Home Visiting Evidence of Effectiveness Review's Model Prioritization Process

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OPRE Report #2024-011

This brief describes the procedures the HomVEE review uses to determine which early childhood home visiting models to review each year. Given limited resources, HomVEE cannot review all models with new research each year. Therefore, HomVEE prioritizes among eligible home visiting models to review.

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

HomVEE reviews models on two tracks

HomVEE reviews models on two tracks and selects the models for each track in different ways. This two-track approach for identifying which models to review each year reflects HomVEE's emphasis on identifying new evidence-based early childhood home visiting models[1] while continuing to update reports on evidence-based models that HomVEE previously reviewed:

- **Track 1** is for models that are not yet evidence based (that is, models that HomVEE has never reviewed and those that HomVEE has reviewed and determined were not yet evidence based). Each year, HomVEE uses a ***prioritization process*** to select the Track 1 models for review by calculating a prioritization score and then reviewing models with the highest scores. The prioritization score is based on points assigned at the manuscript and model levels.
- **Track 2** is for models that HomVEE has already reviewed and found to be evidence based. HomVEE reviews Track 2 models on a ***predetermined schedule***.[2] During a Track 2 review, HomVEE does not reassess the HHS criteria—a Track 2 model will remain evidence based. When resources are limited, HomVEE may select Track 2 manuscripts for review based on rigor, recency, and setting.[3]

Table 1 summarizes the differences between each track.

About HomVEE

The mission of the Home Visiting Evidence of Effectiveness (HomVEE) review is to conduct a thorough and transparent review of impact research on 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 5). HomVEE's results determine which home visiting models meet the U.S. Department of Health and Human Services' (HHS') criteria for an "evidence-based early childhood home visiting service delivery model." Meeting these HHS criteria is a key eligibility requirement for programs implemented with funding from the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program, which provides funding to states, territories, and tribal entities to implement home visiting models. The HomVEE review was launched in 2009 and is sponsored by the Administration for Children and Families' Office of Planning, Research, and Evaluation within HHS.

Table 1. Differences between HomVEE tracks

Question	Track 1	Track 2
What is the purpose of the review?	To identify new evidence-based early childhood home visiting models.	To keep existing model reports current and up to date with the latest research.
How are models identified for review?	Prioritization process (see Figure 1).	Predetermined schedule.
Are all eligible manuscripts about the model reviewed?	Yes. HomVEE will review all manuscripts that meet its eligibility criteria and have not yet been reviewed under the current standards.	Not always. In years when resources are limited, HomVEE may select Track 2 manuscripts for review based on rigor, recency, and setting.[3]
Are HHS criteria assessed during the review?	Yes. Every time a Track 1 model is reviewed, HomVEE will assess whether it meets HHS criteria using all research about the model that HomVEE has reviewed (including research HomVEE reviewed in past years).	No. If a model has met the HHS criteria in the past, HomVEE will not reassess whether the model still meets HHS criteria.

The prioritization process for Track 1 models

The rest of this brief focuses on Track 1 models and describes each step in the prioritization process (see Figure 1). This brief also provides *hypothetical examples* to illustrate the prioritization criteria and answers frequently asked questions about prioritization.

▶ Step 1. Identify manuscripts eligible for review

First, HomVEE identifies manuscripts that are eligible for review.[4] Each year, HomVEE conducts a broad literature search to identify manuscripts about early childhood home visiting models. This search includes two parts: (1) a database search on relevant keywords and (2) an invitation for submissions to HomVEE's annual call for research. The database search is limited to research about models that use early childhood home visiting as the primary service delivery strategy and that aim to improve outcomes in at least one of the eight HomVEE domains. More information about HomVEE's literature search process is available in the HomVEE Handbook: https://homvee.acf.hhs.gov/publications/methods-standards.

