IDENTIFYING AND REVIEWING EVIDENCE TO CONCEPTUALISE COST-EFFECTIVENESS MODELS AND INFORM MODEL INPUTS

Recommendations from Technical Support Document 13

Problem-oriented conceptual models represent the system in which the problem exists by mapping out the disease and treatment pathways. Design-oriented models represent the proposed plan of the model structure, taking into account the available evidence. Both types of conceptual model help to ensure that the problem is fully understood.

Problem-oriented conceptual models:

- Develop the structure using clinical guidelines and experts
- Use other clinical experts to provide peer review
- Ensure the graphical approach for presenting the model is easily understood
- Consider using diagrammatic and textual forms using non-technical language
- Do not let the feasibility and acceptability of the design-oriented model influence this stage

Design-oriented conceptual models:

- Develop this model before developing the quantitative model, but use an iterative process to modify it
- Document and report key decisions where the implemented model differs from the problem-oriented models or where several choices exist but none are clearly superior
- Clearly report the sources of evidence and methods of elicitation that inform the model
- Test alternative model development choices where possible

Identifying evidence:

- Be systematic and explicit in seeking information
- Be transparent in identifying and selecting evidence
  - Report search strategies
  - Audit identification of individual sources
  - Report alternative sources
  - Assess impact of limitations
- Consider techniques for searching to maximise the rate of return
  - Justify the use of these techniques
  - Consider implication of potentially missing data
- Transparently report decisions relating to prioritisation and judgements

Reviewing evidence:

- Prioritise reviews around important parameters, noting these may change as the model is developed
- Clearly report study selection processes
- Consider the balance of relevance and study quality in selecting evidence
- Carefully consider sources of biases in model sensitivity analysis where possible
- Document changes to evidence needs set out at the beginning of the reviewing process
- Report methods for review in detail where evidence is weak or there is no clearly superior study