Author's response to reviews

Title: The Global Stock of Research Evidence Relevant to Health Systems Policymaking

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Author's response to reviews: see over
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Dear HARPS Editorial Team,

We would like to thank Mr. Chambers and Dr. Oliver for their helpful comments and suggested revisions. We provide our responses to each of the comments provided by the reviewers below and have revised our manuscript using track changes.

Thank you for considering our manuscript for publication in HARPS.

Sincerely,

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Response to comments from reviewer 1 (Duncan Chambers)

Major pulmonary revisions

1. The title of the paper and the stated objective of the work both assume that Health Systems Evidence (HSE) has captured the global stock of research evidence relevant to health system policymaking. While this claim may be reasonable, it depends on (1) the comprehensiveness of the sources on which HSE draws and (2) the accuracy of HSE in identifying all relevant documents from those sources. It should be borne in mind that HSE seeks to include documents (such as policy briefs) that may be only informally published and difficult to identify. You address this issue very briefly in the conclusions/discussion but I would like to see a fuller discussion. Following on from this it would be useful to clarify the status of reference 13, which describes the methods behind HSE. Is it a paper in preparation, an internal report, or what?

The difficulty of determining the comprehensiveness of the sources from which HSE draws, stems from the fact that we provide a detailed account of the methods to build HSE in a separate paper that is currently under review. We have copied key content from this paper (see below) to help with assessing how comprehensive our approach was. We have clarified in the reference for citation 13 that the paper is under review. Lastly, we have added some additional description in the discussion of the sources used to build HSE. The revised sentences on page 14 and 15 now read as follows:

Revised content from pages 14 and 15: “However, we believe this possibility to be remote given that Health Systems Evidence is systematically culled relevant documents from a number of databases (Medline, Cochrane Database of Systematic Reviews, three databases – DARE, PROSPERO, Economic Evaluations Database – from the Centre for Reviews and Dissemination, Rx for Change and the Cochrane Qualitative and Implementation Methods Group’s reference database for qualitative reviews) and any other sources such as listservs (e.g., EvidencedUpdates and PAHO EQUIDAD) and websites (e.g., AHRQ, EPPI-Centre, Campbell Collaboration and several more). As a result, searching other sources would be unlikely to identify any documents. For those interested in reviewing the full list of sources and methods used to build and continuously update Health Systems Evidence we provide these details in a separate paper.[13]”

Key content outlining methods from our methods paper

Our objective in the paper describing the methods used to build HSE was to develop and refine the methods for an easily searched, comprehensive knowledge translation platform for research evidence that could provide decision-relevant information about the many types of questions asked by policymakers, stakeholders and researchers about health systems. To address this objective, we proceeded in three stages:

1. developing a taxonomy of governance, financial and delivery arrangements within health systems and of implementation strategies within health systems;
2. building content by identifying, selecting and categorizing content and by adding value to that content;
3. expanding the types of content; and
4. continuously updating the resulting one-stop shop.

For each of these stages, we have searched (and continue to search) several sources for the nine types of research evidence related to health contained in HSE that we profile in this paper about the global stock of research evidence relevant to health systems. Our searches include:

• Medline (based on a search strategy developed by the Cochrane Effective Practice and Organization of Care Group)
• H and searches of all reviews and review protocols published Cochrane Database of Systematic Reviews within which monthly issue reviewed as it is released
• Hand searches and continuous monitoring of three databases maintained by the Centre for Reviews and Dissemination
  o DARE for systematic reviews of effects
  o PROSPERO for systematic reviews being planned
  o Economic Evaluation Database
• Rx for Change for systematic reviews about implementation strategies related to prescribing
• Cochrane Qualitative and Implementation Methods Group’s reference database for qualitative reviews
• 15 journals for qualitative reviews from the first issue of 2004 to the last issue of 2008 (but hand searching not continued thereafter because of overlap with other sources)
• Continuous scanning of listservs
  o Evidence Updates and KT+ for systematic reviews identified by McMasterPLUS
  o Listservs administered by PAHO EQUIPLOT, PHCRIS, Sax Institute among others
• Hand searches followed by continuous scanning of websites for systematic reviews and review-derived products:
  o 3IE (International Initiative for Impact and Evaluation)
  o Alliance for Health Policy and Systems Research
  o Campbell Collaboration
  o Canadian Institutes of Health Research. Evidence on Tap and KT Synthesis’ program
  o Department for International Development (UK)
  o Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre)
  o Evidence-Based Practice Centers (EPC), Agency for Healthcare Research and Quality (AHRQ)
  o Evidence-Informed Policy Networks for evidence briefs
  o McMaster Health Forum, Evidence Briefs
  o WHO Regional Office for Europe, Health Evidence Network, European Observatory on Health Systems and Policies, McMaster PolicyM onitor up to October 2012 for descriptions of health system reforms and monitored it regularly thereafter
• Hand searches followed by regular monitoring of the websites of the European Observatory on Health Systems and Policies, World Health Organization headquarters and all regional offices and World Bank.

