Author's response to reviews

Title: Effectiveness of different databases in identifying studies for systematic reviews: experience from the WHO systematic review of maternal morbidity and mortality

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Author's response to reviews: see over
Response to Arminee Kazanjian’s comments: reviewer 2

Comment 1 (paragraph 1)
The submitted manuscript was intended to present results on the effectiveness of the different major electronic databases searched conducting a systematic review on the incidence/prevalence of certain maternal morbidities and also mortality. We have stated in the methods section what other sources of data were searched in order to capture references not included in the major databases. We have added more detailed explanation on this latter issue (paragraph 1 of Methods). These ‘other’ sources (electronic or not) were merged under one code together, ‘other’, and individual analysis is not possible. We think the important issue is to reach the data in developing countries regardless of what sources (electronic or not).

We have added more discussion on the importance of retrieving data from developing countries (paragraph 3 and 4 of Discussion). This issue is not seen from a perspective of ‘beyond electronic searches’ but more from a perspective of other than the major, well-known and easily accessed databases (MEDLINE, EMBASE, etc…). The other searches included regional electronic databases (African Index Medicus [http://www.who.int/library/country/regional/aim]; IndMED [http://indmed.nic.in], and HELLIS.ORG [http://www.hellis.org] and these are likely to include the literature relevant to the country and the region that it is not indexed in the major databases (paragraph 1 of Methods, paragraph 4 of Discussion).

The point in the conclusion to which the reviewer is referring states: ‘Guidelines for search strategy of systematic reviews of observational studies in general, and incidence/prevalence studies in particular, need to be developed’. As opposed to randomised controlled trials (RCT), for which search strategies have been largely developed and validated, electronic searches for observational studies (both, for effectiveness of health interventions that are difficult, impossible or unethical to conduct, and for studies aiming at measuring incidence/prevalence of diseases and mortality) are non-existent and experience limited. Our conclusion reflects the point raised in the first paragraph and also the last paragraph of the Discussion.

Comment 2 (paragraph 2)
We agree with the reviewer that an extensive search strategy for capturing all articles including incidence/prevalence data in a population is going to be imprecise specially in the case of this type of systematic review for which no search strategies that could compare with the case of RCTs have been developed. We aim at calling attention to which databases identify more useful information even if the search strategy is imprecise. This information is important increasing the efficiency of electronic searches in future reviews. As stated in the manuscript, we screened more almost 65,000 records over a period of more than 3 years. This was tedious and had time and budget implications. This analysis will help to prioritize certain databases and disregard others.

The reviewer mentions a study recently published on IJTAHC, 2003;19(1):168-178 which provides statistical significance of results. Although the definitions used for
sensitivity and precision are the same, we think her study is different than ours. They compare sensitivity and precision of searches between two different ‘projects’. In our case, we compare sensitivity and precision of the databases, not ‘projects’. We think that statistical significance is not relevant in this analysis (we only have one ‘project’).

Comment 3 (paragraph 3)
For the sake of space, we have very briefly stated the methods, and only the part most related to what is has been analysed in the present manuscript. The paper cited for a full description of methods is a manuscript published last July in BMC Medical Research and Methodology where we presented the detailed methodology as well as our experience with technical and practical issues in conducting this review. In the methods paper, we do not present results for the individual databases or their efficiency for which we consider that the present manuscript adds to what the previous paper reported. We have expanded this part of the methodology to make it more clear. We have also clarified that the search did not exclude RCTs as the reviewer seems to have understood (paragraph 1, Methods).

Comment 4 (paragraph 4)
We have added a paragraph expanding on the methodology and the rational for the two stages selection. We also added information regarding the number of reviewers screening citations and the interobserver agreement (paragraph 2 and 4, Methods).