Author’s response to reviews

Title: Producing Cochrane Systematic Reviews - a qualitative study of current approaches and opportunities for innovation and improvement

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Author’s response to reviews:

Thank you very much for this helpful feedback. We have revised the manuscript in response, and believe that it is stronger as a result. Our responses to your advice are in [parentheses]

Reviewer #1: Thank you for asking me to review this manuscript. The topic is of importance as high quality reviews are key to informing policy and practice yet the production of such reviews is not unproblematic. This paper reports on a study that explored experiences of the review process with a view to providing recommendations to improve the efficiency and sustainability of the process within the Cochrane model.

The authors state that the study used a mix of qualitative and quantitative methods yet the results only give the qualitative results in the form of themes from the interview responses. The authors suggest that interview data was initially analysed separately but combined with the survey data as the similarity of the themes became apparent. It is not really clear what the authors mean here or how the results from the survey allowed for the development of themes. Whilst it is not unusual for open ended questions in surveys to provide qualitative data, it would help if the authors were clearer regarding the nature of the survey data - for example how many and what questions were open ended and how many of the survey respondents actually provided free text responses?
The authors state that the survey data was to be analysed using simple descriptive statistics which suggests that the main part of the survey data was fixed response categories, no descriptive statistics were provided so it is unclear where the mix of qualitative and quantitative methods is in this manuscript. I would suggest that this manuscript could be strengthened by focusing solely on the interview study and reporting those results only. If the authors keep reference to the survey data then they need to provide much more detail as to what this data looks like and how it contributes to the thematic analysis.

It is difficult to make comment on the rigour of the qualitative methods as there is little detail of this in the methods section. I recognise that word constraints are an issue but it would be helpful to give some indication of for example: the key areas/questions in the interview schedule (how different are these to the themes uncovered; were the interviews recorded and transcribed (the authors make reference to interview notes yet use participant quotes); were any quality checks of the analysis undertaken (for example checking of codes/themes by more than one researcher); did the authors use any particular approach to the thematic analysis.

In the reporting of the themes it was sometimes unclear if some sections came from the interview responses or were just general information provided by the authors from their knowledge of the Cochrane process. For example lines 164 to 171.

I think it would help in the conclusions if the authors drew out the key learning for the production of all reviews and those that are limited to the Cochrane model.
Reviewer #2: Thanks for the chance to comment on this paper. This is an important topic on the elements involved on the production and editorial processes of research, specifically around systematic reviews. Although specific to the Cochrane Collaboration, it is probably relevant to other producers of knowledge synthesis. Congratulations to the authors to bring such important but usually neglected topic to the science arena.

The authors made a commendable job on trying to include on the paper as much information as possible. Unfortunately, that comes with a cost of neglected reporting of important methodological features. There are also some elements that could help improve the reach or conclusions of the materials.

- The most important comment is the lack of any formal results of the survey. All the results presented seems to come from the interviews. Dividing the results on a section for the survey and a section from the interviews, as it is done on the methods, will help. Alternatively, the paper can focus on the interviews as they can probably stand by themselves.

[Information clarifying that the included survey data was qualitative has been added to the methods section.]

- The link to additional data is not working. That makes difficult to check on the decisions made for coding on emerging themes.

[Not sure what link this is referring to?]

- Theme selection: The reporting quotes support the themes suggested, but one might argue a particular quote relates more to an undetected theme. Obviously, this is an inherent problem of qualitative research (different coders might reach to different themes) but there are no explanation on the efforts made by the authors to triangulate their decisions. Getting feedback from the interviewees on the decision of aligning quotes from themes might help. Alternatively or complementary to the above, an additional person can do some theme assignment on the most significant interviews for each of the stakeholders identified. That might enrich the analysis and provide better depth to the analysis.

[Further information describing the approach, feedback from interviewees and involvement of other authors in interpretation has been added to the methods section, see lines 162-165.]

- Conclusion vs discussion: the paper jumps from results to conclusion, without an attempt to interpret the findings. Conclusions from qualitative studies are always dangerous. I think that could be solved by labeling the section as discussion and avoid making conclusions and
focusing on interpreting the data from their research team lens. Getting the thoughts on the implications of some of the themes identified, how they will fit in the current structure and if relevant identifying barriers or potential adverse events from the suggestions made it will be more interesting, from my perspective, than trying to reach conclusions.

[Agreed, we have relabelled the sections and added additional information on how these findings are being taken up within Cochrane in lines 568-572.]

- Thanks for providing a reporting guideline for interviews. I will strongly suggest that authors pass the checklist to the paper before being accepted. It is possible some of this information is addressed on the additional materials: if that's the case, it will be important to explicitly indicate so in the published paper. Items 4, 13, 14, 15, 18, 19, 21, 22, 23, 24, 28 did not seem to be reported, and many others might benefit from additional explanation. As mentioned before, the feedback from participants is the most crucial aspect: many of the others require only to provide additional explanation in the paper: alternatively, can be added to an additional material but reader should be prompted to it from the methods section.

[We hope that the substantial improvements to the methods section will have addressed these concerns.]

- For the background, I think it will be important to set up in the paper in the context of the research or knowledge we have on the topic; I assume they did a systematic review of the previous work before starting the project and I suppose did not have enough space to report. Evidence in this area is at best scarce, and most is "expert opinion" or reports from group meetings, but it will be interesting to say if they did not identify anything. I'm not aware of specific work of scientific rigor, but at the very least it will be useful to situate the paper on previous analysis of the review process made at the organization level.

[We have added an additional paragraph to the Background section]

Reviewer #3: This is a valuable piece of research that covers the full breadth of activity in the production of a systematic review. The manuscript provides practical insights for the future production of Cochrane reviews.

Whilst the focus of the manuscript is (quite reasonably) on the production of Cochrane reviews, it is not clear how the responses of the 6 non-Cochrane interviewees have been incorporated. The manuscript describes how the emergent themes from the interviews and the survey converged, and were subsequently combined (lines 142-143). But this combining of data does not account
for any differences by respondent type. If there were in fact no differences in the concepts or themes raised by the non-Cochrane respondents (relative to the Cochrane respondents), it would be helpful if the manuscript states this explicitly.

[This information has been added to the results sections, lines 186-187.]

The quality of the language is high, and only the following minor edits are suggested:

- line 32: replace 'more than 100' with '106'
- line 312: change 'which are both responsible for both' to 'which are responsible for both'
- line 434: delete 'also'.

[Thank you, These changes have been made.]