2. Following on from the above, I have concerns about the title of the paper. I suggest rewording the title to make clear that it is an analysis of the content of HSE.

Based on the searches we use to populate HSE that we outline above, we believe that it is accurate to state that it contains the global stock of research evidence about health systems. We will defer to the editors to determine whether they would like a change in the title of our manuscript.

3. There is quite a lot of emphasis placed on AMSTAR. AMSTAR is widely used but it is rather narrow in what it measures and the AMSTAR score of a systematic review may or may not be correlated with its relevance to policy/decision-making. Also, Cochrane reviews (and reviews of effects generally) may score higher because AMSTAR was designed with this type of review in mind. Could you address this point in the discussion?

We only reported AMSTAR as giving an indication of methodological quality and have not suggested that it gives insight to how relevant a review is to policy/decision-making. The relevance of a review to a particular policy question is best determined by the health system topic(s) which it addresses and we outline the distribution of reviews in each category in detail and note several areas where reviews are lacking. With respect to the second point, we have added a new paragraph on page 16 to address this point and a similar point raised by reviewer 2, which we have also copied below.
New content from page 16: “It should be noted that the AM STAR tool was designed originally for reviews of effects. However, the fundamental methodological requirements for reviews that include quantitative evidence remain the same and where they differ there is an option to ask a question as ‘not applicable’ to the score. As noted in our results, we did not conduct quality appraisals of reviews that draw exclusively on qualitative research evidence given that there is currently no quality appraisal tool available (at least to our knowledge) that takes into account the unique methods and approaches to data analysis used in these types of reviews (although two of us - M GW and JNL - are currently finalizing a tool that will be able to be used for this purpose).”

4. It is not terribly helpful to say (conclusions para 3, p15) that there is a need to support efforts to regularly update systematic reviews, given that even the Cochrane Collaboration has not been able to achieve this. If you could add some concrete suggestions for how this might be achieved (e.g. research to address barriers), this would certainly strengthen the paper.

We have added the following suggestion at the end of paragraph 3: “Such efforts could be supported (at least partially) by funders of systematic reviews not only providing resources for new systematic reviews but for updating existing reviews (e.g., by identifying reviews that address timely policy questions but are out of date).”

5. I would make a similar comment about the following paragraph on quality (in addition to point 3 above). Cochrane has a system for peer review of protocols which must contribute to methodological quality but how can this be implemented more widely?

We have added the following suggestion at the end of paragraph 4 to address this: “These efforts could be further supported by journals requiring systematic reviews to be registered in order to be considered for publication.”

Minor essential revisions

1. There is a lot of repetition between text and tables in the results section. I would suggest shortening the text and/or reducing the number of figures and tables to make the results more readable.

We believe that each of the figures and tables outline important components of the results and that the supporting text is necessary to give readers a guide to the key points conveyed by each exhibit.

2. The acknowledgements should include the various organizations that produce the resources on which HSE depends (no need to list them all by name).

Thank you for pointing this out. We have added an acknowledgement of this important source of resources for HSE where we now state that “… we would like to thank the various organizations that produce the resources on which HSE depends.

3. There are missing or extraneous words in a few places, e.g., p4 para 2 line 1 and p5 line 7 from bottom. On p9, ‘additions’ should be ‘addictions’.

DARE is the Database of Abstracts of Reviews of Effects. These have been fixed.

Discretionary revisions

1. It would be useful to have standard deviations along with the mean AM STAR scores in Table 3. Unfortunately, our current data generation process does not allow us to generate the standard deviations. However, we are looking into how to upgrade our processes to include for future reporting.

Response to comments from reviewer 2 (Sandy Oliver)
This is an important paper because it describes the types and formats of readily available health systems evidence in terms of its system and geographical focus, currency and quality. Moreover, it describes how this audit can be updated in real time as new evidence products or reviews in progress become available. The real-world practical importance of these achievements is emphasized by an opening quote from The New Yorker.

Thank you.

The paper presents a careful, detailed analysis that focuses attention on important issues, but in doing so, offers a dense text from which in passing essays are difficult to assimilate and appraise. This difficulty arises in part from the degree of detail and in part from the categories for analysis and the descriptive language. Readers may be helped by a box of unambiguous definitions of the scope of Health System's Evidence and the categories employed to analyze the available evidence products. I am unclear about what evidence briefs' include: summaries of single reviews, multiple reviews, other research? I am also unclear about the distinction between 'delivery arrangement' and 'implementation strategies'. I wonder whether this distinction may be clearer if the term were 'service delivery arrangements' and 'research in implementation strategies'. After re-reading the text at the bottom of page 8 and top of page 9, I understood the interest seems to be on strategies for change, although I was not entirely confident.

