Reviewing and Interpreting Bodies of Evidence for Preparing Practice Recommendations

Ian Askew
Co-Director, STEP UP Consortium
Population Council
Nairobi, Kenya

HIP Technical Advisory Group Meeting
6 – 7th June, 2013
UNFPA, New York
What types of evidence / knowledge to include in a review?


Consider also:
- “Practice enquiry”
- Economic consequences
The key characteristics of a **systematic** review are:

- A clearly stated set of objectives with pre-defined eligibility criteria for including studies;
- An explicit, reproducible methodology;
- A systematic search that attempts to identify all studies that would meet the eligibility criteria;
- An assessment of the validity of the findings of the included studies;
- A systematic presentation, and synthesis, of the characteristics and findings of the included studies.

(Cochrane Review)
Systematic review process

- **Step 1:** Initiate the process:
- **Step 2:** Develop the review protocol:
- **Step 3:** Systematically locate, screen, and select the studies for review
- **Step 4:** Appraise the risk of bias in the individual studies and extract the data for analysis
- **Step 5:** Synthesize the findings and assess the overall quality of the body of evidence
- **Step 6:** Prepare a final report and have the report undergo peer review

Criteria when assessing the overall strength of a body of evidence

- Size of the body of evidence
- Context and specificity of the evidence
- Quality of individual studies
- Consistency of the findings
## Categorizing the strength of evidence

<table>
<thead>
<tr>
<th>Categories of Evidence</th>
<th>Combinations of Criteria</th>
<th>Body of Evidence includes…</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Very Strong</strong></td>
<td>High quality body of evidence, large in size, consistent, and closely matched to the specific context of the intervention</td>
<td>Studies based on experimental designs (including impact evaluations), as well as systematic reviews and/or meta-analysis</td>
</tr>
<tr>
<td><strong>Strong</strong></td>
<td>High quality body of evidence, large or medium in size, generally consistent, and matched to the specific context of the Intervention</td>
<td>Experimental or quasi-experimental designs, observational research designs that attempt counterfactual analysis, systematic reviews.</td>
</tr>
<tr>
<td><strong>Medium</strong></td>
<td>Moderate quality studies, medium size evidence body, generally consistent, which may or may not be relevant to the intervention. Limited number of high quality studies.</td>
<td>Multiple designs, but which have been assessed as being of moderate quality. The studies do not offer robust findings that can be derived and replicated across a range of contexts.</td>
</tr>
<tr>
<td><strong>Limited</strong></td>
<td>Moderate or low quality studies, small or medium size body, inconsistent, not matched to intervention</td>
<td>Varied designs and methodologies, which do not meet minimum standards. Includes causal inference from single case studies in limited contexts, and cross-sectional analysis without baseline data.</td>
</tr>
</tbody>
</table>

Using evidence to develop practice recommendations

- GRADE emphasizes importance of separating quality of evidence from strength of recommendation

  - Strong recommendation for / against

  - Conditional recommendation
    - Unanswered questions relating to effectiveness, safety, feasibility, acceptability: "with rigorous research"
    - Uncertainties about the intervention in certain conditions or contexts or populations: "with targeted M&E"
Key issues

- Agreeing on types of knowledge to include and exclude
- Agreeing on standards for a process of reviewing bodies of evidence
- Hierarchy or matrix of evidence
- Deriving strength of recommendation from quality of evidence
- Terminology for describing evidence quality and strength of recommendation
  - Messaging, especially for “conditional” recommendations
The **STEP UP (Strengthening Evidence for Programming on Unintended Pregnancy) Research Programme Consortium** is coordinated by the Population Council in partnership with the African Population and Health Research Center; icddr,b; the London School of Hygiene and Tropical Medicine; Marie Stopes International; and Partners in Population and Development. STEP UP is funded by UK aid from the UK Government.