Home Visiting Evidence of Effectiveness Review: Process and Results

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Purpose of the Briefing

- Explain the evidence review process
- Discuss the review results
- Preview the HomVEE website
- Discuss next steps

Background

- The Maternal, Infant, and Early Childhood Home Visiting Program was established through the Patient Protection and Affordable Care Act.
- The Act provides $1.5 billion to states over 5 years to establish early childhood home visiting programs.
- At least 75% of the funds must be used for home visiting program models with evidence of effectiveness based on well-designed and rigorous research.

Home Visiting Evidence of Effectiveness Review

- **OPRE/ACF contracted with Mathematica Policy Research in September 2009.**
  - **Potential conflicts of interest addressed**
- **The review was carried out under the guidance of an HHS working group:**
  - **Office of Planning, Research and Evaluation/ACF**
  - **Children's Bureau/ACF**
  - **CDC/Division of Violence Prevention**
  - **CDC/National Center on Birth Defects and Developmental Disabilities**
  - **Heath Resources and Services Administration**
  - **Office of the Assistant Secretary for Planning and Evaluation**

Early Childhood Home Visiting Program Model

- **Target population includes pregnant women or families with children birth to age 5.**
- **Home visiting used as the primary service delivery strategy.**
- **Home visits were voluntary for pregnant women, expectant fathers, and parents and caregivers of children birth to kindergarten entry.**
- **Models that provide services primarily in centers with supplemental home visiting were *excluded*.**
- **Home visits targeted at least one of the participant outcomes.**

Targeted Outcome Domains

- Child health
- Maternal health
- Child development and school readiness
- Family economic self-sufficiency
- Linkages and referrals
- Positive parenting practices
- Reductions in child maltreatment
- Reductions in juvenile delinquency, family violence, and crime

Steps in the Review Process

- Step 1: Identify potentially relevant studies.
- Step 2: Screen studies.
- Step 3: Prioritize program models.
- Step 4: Rate the quality of the studies.
- Step 5: Assess the evidence of effectiveness.
- Step 6: Review implementation information.

Defining Studies and Samples

- **Study: a single publication or report**
- **Sample: the group of children and families that participated in an evaluation of a program model and whose data were analyzed and reported together**

Step 1: Identify Studies

- Key word searches in research databases
- Google search of websites for “grey literature”
- Review of existing literature syntheses
- Public call for studies, widely distributed

HomVEE identified more than 7,000 unduplicated citations, including 150 articles submitted through the call for studies.

Step 2: Screen Studies

- **We screened out studies for the following reasons:**
  - Home visiting not a substantial program element
  - Not an eligible study design
  - Target population out of range
  - No eligible outcomes
  - Did not study a named program model
  - Not published in English
  - Published before 1979

HomVEE found more than 250 potential home visiting program models, including nearly 150 with at least one eligible randomized controlled trial (RCT) or quasi-experimental design (QED).

Step 3: Prioritize Models for Review

- **We prioritized models based on:**
  - **Number and design of causal studies**
  - **Sample sizes of causal studies**
  - **Availability of implementation information**
- **We eliminated models based on the following:**
  - **Implemented only in a developing world context**
  - **No longer implemented and no support available for implementation**
- **We added one model due to its prevalence of implementation.**

Program Models Prioritized for Review

- **We prioritized 11 program models for review:**
  - **Early Head Start-Home Visiting**
  - **Family Check-Up**
  - **Healthy Families America (HFA)**
  - **Healthy Start-Home Visiting**
  - **Healthy Steps**
  - **Home Instruction for Parents of Preschool Youngsters (HIPPY)**
  - **Nurse Family Partnership (NFP)**
  - **Parent-Child Home Program**
  - **Parents as Teachers (PAT)**
  - **Resource Mothers Program**
  - **SafeCare**