We agree that in offering an analysis across such a broad area that we have had to include a significant amount of detail in order to provide a fuller picture of the global stock of research evidence relevant to health systems policy making. While we think the detail included is necessary, we are hesitant to add another box given that we already have six tables and four figures. However, to help clarify the terms identified here as being unclear, we:

- clarified what we mean by 'implementation strategies' after the first use of the term by adding the following text in brackets: "(i.e., those aimed at supporting the use of research evidence at the level of citizens, providers, organizations and policymakers (see page 4);"
- added a brief explanation in brackets after the first use of the term 'evidence brief' by adding the following text in brackets: "i.e., a document that summarizes how the findings from a number of systematic reviews pertain to a pressing problem, select options for addressing the problem, and key in implementation considerations" (see page 6)
- noted on page 6 the use of the term 'delivery arrangements' can be more broadly understood as service delivery arrangements (note that we use the term 'delivery arrangements' based on our interactions and user testing with policymakers who have provided us with feedback about the most intuitive terms to use based on their work).

The summary results reported as bullet points on page 8 mention systematic reviews of effects and systematic reviews addressing other types of questions. I am unclear whether any of these other types of questions address the nature and scale of problems, or whether they all assess options or implementation issues (to paraphrase Lavis 2009).

We have added information in brackets following the bullet point for systematic reviews addressing other types of questions to help clarify what kinds of reviews are included by this document classification. The example we provide is as follows: "e.g., reviews of observational studies that often assess the scale of problems or associations between variables or reviews of qualitative studies that often assess the nature of problems and how and why interventions work."

In the middle of page 9, the choice of categories and the order in which they are introduced does not help the reader see the picture. Maternal and child health, accidents, mental health, and addictions do not seem to be a coherent group. This group may have emerged as a result of the research team categorizing evidence products as addressing infectious disease, non-communicable disease and other. This may have been helpful in ensuring a systematic approach to inspecting the studies, but it is not helpful in presenting a picture of what's available, especially when the 'other' category is presented first, before the coherent categories of non-communicable disease and infectious disease. My next difficulty was understanding the statement immediately below about topics related to 'providers'. Are the physicians, nurses, allied health professionals etc. that follow a subset of the
providers"? I think a little copyediting with clarify this statement. At the bottom of page 9 is a statement about the few evidence products that address long-term care. This seems particularly important given the challenges health systems are already facing with an ageing population. This is a point the authors may wish to emphasize in the discussion.

- re: point 1: The grouping of mental health and addictions, accidents and maternal and child health was for reasons related to grouping diseases according to the three higher level domains (infectious diseases, non-communicable diseases and 'other') based on groupings provided by the WHO (which we outline in our separate methods paper). We agree that for purposes of presenting the information in the text for this paper that it would be easier to simply present only the diseases and not the higher level domains and we have revised this text accordingly (although we keep the latter in the tables in case some readers are interested in this additional detail).

- re: point 2: The list is a list of different types of providers. We have made some minor edits to help clarify the sentence.

- re: point 3: We added long-term care as an example of a topic-specific domain that requires attention in terms of diversifying the topics addressed by systematic reviews to help support efforts towards developing global guidelines to support evidence-informed policies about health systems.

On page 11 the authors note that the methodological quality of reviews addressing delivery arrangements and implementation strategies was somewhat higher than that for reviews addressing governance or financial arrangements. Similarly, there is a statement about the higher quality of reviews of effects compared with the quality of reviews addressing other questions. Both these statements may be worthy of discussion as they raise questions about whether the latter reviews in each case are inherently more challenging or require different measures of quality or whether experienced review teams are lacking in these areas.

We have added a paragraph on page 16 to address this, which we copied above in our response to the first reviewer.

I am not sure what point the authors are making on page 12 when they mention how many documents are linked to independently produced, structured decision-relevant summaries. Perhaps the 'evidence briefs' are independently produced, structured decision-relevant summaries. Does it matter if structured decision-relevant summaries are produced by the original review teams? Immediately below are analyses relating to freely available evidence. The statement about access to full Cochrane reviews could be qualified by a statement about how many countries have a national licence, and/or the number of people with full access through a national licence.

Independently produced structured, structured decision-relevant summaries refer to user-friendly summaries of systematic reviews that are produced by a number of organizations around the world (the full list of groups that produce summaries are provided in the first column of Table 4). We have added a minor wording change at the bottom of page 11 to indicate that structured decision-relevant summaries are referring to user-friendly summaries.

In summary, this is a carefully conducted analysis of the current state of health system evidence. It draws attention to an important resource for ongoing appraisal of this body of literature. It would benefit from some definitions being clarified, adjustment of some analytical categories to present a more coherent picture, and some additional issues being considered in the discussion.

Thank you – we hope our revisions have addressed the helpful feedback you provided.