

## Implications for research

Implications for research should be specific and they should be justified; i.e. what specific uncertainty should be addressed, and how and why addressing that uncertainty is important for people making decisions about an intervention (or how to address a problem) and key stakeholders. Statements such as “More research is needed” are unhelpful and should not be made.

The following reasons for uncertainty regarding the review findings can help to guide the types of research that might be needed:

<i>Consider by outcome for each of the most important outcomes</i>	<i>Possible implications for research</i>
Study design	Need for randomised trials, if appropriate
Risk of bias	Need for better designed and executed studies
Inconsistency	Unexplained inconsistency: need for individual participant data meta-analysis or for studies in relevant subgroups
Indirectness	Need for studies that directly address the question of interest; i.e. the population(s) of interest, the intervention(s) of interest, the comparison (s) of interest, the outcomes of interest and the duration of follow-up of interest
Imprecision	Need for more studies with more participants
Publication bias	Need to investigate and identify unpublished data or for large studies

In describing specific types of research that are needed to address important uncertainties identified through the approach described above, review authors should consider the following for research that addresses the effects of interventions:<sup>1</sup>

- **E** Evidence (What is the current state of the evidence?)
- **P** Population (What is the population of interest?)
- **I** Intervention (What are the interventions of interest?)
- **C** Comparison (What are the comparisons of interest?)
- **O** Outcome (What are the outcomes of interest?)

In addition, they should consider: What is the most appropriate study design to address the question?

Where a review is empty, or includes very few studies, review authors may also find it useful to apply the EPICO(T) framework above to the different types of interventions that the review considered (but for which the review did not find evidence). If a logic model or framework was described in the

<sup>1</sup> Brown P, Brunnhuber K, Chalkidou K, Chalmers I, Clarke M, Fenton M, et al. How to formulate research recommendations. *BMJ* 2006; 333:804-6.

Background section under 'How the intervention might work' or in the Discussion section, this might also provide a starting point for applying the EPICO(T) approach.

Questions that are not about the effects of interventions may also be important to address to inform decisions about health system interventions. For example, questions about feasibility or acceptability may be important, or questions about the economic consequences of an intervention. If review authors have not systematically reviewed the current state of the evidence for such questions, they should avoid making assumptions about the current state of research in their implications for research.

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