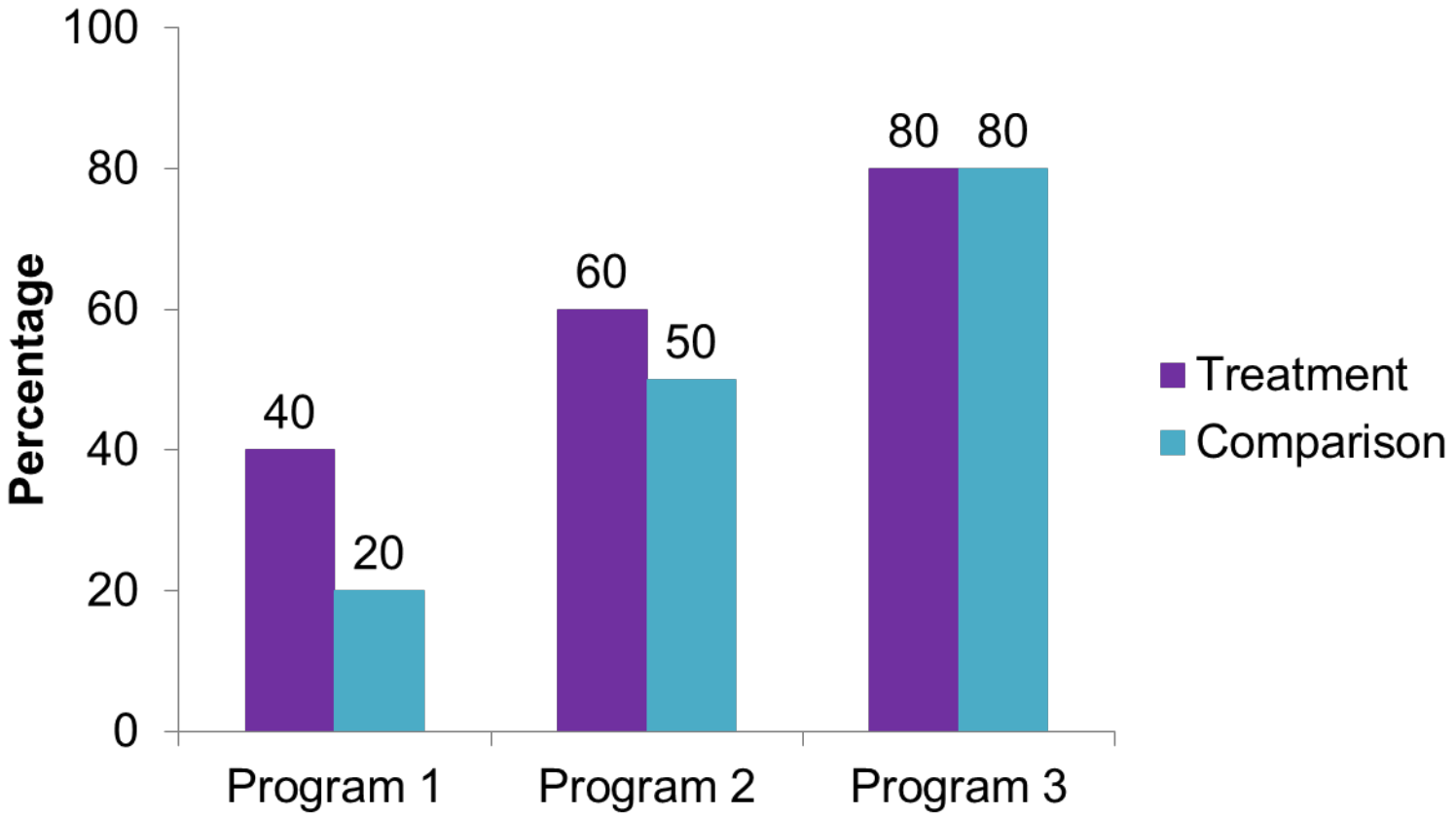
Step 4: Rating Study Quality

We reviewed studies that used a comparison condition.

- **Randomized controlled trials (RCTs)**
- **Quasi-experimental designs (QEDs)**
  - **Matched comparison designs**
  - **Single case designs (SCDs)**
  - **Regression discontinuity designs (RDs)**

HomVEE reviewed more than 160 impact studies.

Without Comparisons, Results May Be Misleading



Without a comparison, Program 3 might appear to be the most effective.

