Author’s response to reviews

Title: The macro-economic determinants of health and health inequalities - umbrella review protocol

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Author’s response to reviews:

We thank the reviewers for their helpful comments. We have addressed these comments as far as possible, with our responses to the comments in bulletpoints below.

Reviewer reports:

Reviewer #1: This is a well-written and thorough review protocol. The overall topic and results of this review will be of interest to researchers and policy makers alike.

I have a few minor suggestions for the authors:

1. line 110 -112: please explain this sentence in more detail, including specifically what the consequences are of the merger of socio-economic and environmental determinants into a single theory

   • We have substantially revised this sentence, replacing it with the following
The overall pattern is one where purely economic determinants are frequently conceptualized alongside other wider determinants of health (such as environmental and political determinants). This frame might have been too broad, thereby preventing the formation of a comprehensively structured schema of the Economic Determinants of Health. On the other hand, we recognize recent work to define narrower constructs, such as the Commercial Determinants of Health[21]. In our view, these could nonetheless be nested with a wider framework of Economic Determinants of Health, which we hope our review could inform.”

2. line 192-195: A bit more explanation is necessary around why the decision was made not be "reviewing the impact of the economy on these mediators, or the impact of the mediators on health, but instead we will focus on reviewing the overall association between economic factors and health".

We have substantially revised this sentence, replacing it with:

“Each of these mediators is likely to involve a complex causal chain with a significant evidence base around its health impacts. It is not practically possible to review the impact of the economy on each of these mediators or the impact of each of these mediators on health as each of these would likely require a separate systematic review. We will thus not include these mediators within our review, instead we will focus on reviewing the overall association between economic factors and health.“

Other than these minor suggestions, I recommend that this manuscript be accepted for publication.

Reviewer #2: The impact of macroeconomic policy on health outcomes is certainly important to assess and I find this umbrella review to be a very good step in the right direction. The background section is well-written and, together with the conceptual framework, ample justification is provided for the overall research question. The proposed review methodology is also of acceptable quality.

However, a major weakness of the proposed review is that, even for an umbrella review, the research question is far too broad. Neither the exposure of interest (ANY macroeconomic policy), nor the outcomes of interest (ANY health or health inequality outcome), nor the population of interest (ANY adults or children in ANY low, middle, or high income country) are focussed; they cover an immensely huge area of evidence that cannot be summarized or synthesized in sufficient detail in one umbrella review. The authors need to seriously rethink the scope of this review and make it more specific. Health inequality outcomes, especially, would
benefit from being the focus of a separate review and limiting this review to a certain population subsection would also be beneficial.

- This reviewer rightly points out the scope of the review as being potentially problematic – indeed from the outset we have aimed to strike a balance between ensuring this project is feasible and ensuring it comprehensively addresses the economic determinants of health.

- After further careful reflection and discussion amongst authors we feel that the scope in its current form is manageable and that limiting the scope might on balance, create more weaknesses than strengths. Our reasons are as follows:

- Our pilot searches suggest a manageable number of records given our available resources, and within the search results a low number of relevant systematic reviews for inclusion. We anticipate that there will be an unequal distribution of evidence across our categories with some significant gaps in the evidence base and other areas with existing systematic reviews that we will synthesise. This will be vital in informing the future development of the field.

- The a priori framework for the economy includes a category with direct relevance to distributional effects and inequalities - so health inequalities can be considered as a logical part of our conceptual framework.

- The a priori framework applies to low/middle and high income countries. Reviewing evidence from different settings adds to the potential for comparisons and firmer conclusions, and our data extraction table includes the contextual factors of relevance which allow for such contrasts. Because economic determinants differentially impact on population sub groups, it would not be comprehensive to consider the health impacts of the economic determinants of health on a single subsection of the population; instead considering the existing evidence base allows for nuanced comparisons and appraisal of where evidence may be lacking.

- For further information on existing restrictions to scope please see for example details of inclusion criteria and our pilot strategy development. In particular, as noted by reviewer 1, to make the review manageable we have excluded the evidence base on mediators, and instead we will focus on reviewing the overall association between economic factors and health.

Lastly, the authors have definitely followed the correct steps for preparing their search strategy (piloting, expert consultations, and ensuring tracer papers are in the results); however, the proposed MEDLINE search strategy is rather lacking in regards to the search terms for health outcomes and health inequality outcomes. Limiting the research question will allow the search
strategy to be more focussed on one topic as well and will provide search results that give a more in-depth and detailed overview on that chosen topic.

- The health outcomes used in our pilot search were based on a previous umbrella review search where the authors also reported that the inclusion of specific inequalities terms excessively restricted the search results. A sentence has been added to this effect. The retrieval of all of our tracer papers suggests the search is retrieving the right results for our research question.

- Overall, we feel that a balance of comprehensiveness and feasibility has been achieved with the currently proposed methodology. We would again like to thank the reviewers for their comments which have enabled us to improve the manuscript.