Risk of Bias (RoB) Assessment QC Guidance

The quality control (QC) process is an important step in conducting a systematic literature review. At the risk of bias assessment step, a 100% QC of the completed assessments for each included study should be performed. This means every study assessment is conducted by one reviewer, then evaluated by a final reviewer. The QC process ensures that the study quality appraisal is rigorous and replicable. The following process should be utilized to perform the QC:

- 1. Have the following documents available for each study:
 - a. The study document (report, publication)
 - b. The inclusion/exclusion (PECOS) criteria
 - c. The RoB assessment tool and judgment criteria for each domain and overall study quality rating
 - d. The individual reviewer's RoB assessment will be available in the final reviewer's form in HAWC
- 2. Review each study, then evaluate the assessment for each following the RoB tool guidance.
 - a. As the final reviewer evaluates the assessment, keep the inclusion criteria in mind to quickly check that the criteria have been met. If there is a question of a study's eligibility to be included, alert the review team and discuss.
 - b. The final reviewer should document their notes for each domain as they move through the RoB form. Include agreements and disagreements with the individual reviewer for each domain rating as well as the overall rating in the assessment notes. If needed, paste the individual reviewer's notes and then identify any discrepancies in findings. Also add any supporting evidence to ensure the final review contains all justification from both the individual and final reviewers.
 - c. If the answer for an individual question differs, but does not affect the outcome, the final reviewer may use discretion as to whether further deliberation is necessary.
- 3. Any discrepancies between the reviewers should be discussed between reviewers to arrive at a consensus rating for each domain.
 - a. A senior reviewer should resolve any conflicts.
 - b. Document these decisions in the assessment notes.
 - c. It is especially important to consider and discuss decisions that would exclude a study from further consideration (critically deficient rating in any domain).
- 4. The final reviewer should then make any agreed upon changes to their assessment in HAWC based on the discussion and final determinations from the previous step. The final reviewer's RoB will be used by HAWC for visualizations.