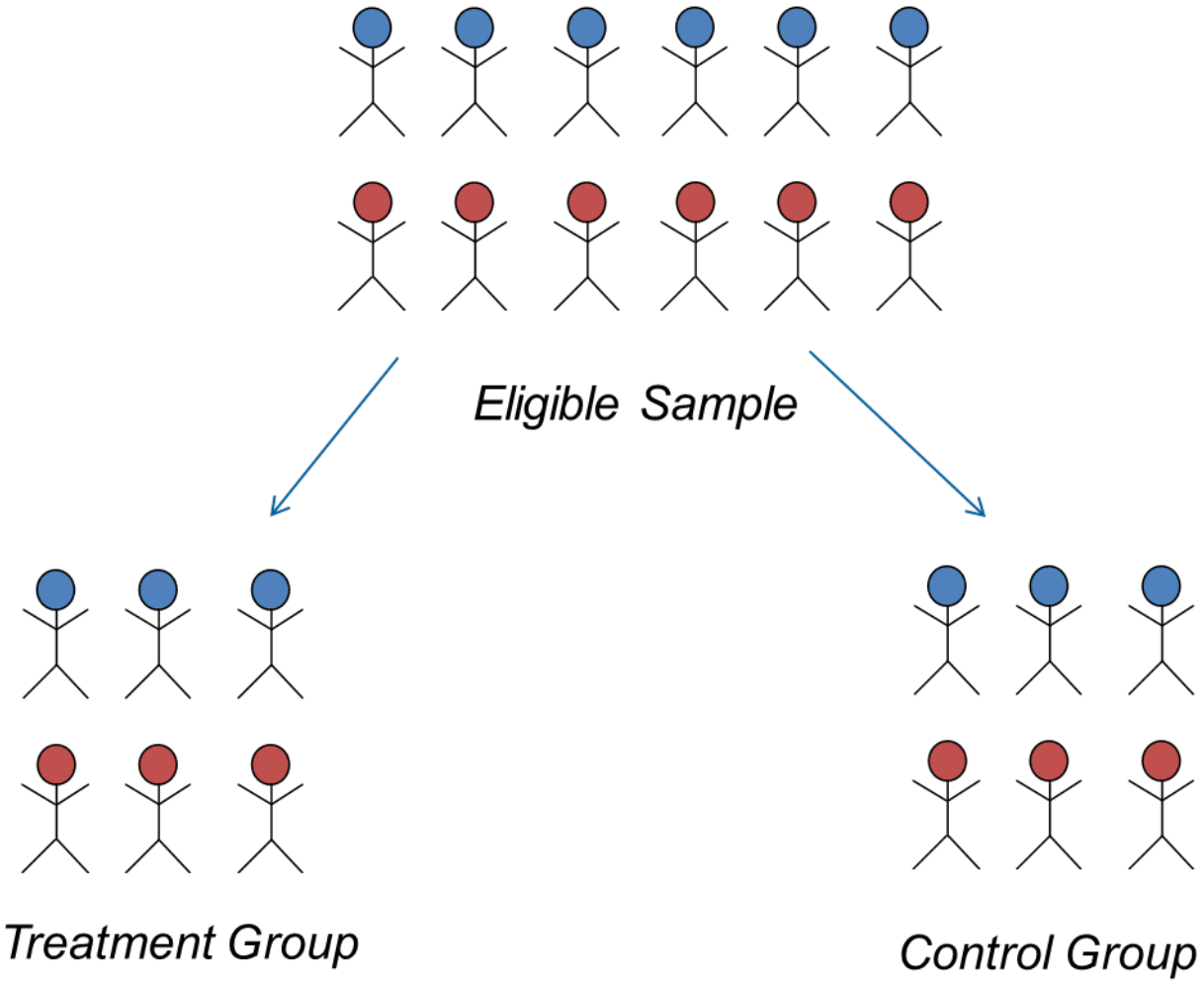
HomVEE Study Ratings

- **Eligible studies were assigned a rating based on the study's ability to provide credible estimates of a program model's impact.**
  - **HomVEE ratings: High, Moderate, or Low**
- **The study rating is a measure of the study's quality, not program effectiveness.**

