



# ABOUT HomVEE

## Home Visiting Evidence of Effectiveness Review's Model Prioritization Process

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This brief describes the procedures the Home Visiting Evidence of Effectiveness (HomVEE) review uses to determine which early childhood home visiting models to review each year.

The process for selecting models for review is called the prioritization process (see Figure 1). The number of models prioritized for review by HomVEE each year depends on: (1) the number of manuscripts identified for review about each model and (2) the available project resources. The brief provides hypothetical examples to illustrate the prioritization criteria and answers frequently asked questions about prioritization.

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

## The prioritization process

Each year, HomVEE selects models for the annual 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. Beginning with the 2019 review, HomVEE divides reviews into two tracks. **Track 1** is for models that are not evidence based (that is, models that have never been reviewed by HomVEE or were reviewed but did not meet the criteria for evidence of effectiveness). **Track 2** updates the review of the literature on evidence based models (that is, models that have previously been reviewed by HomVEE and did meet the criteria for evidence of effectiveness). HomVEE prioritizes models separately in each track, but the process is similar for both. Below (and in Figure 1), we describe each step in the prioritization process and how it differs for models that are or are not evidence based.

### ► Step 1: Identify manuscripts eligible for review

First, HomVEE identifies manuscripts that are eligible for review. 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) submissions to HomVEE's annual call for research. Manuscripts can be published or unpublished research.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 Version 2 Handbook: <https://homvee.acf.hhs.gov/publications/methods-standards>.

### ► Step 2: Assign points to each manuscript

Then, HomVEE reviews the titles and abstracts of impact manuscripts for each model and assigns points based on HomVEE's prioritization criteria (Table 1). Models can earn up to 6.5 points for each eligible manuscript about an impact study.<sup>1</sup> HomVEE assesses each manuscript separately and then sums the points for all manuscripts about a model.

Therefore, models with more eligible manuscripts tend to receive more manuscript-level points. Whether a model is already evidence based determines which manuscripts are included in that model's manuscript-level point total:

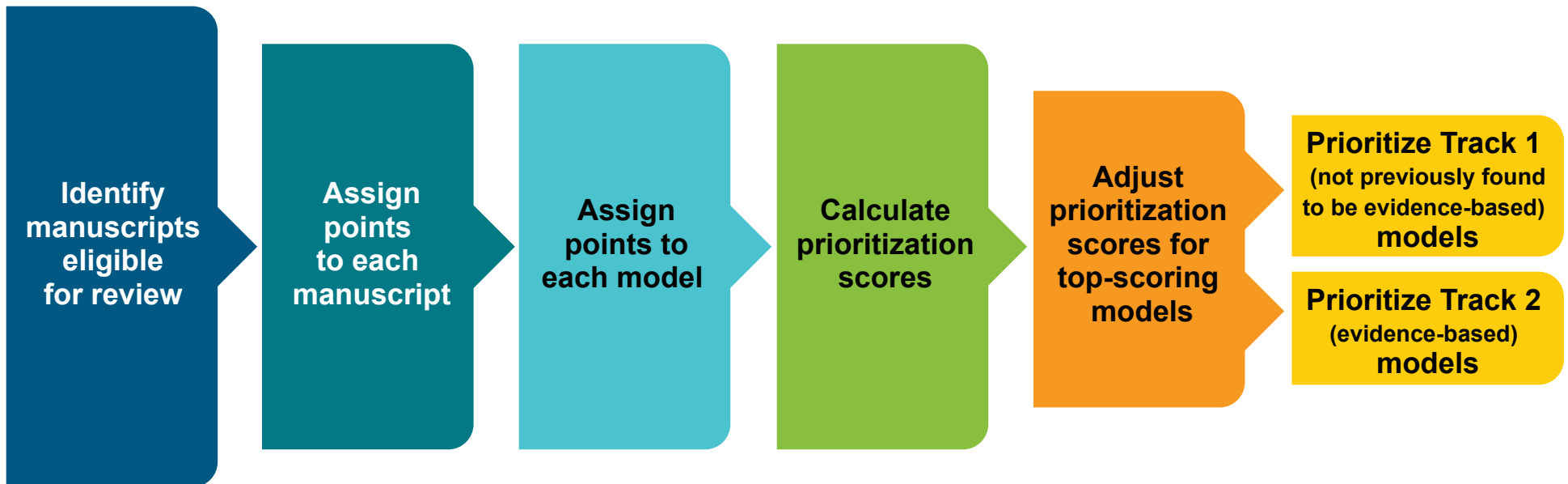
- If a model is not evidence based (Track 1), the total includes manuscript-level points for manuscripts that HomVEE reviewed in previous years and assigned a high or moderate rating, as well as manuscripts that HomVEE has not previously reviewed.<sup>2</sup>
- If a model is already evidence based (Track 2), the total includes points only for manuscripts that HomVEE has not reviewed yet.