▶ Step 2. Assign points to each manuscript

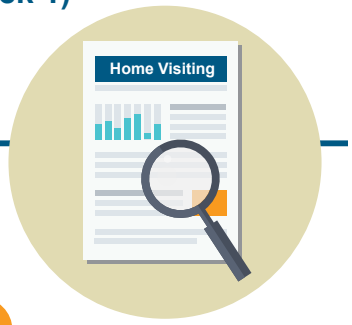
Then, HomVEE reviews the titles and abstracts of manuscripts about impact studies for each model and assigns points based on HomVEE's prioritization criteria (Table 2). These criteria reflect HomVEE's emphasis on (1) reviewing manuscripts about well-designed impact studies, (2) examining outcomes of interest to HHS, and (3) aligning to the MIECHV Program's statutory requirements. Models can earn up to 6.5 points for each eligible manuscript about an impact study. HomVEE assesses each manuscript separately and then sums the points for all manuscripts about a model. The total includes manuscript-level points from two possible sources: (1) manuscripts that HomVEE previously reviewed, remain eligible from that review, and were assigned a high or moderate rating, and (2) manuscripts that HomVEE has not previously reviewed.[5] Therefore, models with more eligible manuscripts tend to receive more manuscript-level points. To illustrate these manuscript-level criteria, Box 1 provides three hypothetical examples.

Table 2. HomVEE manuscript-level prioritization criteria and associated points

Criterion	Points	Notes
Study design	2 to 3 per manuscript	3 points for each manuscript about a randomized controlled trial, single-case design, or regression discontinuity design (because these designs are eligible for HomVEE's highest rating). 2 points for each manuscript about a non-experimental comparison group design (because this design is eligible for HomVEE's moderate rating).
Sample size	1 per manuscript	Total sample size reported in manuscript contains 250 or more pregnant women and/or families. (Sample size refers to the total number of participants in both the treatment and comparison conditions, and the largest analytic sample size reported in the manuscript being reviewed after any attrition.)

Figure 1. HomVEE's process for prioritizing models that are not yet evidence based (Track 1)

HomVEE systematically selects Track 1 models to review each year by calculating prioritization scores based on manuscript- and model-level criteria.



Identify manuscripts eligible for review

Assign points to each manuscript

Assign points to each model

Calculate prioritization scores

Adjust prioritization scores for top-scoring models

Prioritize Track 1 models

Step 1

HomVEE identifies manuscripts about home visiting models through a database search and submissions to its annual call for research.

Step 2

Eligible manuscripts are assigned manuscript-level points based on study design and sample characteristics.

Step 3

Each model with eligible manuscripts receives model-level points based on model characteristics relevant to MIECHV.

Step 4

HomVEE calculates a score for each model by summing its model-level and manuscript-level points.

Step 5

Scores are adjusted based on focused searching for additional information on the top-scoring models.

Step 6

HomVEE prioritizes among the highest-scoring models in Track 1. HomVEE then reviews the research on the prioritized models.

Note: HomVEE uses a two-track approach for identifying which models to review each year. Track 1 models are models that HomVEE has not previously found to be evidence based. This includes models that HomVEE has reviewed in the past but did not find to be evidence based and models that HomVEE has not yet reviewed. Track 2 models are models that HomVEE has already reviewed and found to be evidence based. HomVEE reviews Track 2 models on a predetermined schedule that is based on expected volume of new research and recency of a model's review.

Criterion	Points	Notes
Outcomes of interest	1 per manuscript	Manuscript examines outcomes in one or more of the following domains for which HomVEE has seen comparatively less research over time: family economic self-sufficiency; linkages and referrals; reductions in child maltreatment; and reductions in juvenile delinquency, family violence, or crime.[6]
Sample location	0.5 per manuscript	The entire sample reported in the manuscript lives in the United States.
Indigenous population	0.5 per manuscript	The entire sample reported in the manuscript is part of an indigenous population living in or outside the United States.
Priority population	0.5 per manuscript	The entire sample belongs to one or more priority populations named in the MIECHV authorizing statute.[7]

Note: HomVEE initially applies these points at the manuscript level based on information that manuscript authors provide in the title and abstract (Step 2). HomVEE assesses each manuscript separately and then sums the points for all manuscripts to create a manuscript-level total for the model. After identifying the top-scoring models, HomVEE adjusts the manuscript-level points for those models based on information in the full text (Step 5).

Box 1. Hypothetical point allocation at the manuscript level

Example: Manuscript 1 is about a group of 100 pregnant women living in Florida. All were smokers when they enrolled in the program. The early childhood home visiting model sought to reduce smoking among pregnant women and used a matched-comparison group design. How many prioritization points would this manuscript earn?