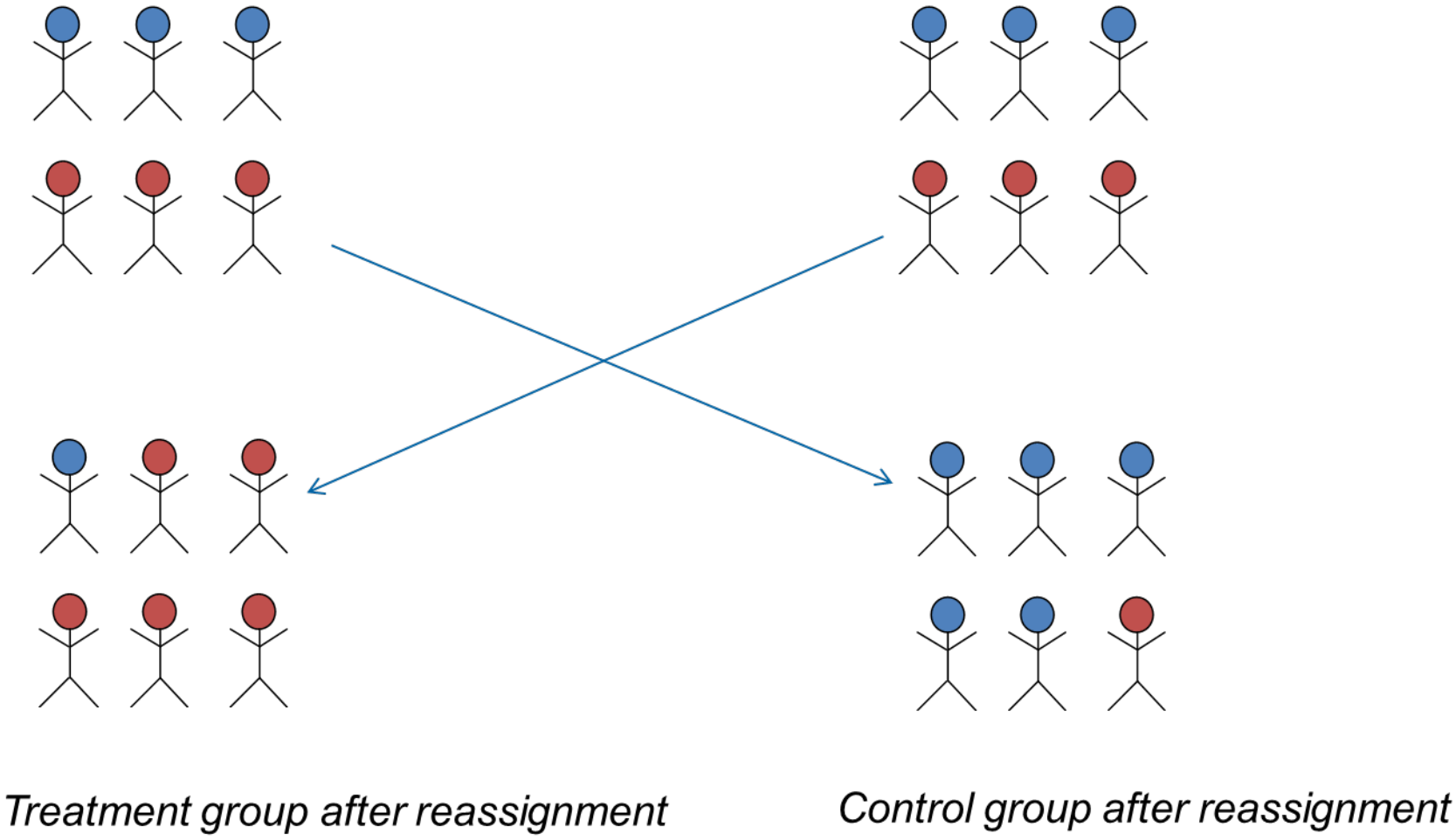
High Study Rating

- **Indicates that the study has a strong ability to estimate unbiased impacts**
- **RCTs with no substantial problems**
  - **No reassignment**
  - **Low attrition**
  - **No confounding issues**
- **SCDs and RDs that met WWC standards**
  - **The What Works Clearinghouse (WWC), established by the Institute for Education Sciences, reviews education research.**