To illustrate these manuscript-level criteria, Box 1, on page 3, provides three hypothetical examples.



## Figure 1. HomVEE's process for prioritizing models to review each year

HomVEE uses a systematic process to select models that will be reviewed each year by calculating prioritization scores based on manuscript- and model-level criteria.



### Step 1

Each year, 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. Scores for evidence-based models are then weighted so models reviewed less recently are more likely to have higher scores.

### Step 5

Scores are adjusted based on focused searching for additional information on the top-scoring models in Track 1 (not previously found to be evidence-based models) and Track 2 (evidence-based models).

### Step 6

HomVEE prioritizes among highest scoring models in each track. HomVEE then reviews the research about models that are prioritized.

Evidence-based models meet HHS criteria for an “evidence-based early childhood home visiting service delivery model.”

**Table 1. HomVEE manuscript-level prioritization criteria and associated points**

Criteria	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 nonexperimental comparison group design (because this design is eligible for HomVEE's moderate rating, at best).
Sample size	1 per manuscript	Total sample size reported in manuscript contains 250 or more pregnant women and/or families.
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. <sup>3</sup>
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 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 Maternal, Infant, and Early Childhood Home Visiting (MIECHV) authorizing statute. <sup>4</sup>

Note: HomVEE applies these points at the manuscript level based on information that manuscript authors provide in the title and abstract. HomVEE assesses each manuscript separately and then sums the points for all manuscripts to create a manuscript-level total for the model.

### Box 1. Hypothetical point allocation at the manuscript level

**Example: Manuscript 1** is about a group of 100 pregnant women living in Florida. All women 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 study earn?

- **3.0 points.** This manuscript earns 2 points for a *nonexperimental 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 women 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.<sup>5</sup> This process is identical for Tracks 1 and 2. Models can earn up to 4 points in this step, 1 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.

These model-level factors are criteria relevant to Maternal, Infant, and Early Childhood Home Visiting (MIECHV), in order to more closely align HomVEE with the MIECHV Program.

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** in 2017, 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 across both levels to calculate a model's point total and then applies a weight (that is, a multiplier) to the point total. For models that are not yet evidence based (Track 1), HomVEE assigns a weight of 1. That is, the point total is equal to the final model prioritization score. For models that are evidence based (Track 2), HomVEE assigns a weight based on the number of years since the model was last reviewed and a report was released by HomVEE, using the following formula:

$$\text{Weight} = [1 + 0.1 * (\text{current year} - \text{release date of prior report})]^2$$

For example, a model considered for review in 2021 that had its most recent HomVEE report released in 2017 would get a weight of  $[1 + 0.1 * (2021 - 2017)]^2 = 1.96$ . A model considered for review in 2021 that was last reviewed in 2019 would receive a weight of  $[1 + 0.1 * (2021 - 2019)]^2 = 1.44$ . As this example illustrates, models reviewed less recently receive higher weights.

For both Tracks 1 and 2, models cannot be reviewed in two consecutive years, so HomVEE assigns models reviewed in the previous cycle a weight of 0.

After calculating weights, a model's final prioritization score is then calculated as:  $\text{Prioritization score} = (\text{Manuscript-level points} + \text{Model-level points}) * \text{Weight}$ .

The weights ensure that no model is reviewed in two consecutive years. All Track 1 models are weighted equally, but Track 2 models are weighted so that models HomVEE reviewed longer ago have a higher likelihood of being prioritized for review than models reviewed more recently. This permits the review of evidence based models to be updated periodically as new research on the model or one of its related versions emerges. Table 2 in Box 3 provides examples of weight and prioritization score calculations.

### ▶ Step 5: Adjust prioritization scores

After calculating prioritization scores, HomVEE sorts models from highest to lowest score separately within each track. The team then conducts a focused database search on model names to identify additional manuscripts about highest-scoring models in each track. In addition, HomVEE examines the full texts of all screened-in manuscripts about highest-scoring models and then adjusts the manuscript-level point totals (and the models' corresponding prioritization scores) using information available from the full texts. This step updates scores to include information relevant to prioritization but missing from manuscript titles and abstracts.