- **3.0 points.** This manuscript earns 2 points for a *non-experimental comparison group design*, 0.5 points because the *participants lived in the United States*, and 0.5 points because *all participants belonged to one of the MIECHV priority populations* (families with users of tobacco products in the home).

Example: Manuscript 2 is about a randomized controlled trial of 500 pregnant adolescents. The early childhood home visiting model is designed to help them become economically self-sufficient. The study measured employment outcomes and use of public benefit programs in the community. How many prioritization points would this manuscript earn?

- **5.5 points.** This manuscript earns 3 points because it's about a *randomized controlled trial*, 1 point for a *sample larger than 250*, 1 point for *outcomes of interest* (family economic self-sufficiency), and 0.5 points for a *MIECHV priority population* (pregnant women younger than 21).

Example: Manuscript 3 is about a single-case design to test the impact of an early childhood home visiting model run by and for members of an indigenous group in Alberta, Canada. The model focuses on improving maternal and child health by enrolling people during their pregnancy and continuing home visits through the child's fifth birthday. How many prioritization points would this manuscript earn?

- **3.5 points.** This manuscript earns 3 points for a *single-case design* and 0.5 points because *participants belong to an indigenous population*.

Step 3. Assign points to each model

Next, HomVEE assigns model-level points based on information from manuscript titles and abstracts, model websites, and previous HomVEE reviews.[8] Model-level points relate to eligibility requirements for the MIECHV Program. This increases the likelihood that models potentially eligible for MIECHV funding will be prioritized. Models can earn up to 4 points in this step, one for each of the following:

- The model is associated with a national organization or institution of higher education (organizations can be in or outside the United States).
- The model is currently serving or available to serve families.
- The model has been implemented for at least three years (even if it is not currently active).
- Support is available to implement the model in the United States.

To illustrate these model-level criteria, Box 2 provides three hypothetical examples.

Box 2. Hypothetical point allocation at the model level

Example: An early childhood center at a university in South Dakota developed and implemented **The South Dakota Model**. It was used from 2004 to 2010 but is not currently active. The model developer's contact information is available online if communities want to implement the model in their area. How many prioritization points would this model earn?

- **3 points.** The South Dakota Model earns 1 point for being associated with an institution of higher education, 1 point for being implemented for at least three years, and 1 point for having support available for implementation in the United States.

Example: A group in Hawaii designed and first implemented **The Hawaii Model** two years ago, and it is currently serving families. Additional information, including contact information for the model, is not available online. How many prioritization points would this model earn?

- **1 point.** The Hawaii Model earns 1 point for being currently active.

Example: A national child welfare organization implemented and supported **The Child Welfare Model**. It has been in use for more than 10 years and is currently active in three countries (none of which are the United States). The model is not able to provide implementation support in the United States. How many prioritization points would this model earn?

- **3 points.** The Child Welfare Model earns 1 point for being associated with a national organization, 1 point for being implemented for at least three years, and 1 point for being currently active.

Step 4. Calculate prioritization scores

After assigning manuscript- and model-level points, HomVEE sums all points to calculate a model's point total. Table 3 in Box 3 provides examples of prioritization score calculations.

Step 5. Adjust prioritization scores for top-scoring models

Next, HomVEE sorts models from highest to lowest score. Then for top-scoring models, HomVEE examines the full texts of all screened-in manuscripts and updates the manuscript-level point totals (and the models' corresponding prioritization scores) using information available from the full texts. The threshold for top scores is based on the distribution of scores, volume of eligible research for each model, and available resources for each year's review. This step adjusts scores to include information relevant to prioritization but missing from manuscript titles and abstracts.

Step 6. Prioritize Track 1 models

Then, HomVEE re-sorts models from highest to lowest using the adjusted prioritization scores and selects models with the highest scores for review. HomVEE contacts these models' developers to inform them that the model is initially prioritized for review. HomVEE shares with the developer a list of the research that HomVEE has identified about the model and invites model developers to send HomVEE additional research to include in the review. HomVEE screens any additional research shared by model developers using the full text, and any research that is eligible for review by HomVEE will be added to the review for that year. Prioritization scores are not adjusted to reflect new research submitted in response to HomVEE's notification of initial prioritization.

Box 3 illustrates the prioritization process for three hypothetical models.