Randomization Produces Similar Groups



Reassignment Can Create Dissimilar Groups

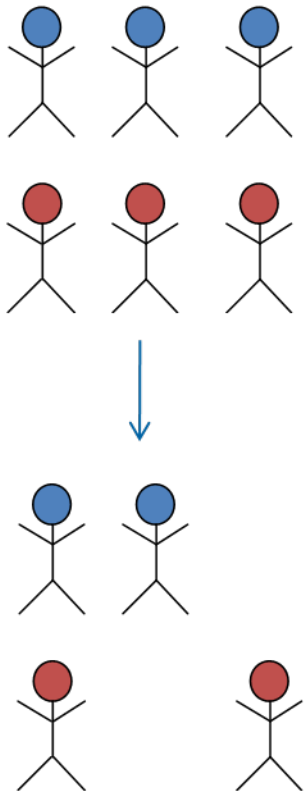


Treatment group after reassignment

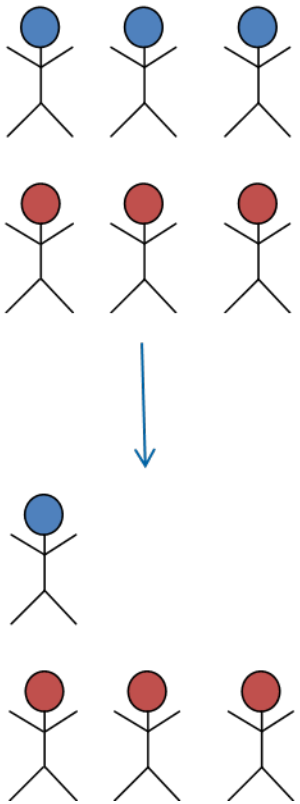
Control group after reassignment

Attrition Can Affect Sample Composition

Treatment Group

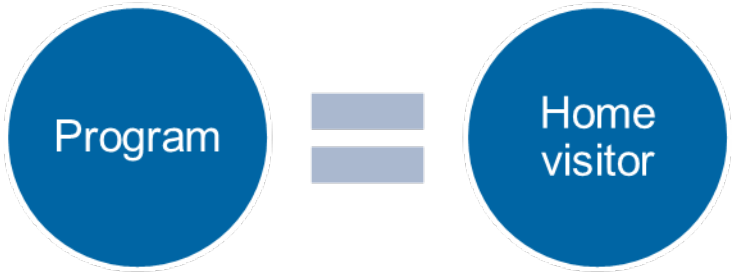


Comparison group



Even if groups are initially equivalent, the loss of respondents may create dissimilar groups.

Program Effects Cannot Be Isolated from Confounding Factors



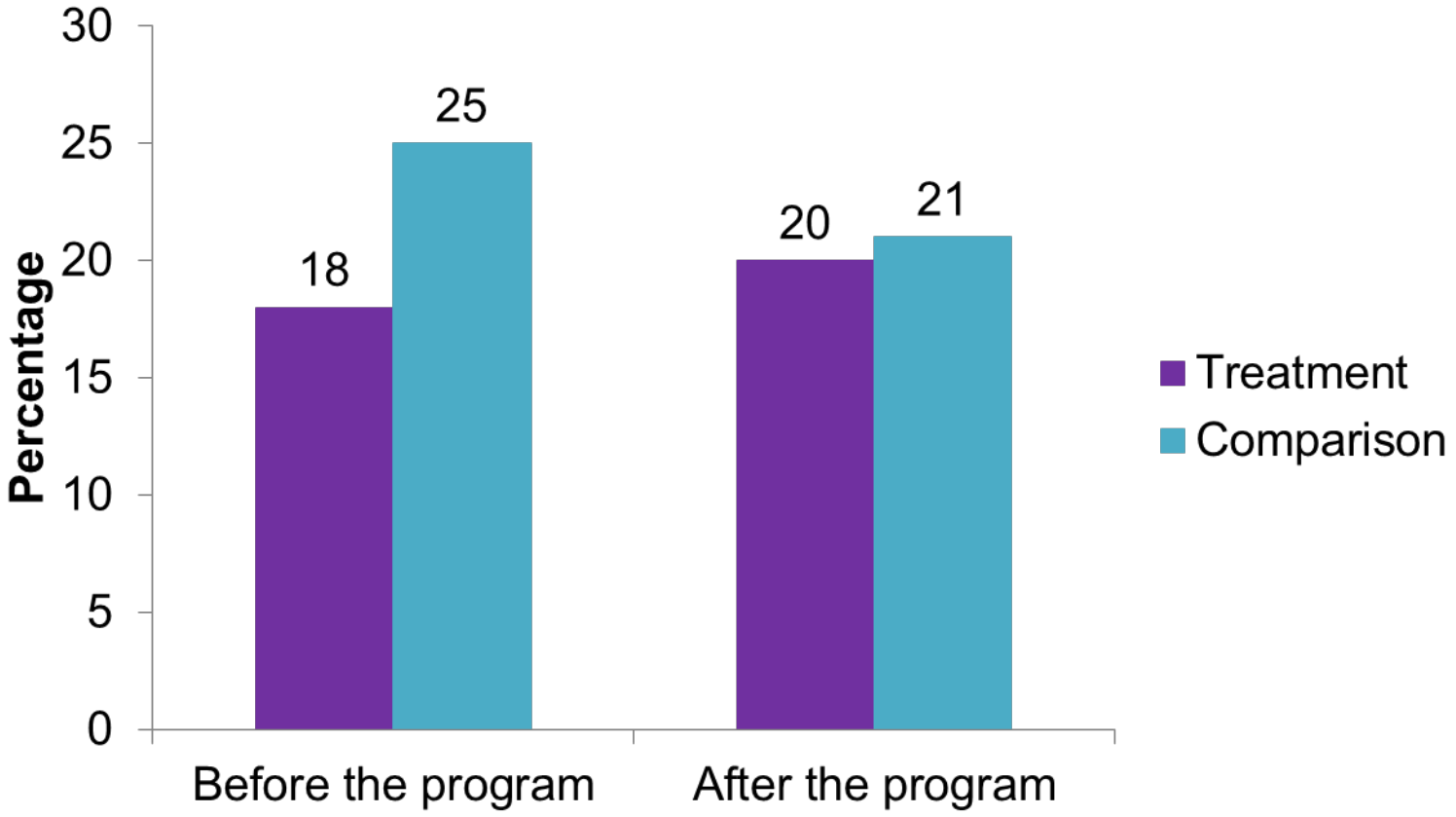
There is a confound between the program and home visitor.