### Box 3. Hypothetical prioritization of six models

Table 2 shows prioritization scores for six hypothetical models. Models A through C are not evidence based and are sorted in Track 1. Models D through F are evidence based and are sorted in Track 2. HomeVEE prioritizes models separately in each track, but the process is similar for both. The final row lists the order in which HomVEE would prioritize these models for review, ranked separately for each track. These examples demonstrate the importance the prioritization score places on the number and type of impact manuscripts eligible for review, the model point total, and, for models that are evidence based, the number of years since the prior review (weight).

**Table 2. Final prioritization scores and ranks for six hypothetical models**

	Not evidence based (Track 1)			Evidence based (Track 2)		
	Model A	Model B	Model C	Model D	Model E	Model F
Manuscript-level total	19.5	16.5	19.5	21.5	11.5	21.5
Model-level total	1	1	3	3	3	3
<b>Model point total</b>	<b>20.5</b>	<b>17.5</b>	<b>22.5</b>	<b>24.5</b>	<b>14.5</b>	<b>24.5</b>
Year of most recent report	2016	2019	2019	2016	2019	2019
Current year	2021	2021	2021	2021	2021	2021
Weight	1	1	1	2.25	1.44	1.44
<b>Final prioritization score</b>	<b>20.5</b>	<b>17.5</b>	<b>22.5</b>	<b>55.13</b>	<b>20.9</b>	<b>35.3</b>
<b>Prioritization rank</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>2</b>

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

#### Track 1 (not evidence based):

- Model C, the highest-ranking model in Track 1, 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.
- Note that in Track 1, HomVEE assigns all models a weight of 1 such that the year of the most recent report does not affect the total prioritization score (unless they were reviewed in the prior year, in which case they are assigned a weight of 0).

#### Track 2 (evidence based):

- Model D, the highest-ranking model, has not been reviewed in five years, resulting in a higher weight than models HomVEE has reviewed more recently. The combination of the high weight and the high point total results in the highest prioritization score.
- Model E was reviewed two years ago and has the same model-level point total as Model F, but because it has a lower manuscript-level total, it is prioritized below Model F.
- Model F has the same high point total as Model D but was reviewed two years ago, hence its low weight and lower prioritization score.

## ► Step 6: Prioritize models

HomVEE re-sorts models in each track from highest to lowest using the adjusted prioritization scores and identifies models with the highest scores. After selecting a model to review, HomVEE generally reviews all eligible new manuscripts about impact studies of that model, including research on its related versions. However, HomVEE will not review research conducted outside the United States on a Track 2 model 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 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 HomVEE does not review studies conducted outside the United States, the HomVEE website will clearly indicate which research was and was not included in the updated report.

Box 3 illustrates the prioritization process for six hypothetical models.

HomVEE's prioritization process reflects HomVEE's emphasis on identifying new evidence-based early childhood home visiting models (Track 1) while continuing to update reports on models that are already evidence based (Track 2). 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, the team 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<sup>6</sup> implemented and evaluated under a MIECHV grant.

## More Information

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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](mailto:homvee@acf.hhs.gov).

Details about the prioritization and review process are available in the HomVEE Version 2 Handbook: <https://homvee.acf.hhs.gov/publications/methods-standards>.

## Endnotes

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<sup>1</sup>The screening process HomVEE uses to identify manuscripts is described in the HomVEE Version 2 Handbook: <https://homvee.acf.hhs.gov/publications/methods-standards>. Manuscripts that meet the screening criteria are eligible for review and are included in the model prioritization process.

<sup>2</sup> More information about HomVEE's process for rating individual effectiveness manuscripts as high, moderate, or low is available in the HomVEE Version 2 Handbook: <https://homvee.acf.hhs.gov/publications/methods-standards>.

<sup>3</sup> More information about these outcome domains is available at <https://homvee.acf.hhs.gov/outcomes>.

<sup>4</sup> According to Social Security Act, Section 511 [42 U.S.C. 711], priority populations are as follows:

- Low-income families
- Families who are 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

<sup>5</sup> HomVEE may contact manuscript authors or model developers to confirm publicly available information.

<sup>6</sup> 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 well designed and rigorous process. (See Social Security Act, Title V, § 511 (d); [www.ssa.gov/OP\\_Home/ssact/title05/0511.htm](http://www.ssa.gov/OP_Home/ssact/title05/0511.htm)).