Author's response to reviews

Title: A rapid review of economics methods in Cochrane systematic reviews relevant to health promotion and public health

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Author's response to reviews: see over
Dear Editors

On behalf of the co-convenors of the Campbell & Cochrane Economics Methods Group, I am pleased to resubmit the manuscript of a research article ‘A rapid review of economics methods in Cochrane systematic reviews relevant to health promotion and public health’ for publication in *BMC Medical Research Methodology*.

The manuscript has been revised to take into account the further peer review comments from James Raftery. In particular, we have added new text into both the ‘introduction’ and ‘discussion’ sections (pp. 5 & pp. 21) which we feel directly addresses James’ main point, which asked for commentary on the value of locating economics studies in systematic reviews which show no difference between comparator interventions in terms of effectiveness. A point-by-point response to James’ comments is provided below.

We have submitted two versions of the revised manuscript. The second, uploaded to the ‘additional material files’ box is identical to the first (‘main manuscript’) but shows the substantive changes we have made since the last submitted version (using ‘tracking’).

As at the time we first submitted the manuscript, it has not previously been published in another journal and the authors have no financial or other relationships to declare that may lead to a conflict of interest. The final manuscript has been read and approved by all authors. I am the corresponding author and have signed below on behalf of all authors.

We look forward to a final decision regarding publication of the study in due course.

Yours sincerely,

Ian Shemilt

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Point-by-point response to further peer review comments

The main point raised in the peer review comments is to question the value of locating economics studies in systematic reviews which show evidence of no difference between comparator interventions in terms of effectiveness. This is now specifically addressed in the revised discussion (pp. 21) (although none of the reviews included in our study show evidence of no difference (primary outcomes) - of twenty-one included reviews, six show evidence of effectiveness, whilst the other fifteen show either: no evidence, no clear evidence, weak evidence, evidence of mixed effectiveness, or some evidence of ineffectiveness (pp. 16)). An intervention which shows no effect may still have important economic consequences and we would like to advise reviewers to consider the potential economic impact of the intervention when developing the review protocol (as for an RCT design). A further point, not explicitly made in the revised manuscript, is that Cochrane and other systematic reviewers clearly cannot make decisions about what to include in a review based on the findings of that review.

The revised manuscript also includes a more general discussion of the value of including a review of economics in Cochrane and other systematic reviews at various stages of knowledge about intervention effectiveness (including in a review where the results show evidence of no difference). This discussion reflects the following points:

- The relationship between expected changes in effects and costs determines the type and degree of added value from the intervention. Clearly if outcomes are improved or not changed and costs are reduced, a technology will be economically efficient. However, where there is likely to be a high overall cost of improving outcomes, decision makers will need to consider if this is the best use of resources. Finally where outcomes are actually worse as a result of a form of care, then the cost of changing practice to avoid that form of care also needs to be considered (c.f. pp. 5).
- At the point of planning a Cochrane review, it is likely that economic decisions are being, or have already been taken about the technology being studied. It therefore seems to the authors that there is likely to be additional value to end-users in a systematic review which refers to the existing economics evidence, whatever the current status of the effectiveness evidence (c.f. pp. 16).
- Our review was not intended to show that Cochrane reviews don't do economics in the right way, but an exploratory review to report what they have been doing already.
A further point made in the peer review comments is that it may be possible to conclude from our study that those reviews showing a difference in effectiveness between comparator interventions (primary outcomes) tend to include economics when compared to those reviews showing no difference. This pattern would make some sense in our view, in that reviews of interventions showing important effect differences may be more likely to include economics because the interventions have already attracted close policy and economic research attention, so that these reviews are more likely to encounter published economics studies. However, the conclusion is not supported by the evidence from our study. First, as mentioned above, none of the reviews included in our study show evidence of no difference. Secondly, 3 of 6 reviews which show evidence of effectiveness aim to include economics studies and data, compared to 7 of 15 reviews that do not - a similar proportion within the two groups (albeit with small sample sizes).

Finally, the comments suggest that the ‘conclusions’ section calls for guidance without giving a clear indication of what that guidance might be. We have sought to address this by briefly outlining some examples of the content of such guidance (pp.21-22). CCEMG is also currently finalising a new chapter on ‘incorporating economics methods’ to be published in the forthcoming updated version of the Cochrane Handbook for Systematic Reviews of Interventions.