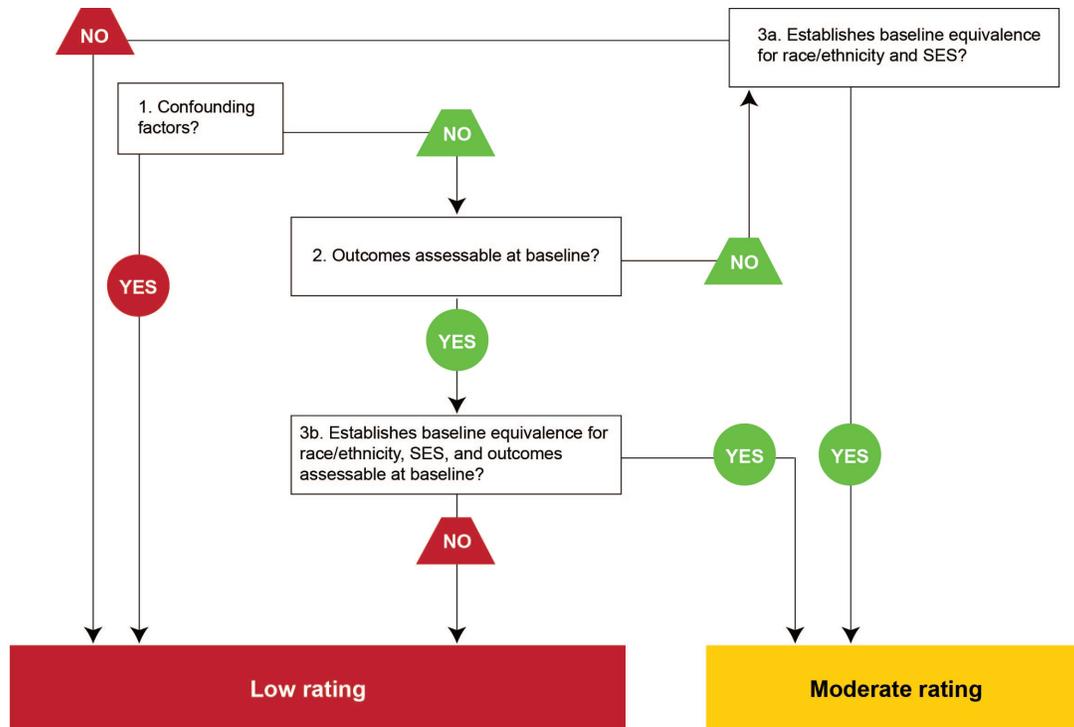




Home Visiting Evidence of Effectiveness Standards for Non-experimental Comparison Group Designs

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SES = Socioeconomic status.

Note: Establishing baseline equivalence requires that the effect sizes of the baseline differences between the intervention and the comparison group on race/ethnicity and socioeconomic status (steps 3a and 3b) and outcomes assessable at baseline (step 3b) are either (1) lower than or equal to 0.05, or (2) greater than 0.05 and lower than or equal to 0.25, and the analyses adjust for these baseline variables (race/ethnicity, socioeconomic status, and baseline outcomes when assessable). To receive a rating of moderate, the research under review must also have at least one finding that is based on an eligible outcome and that meets the validity and reliability requirements described in Section III.B.4 of the HomVEE Procedures and Evidence Standards: Version 2. Additionally, if findings are based on imputed missing outcome data, they must meet additional requirements, as described in Appendix E. Source: HomVEE Handbook of Procedures and Evidence Standards: Version 2. Available at <https://homvee.acf.hhs.gov/publications/methods-standards>.

Flowchart definitions for non-experimental comparison group designs

Confounding factors: Confounding factors occur when an element of the research design or methods, other than the model of interest, is associated with only the intervention or only the comparison group. This additional element, that is in addition to the intervention, creates a difference between the intervention and comparison groups that makes it impossible to isolate the impact of the intervention from that of the confounding factor. A confounding factor is any observed element that is completely aligned with either the intervention or comparison group. This means, the factor is present in only the intervention group or only the comparison group, but not in both. For example, if a single home visitor administers all of the intervention services but none of the comparison services, it is impossible to distinguish the effect of that home visitor from the effect of the intervention. Confounding factors may also arise from systematic differences in the way data are collected for the intervention group versus the comparison group. For example, if program staff collected data from all participants in the intervention group, but data for the comparison group came from an administrative data set, the difference in data collection approach would be considered a confounding factor.

Assessable at baseline: Outcomes that are assessable at baseline can be measured before the intervention begins. For example, a mother's health insurance status or a family's receipt of services can be measured at baseline. Some outcomes cannot be assessed at baseline, such as infant mortality for programs delivered during pregnancy.

Baseline equivalence: Baseline equivalence means that the intervention and comparison groups are statistically equivalent on specified characteristics before the intervention begins. Establishing baseline equivalence supports conclusions the intervention alone, and not preexisting differences between the intervention and comparison groups, led to any observed difference in outcomes. HomVEE requires all NED research to establish baseline equivalence for race/ethnicity, SES, and any outcomes that are assessable at baseline. HomVEE assesses baseline equivalence by comparing intervention and comparison groups for each variable based on *effect size*.

An effect size is the difference in between the groups in standardized units that are comparable across variables. When that difference between the groups is less than or equal to 0.05, HomVEE concludes that the study meets the baseline equivalence requirement and no statistical adjustments are required. However, if that baseline difference is greater than 0.05 and less than or equal to 0.25, HomVEE requires that a statistical adjustment be performed in order to meet the baseline equivalence requirement. For an effect size greater than 0.25, the research does not meet the baseline equivalence requirement. (Please see the HomVEE Handbook of Procedures and Evidence Standards: Version 2 for more information on requirements around statistical adjustment.)

Race/ethnicity: HomVEE requires NED research to demonstrate baseline equivalence on race/ethnicity. HomVEE generally accepts author-reported race/ethnicity categories. Baseline equivalence must be established across all race/ethnicity categories reported by the authors. Although HomVEE would prefer that race/ethnicity is reported for parents and for children in the sample, HomVEE will accept the race/ethnicity measure of one generation of the family as a proxy for the other generation if the parent and child are biologically related and if the author did not measure race/ethnicity for both generations.

Socioeconomic status (SES): HomVEE requires NED research to demonstrate baseline equivalence of SES. HomVEE prefers that authors report specific economic well-being measures – income, earnings, maternal education, or poverty levels according to federal thresholds. However, HomVEE also accepts reports of employment of at least one member in the household or means-tested assistance measures, such as Temporary Assistance for Needy Families (TANF) or the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). If an NED provides at least two such alternative measures of SES, the alternative measures can potentially demonstrate baseline equivalence for SES. In contexts outside of the United States, other measures of economic well-being may be considered.