In any given year, the number of models prioritized for review depends on available project resources and the number of manuscripts identified to review for each model. Regardless of whether HomVEE reviews a model in a given year, HomVEE will include the model and its associated manuscripts in the prioritization process in subsequent years, although no model will be reviewed in two consecutive years. The MIECHV Program may coordinate with HomVEE to prioritize review of promising approaches implemented and evaluated under a MIECHV grant.[9]

Box 3. Hypothetical prioritization of three models

Table 3 shows prioritization scores for three hypothetical models. The final row lists the order in which HomVEE would prioritize these models for review. These examples demonstrate the importance the prioritization score places on the number and type of manuscripts about impact studies eligible for review, and the model point total.

Table 3. Final prioritization scores and ranks for three hypothetical models

Scores/rank	Model A	Model B	Model C
Manuscript-level total	19.5	16.5	19.5
Model-level total	1	1	3
Final prioritization score	**20.5**	**17.5**	**22.5**
Prioritization rank	**2**	**3**	**1**

Note: The manuscript-level total is the sum of points for all eligible manuscripts about the model.

- Model C is the highest-ranking model. It ties for the highest manuscript-level total and has the highest model-level total. The combination of the high manuscript- and model-level point totals results in the highest prioritization score.
- Model A has the same number of manuscript-level points as Model C but fewer model-level points.
- Model B, the lowest-ranking model, has the same number of model-level points as Model A but fewer manuscript-level points.

More information

Still have questions about the HomVEE prioritization process? Please visit the Frequently Asked Questions page of the HomVEE website (https://homvee.acf.hhs.gov/about-us/Frequently%20Asked%20Questions).

For more information about the model prioritization process, please visit the HomVEE website (https://homvee.acf.hhs.gov) or email the HomVEE team at homvee@acf.hhs.gov.

Details about the prioritization and review process are available in the HomVEE Handbook: https://homvee.acf.hhs.gov/publications/methods-standards.

Endnotes

[1] For the purposes of the HomVEE review, this brief uses the term *evidence-based model* to refer specifically to a model that meets U.S. Department of Health and Human Services (HHS) criteria developed based on statutory requirements in the authorizing legislation for the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program. More information is available at https://homvee.acf.hhs.gov/about-us/hhs-criteria.

[2] The schedule for updating Track 2 models is based on expected volume of new research and recency of a model's review.

[3] HomVEE will not review research conducted outside the United States on a Track 2 model that is based in the United States unless: (1) review resources for that year permit, or (2) the research was conducted with indigenous communities outside the United States. This is because, when resources are limited, HomVEE aims to prioritize review of studies that are more likely to resemble the context in which MIECHV grantees might be implementing home visiting models. However, research in indigenous communities is always of interest to HomVEE given the existence of a separate Tribal MIECHV program. If studies conducted outside the United States are not reviewed, the HomVEE website will clearly indicate which research was and was not included in the updated Model Effectiveness Research Report.

[4] The search and screening process to identify eligible research is the same for models in Track 1 and Track 2. Manuscripts about Track 1 models that meet the screening criteria are eligible for review and are included in the model prioritization process.

[5] More information about HomVEE's process for rating individual manuscripts about impact studies as high, moderate, low, or indeterminate is available in the HomVEE Handbook: https://homvee.acf.hhs.gov/publications/methods-standards.

[6] More information about these outcome domains is available at https://homvee.acf.hhs.gov/outcomes.

[7] According to the Social Security Act, Section 511(d)(5) [42 U.S.C. 711(d)(5)], priority populations are as follows:

- Low-income families
- Families with pregnant women who have not reached 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 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 United States

[8] HomVEE may contact manuscript authors or model developers to confirm publicly available information.

[9] The MIECHV Program may coordinate with HomVEE to prioritize review of promising approaches implemented and evaluated under a MIECHV grant. Under federal law, a home visiting service delivery model that qualifies as a promising approach conforms to a "promising and new approach" to achieving specified benchmark areas and participant outcomes, has been developed or identified by a national organization or institution of higher education, and will be evaluated through a well-designed and rigorous process. (See Social Security Act, Title V, § 511 (d)(3)(A)(i)(II) [42 U.S.C. 711 (d)(3)(A)(i)(II)]; www.ssa.gov/OP_Home/ssact/title05/0511.htm).