Program is implemented by multiple home visitors.

Moderate Study Rating

- Indicates some uncertainty about the study's ability to estimate unbiased impacts
- RCTs with problems, such as high attrition, or QEDs with matched comparison groups
  - To receive a moderate rating, baseline equivalence had to be established.
- SCDs and RDs that met WWC standards with reservations

Without Baseline Equivalence, Results Are Unclear



Percentages went up in the treatment group and down in the control group, but interpretation is unclear because the groups were different at baseline.

Low Study Rating

- **A low rating indicates a lack of confidence that the study can estimate unbiased impacts of the program's effects.**
- **Low quality studies may be any research design.**
  - **Do not meet standards for high or moderate ratings**

Step 5: Assess Evidence of Effectiveness

DHHS criteria for an "evidence-based early childhood home visiting service delivery model:"

- **At least 1 high- or moderate-quality impact study with favorable, statistically significant impacts in 2 or more of the 8 outcome domains, or**
- **At least 2 high- or moderate-quality impact studies (with non-overlapping analytic samples) with 1 or more favorable, statistically significant impacts in the same domain**

Step 5: Assess Evidence of Effectiveness *(cont.)*

- **Impacts must be either:**
  - **Found for the full sample**
  - **If found in subgroups only, be replicated in the same domain in 2 or more studies using non-overlapping samples**

- **Following the legislation, if evidence is from RCTs only:**
  - **At least 1 statistically significant, favorable impact must be sustained for at least 1 year after program enrollment**
  - **At least 1 statistically significant, favorable impact must be reported in a peer-reviewed journal**

Program Models that Met the DHHS Criteria

- Early Head Start-Home Visiting
- Family Check-Up
- Healthy Families America (HFA)
- Healthy Steps
- Home Instruction for Parents of Preschool Youngsters (HIPPY)
- Nurse Family Partnership (NFP)
- Parents as Teachers (PAT)

Other Dimensions of Evidence Examined

- Quality of the outcome measures
  - Primary, secondary
- Duration of impacts after the program ended
- Replication of impacts in another sample
- Magnitude of effects (effect size)
- Subgroup findings
- Unfavorable or ambiguous impacts
- No effect findings
- Independence of evaluators

Step 6: Reviewing Implementation Information

- **Extracted implementation information from all high- and moderate-quality impact studies and stand-alone implementation studies**
- **Reviewed implementation guidance and materials prepared by program model developers and purveyors**
- **Created detailed implementation profiles**
  - **Prerequisites, staff characteristics, training, materials and forms, costs, program contact information, implementation experiences**

Selecting an Evidence-Based Model

- SIR lists the 7 models determined to meet the evidence-based criteria.
- At least 75% of the funds must be utilized by grantees for evidence-based models.
- State may propose up to 25% of funds for promising approaches.

