

## Appendix D

### Evidence Level and Quality Guide

| Evidence Levels   | Quality Ratings  |
|---|--|
| <p><b>Level I</b></p> <p>Experimental study, randomized controlled trial (RCT)</p> <p>Explanatory mixed method design that includes only a level I quantitative study</p> <p>Systematic review of RCTs, with or without meta-analysis</p>   | <p><b><u>Quantitative Studies</u></b></p> <p><b>A High quality:</b> Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence.</p> <p><b>B Good quality:</b> Reasonably consistent results; sufficient sample size for the study design; some control, fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence.</p> <p><b>C Low quality or major flaws:</b> Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.</p>  |
| <p><b>Level II</b></p> <p>Quasi-experimental study</p> <p>Explanatory mixed method design that includes only a level II quantitative study</p> <p>Systematic review of a combination of RCTs and quasi-experimental studies, or quasi-experimental studies only, with or without meta-analysis</p>  | <p><b><u>Qualitative Studies</u></b></p> <p>No commonly agreed-on principles exist for judging the quality of qualitative studies. It is a subjective process based on the extent to which study data contributes to synthesis and how much information is known about the researchers' efforts to meet the appraisal criteria.</p> <p><i>For meta-synthesis, there is preliminary agreement that quality assessments of individual studies should be made before synthesis to screen out poor-quality studies<sup>1</sup>.</i></p> <p><b>A/B High/Good quality</b> is used for single studies and meta-syntheses<sup>2</sup>.</p> <p>The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:</p> <ul style="list-style-type: none"> <li>• Transparency: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.</li> <li>• Diligence: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.</li> <li>• Verification: The process of checking, confirming, and ensuring methodologic coherence.</li> <li>• Self-reflection and scrutiny: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.</li> <li>• Participant-driven inquiry: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.</li> <li>• Insightful interpretation: Data and knowledge are linked in meaningful ways to relevant literature.</li> </ul> |
| <p><b>Level III</b></p> <p>Nonexperimental study</p> <p>Systematic review of a combination of RCTs, quasi-experimental and nonexperimental studies, or nonexperimental studies only, with or without meta-analysis</p> <p>Exploratory, convergent, or multiphase mixed methods studies</p> <p>Explanatory mixed method design that includes only a level III quantitative study</p> <p>Qualitative study Meta-synthesis</p> | <p><b>C Low quality</b> studies contribute little to the overall review of findings and have few, if any, of the features listed for high/good quality.</p>  |

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|--|---|
| <p><b>Level IV</b></p> <p>Opinion of respected authorities and/or nationally recognized expert committees or consensus panels based on scientific evidence</p> <p>Includes:</p> <ul style="list-style-type: none"> <li>• Clinical practice guidelines</li> <li>• Consensus panels/position statements</li> </ul>   | <p><b>A High quality:</b> Material officially sponsored by a professional, public, or private organization or a government agency; documentation of a systematic literature search strategy; consistent results with sufficient numbers of well-designed studies; criteria-based evaluation of overall scientific strength and quality of included studies and definitive conclusions; national expertise clearly evident; developed or revised within the past five years</p> <p><b>B Good quality:</b> Material officially sponsored by a professional, public, or private organization or a government agency; reasonably thorough and appropriate systematic literature search strategy; reasonably consistent results, sufficient numbers of well-designed studies; evaluation of strengths and limitations of included studies with fairly definitive conclusions; national expertise clearly evident; developed or revised within the past five years</p> <p><b>C Low quality or major flaws:</b> Material not sponsored by an official organization or agency; undefined, poorly defined, or limited literature search strategy; no evaluation of strengths and limitations of included studies, insufficient evidence with inconsistent results, conclusions cannot be drawn; not revised within the past five years</p>   |
| <p><b>Level V</b></p> <p>Based on experiential and nonresearch evidence</p> <p>Includes:</p> <ul style="list-style-type: none"> <li>• Integrative reviews</li> <li>• Literature reviews</li> <li>• Quality improvement, program, or financial evaluation</li> <li>• Case reports</li> <li>• Opinion of nationally recognized expert(s) based on experiential evidence</li> </ul> | <p><b>Organizational Experience (quality improvement, program or financial evaluation)</b></p> <p><b>A High quality:</b> Clear aims and objectives; consistent results across multiple settings; formal quality improvement, financial, or program evaluation methods used; definitive conclusions; consistent recommendations with thorough reference to scientific evidence</p> <p><b>B Good quality:</b> Clear aims and objectives; consistent results in a single setting; formal quality improvement, financial, or program evaluation methods used; reasonably consistent recommendations with some reference to scientific evidence</p> <p><b>C Low quality or major flaws:</b> Unclear or missing aims and objectives; inconsistent results; poorly defined quality improvement, financial, or program evaluation methods; recommendations cannot be made</p> <p><b>Integrative Review, Literature Review, Expert Opinion, Case Report, Community Standard, Clinician Experience, Consumer Preference</b></p> <p><b>A High quality:</b> Expertise is clearly evident; draws definitive conclusions; provides scientific rationale; thought leader(s) in the field</p> <p><b>B Good quality:</b> Expertise appears to be credible; draws fairly definitive conclusions; provides logical argument for opinions</p> <p><b>C Low quality or major flaws:</b> Expertise is not discernable or is dubious; conclusions cannot be drawn</p> |

1 [https://www.york.ac.uk/crd/SysRev/ISSI/WebHelp/6\\_4\\_ASSESSMENT\\_OF\\_QUALITATIVE\\_RESEARCH.htm](https://www.york.ac.uk/crd/SysRev/ISSI/WebHelp/6_4_ASSESSMENT_OF_QUALITATIVE_RESEARCH.htm)

2 Adapted from Polit & Beck (2017).