable reference list that gives the disposition of each manuscript that was considered for all reviewed models
- The HomVEE Version 2.1 Handbook, which contains details about the review process and a glossary of terms
- Responses to frequently asked questions

For more information, please contact the HomVEE team at HomVEE@acf.hhs.gov.

Endnotes

[1] Track 1 findings were released in September (and remain unchanged). This updated release includes findings from Track 2.

[2] These domains were selected to align with the outcomes specified in the statute authorizing the Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) (Social Security Act, Section 511 [42 U.S.C. 711]).

[3] MIECHV provides funds to states, territories, and tribal entities for home visiting programs for at-risk pregnant women and families with children whose ages range 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 services are offered on a voluntary basis to pregnant women, expectant fathers, and parents and caregivers of children from birth to kindergarten entry. Participant outcomes 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.

[4] For more information about HomVEE's prioritization process, see https://homvee.acf.hhs.gov/publications/methods-standards.

[5] For more information about producing manuscript ratings, see https://homvee.acf.hhs.gov/publications/methods-standards.

[6] This brief summarizes models reviewed using HomVEE's original review process and standards, which were revised in late 2020, its Version 2.0 Procedures and Evidence Standards, which were released in December 2020, and its Version 2.1 Procedures and Evidence Standards, which were released in November 2021. HomVEE began using its Version 2.0 Procedures and Evidence Standards with the 2021 review, and in 2021 retroactively applied the Version 2.1 Procedures and Evidence Standards to all single-case design research HomVEE had reviewed to date. For more information and copies of the original and revised standards, see https://homvee.acf.hhs.gov/publications/methods-standards.

[7] The HHS criteria are also available at https://homvee.acf.hhs.gov/about-us/hhs-criteria.

[8] Manuscripts in the 2021 review included literature published through September 2020. HomVEE also considered submissions to the call for studies of unpublished manuscripts or manuscripts published through December 2020.

[9] These counts represent the total number of manuscripts. Earlier versions of this brief reported higher total counts because the counts summed totals across all model versions, thus double-counting manuscripts that included research about multiple model versions.