Adaptations

- **Acceptable adaptations are those not tested with rigorous research but are determined by the model developer *not to alter the core components related to program impacts.***
- **Changes that alter the core components will not be allowed under the funding of evidence-based models.**
- **Any proposed adaptations will be reviewed and approved by HHS during review of state plans.**
- **Adaptations that alter the core components may be funded with funds available for promising approaches.**

Requests for Models Not Reviewed by HomVEE

- The HomVEE review could not include reviews of all potential home visiting models in the time allowed.
- If a state would like to propose using a home visiting model not reviewed by HomVEE, the State must submit a proposal for selecting this alternative model to the HRSA project officer within 45 days of issuance of the SIR.

Requests for Models Not Reviewed by HomVEE *(cont.)*

- **The evidence base for the proposed model will be reviewed and a decision will be made whether the model meets the criteria within 45 days of receipt of the request for review.**
- **If the model is approved, the state must provide implementation information for the approved model within 30 days.**

Requests for Models Not Reviewed by HomVEE *(cont.)*

- **A proposal for reviewing an alternative model must include:**
  - **The name of the model (and any other known previous names of the model)**
  - **Identify any affiliated organizations and researchers of the model**
  - **Provide copies of reports or journal articles for any known research on the model**
  - **Discuss how the proposed model meets the legislative requirement of:**
    - Being in existence for at least 3 years
    - Grounded in relevant empirically based knowledge
    - Linked to program-determined outcomes
    - Associated with a national organization or institution of higher education
    - Has comprehensive home visiting program standards that ensure high quality service delivery and continuous quality improvement

Requests for Reconsideration of Evidence Determinations

- If states, researchers, model developers, or others believe the application of the HHS criteria for a particular model contains one or more errors and that, if these errors were addressed, the model would meet the evidence criteria, those concerns should be submitted to: HVEE@mathematica-mpr.com
- Inquiries will be accepted only through this email address.
- Requests for re-review may be based on:
  - Misapplication of the HHS criteria
  - Missing information
  - Errors in the HomVEE website

Requests for Reconsideration of Evidence Determinations *(cont.)*

- To ensure independence from the original review, the re-review team will be external to the original contractor.
- The re-review team will provide assurances they are free from actual or perceived conflicts of interest.
- The re-review team will be trained and certified in HomVEE standards.
- The re-review team will use the empirical articles from the original review, any information submitted with the request for re-review, and will make any necessary queries to the original review team.

Requests for Reconsideration of Evidence Determinations *(cont.)*

- **HHS will issue a final decision within 45 days of the submission of the request for review.**
- **If the model is approved as meeting the criteria, a state wishing to implement this model must submit an Updated State Plan within 30 days.**

Notification of Decisions

- **All states will be notified of any decisions regarding re-review or reviews of alternate models.**

Continuing the Review

- **Literature Review**
  - Is now underway using the same procedures
- **Call for Studies 2011**
  - Is now open
  - The Call will be disseminated through listservs
  - The Call can be found on the HomVEE website
- **Aimed at identifying studies not previously reviewed**
- **Screening criteria are the same as for first review of the evidence**

Continuing the Review

- **Authors may submit new evidence or findings that build on or expand previously reviewed studies**
  - **Must be written as new, stand-alone paper**
- **Submissions due April 15, 2011 to:**

HVEE@mathematica-mpr.com

Products of the Review

- **Program Model Reports**
  - Present evidence of effectiveness from all studies reviewed
- **Outcome Domain Reports**
  - Present evidence of effectiveness across programs for outcomes in a particular domain
- **Implementation Profiles**
  - Describes implementation requirements, training and TA resources, and implementation experiences
- **Tribal Evidence Memo**
  - Focuses on implementation issues

Questions?

- Send us your questions during the webinar
- Submit questions on the HomVEE website, Help tab, Contact Us page

http://homvee.acf.hhs.gov