Author’s response to reviews

Title: Prevalence rate of undiagnosed Tuberculosis in the community in Ethiopia from 2001-2014: Systematic Review and Meta-analysis

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Author’s response to reviews:

Response to reviewers and editor

Version: 4; Date: 4/06/2019

Herman Van Oye

BMC Public Health Achieve
Subject: AOPH-D-19-00047

Dear editor

Here, we have carefully considered and tried to address the points raised.

Comments and Responses

Reviewer-1

Comment: I would agree some graph about the pooled estimates (Forrest plots or similar kind of graphs).

Response: accepted and forest plot and funnel plot added
Comment: I would agree some discussion about eventual comparison example concerning the prevalence studied in migrants flows

Response: the suggestion was initially considered and our result from the community was compared with the highly risky population in the country, prisoners, and the result showed great difference (line 241)

Reviewer-2

Comment: The background section is rather short. Some of the material introduced in the discussion should be mentioned already in the background and introduction.- Page 9 L27-32, issues regarding differences in the type of microscopy tests used to diagnose TB should be introduced in the background section, and then be recalled to discuss results. (Moreover, check the grammar of this specific sentence)

Response: the suggestion accepted (line 81-84 and line 184-187)

Comment: - Page 9 L44-49, information about the most common source of infection should also be given in the background section, particularly as it underlies the decision to restrict literature to those that considered patients >14 years old

Response: the comment accepted (line 66-69)

Comment: - Page 9 L49-56, the surveillance program should also be described in the background. This is particularly important as a justification for omitting the grey literature from the systematic review is currently missing.

Response: the comment accepted (line 77-81)

Comment: - Clearly state the objective of your systematic review and include a PICO statement

Response: the comment accepted (line 92-95)

Comment: The literature search strategy is only rather vaguely described and it is difficult to judge how inclusive it may have been. Please add the full search algorithms employed for a database such as Pubmed/MEDline. Justify why the grey literature was not included in the search.

Response: the comment accepted (line 105-114)
Comment: If possible, please include the results of any piloting of the pre-tested form as well as the results of the extraction in supplementary information

Response: The quality assessment and result was described on the main text and points considered for the assessment were incorporated (Line 145 to 152)

Comment: Quality assessment: please reference the quality appraisal method you have used. It is unclear, from the short paragraph included in the method section and flow diagram, whether any eligible studies were excluded due to poor quality. Could you please clarify this point?

Response: The comment accepted (line 143-144,155)

Comment: For the results section, forest plots are mentioned in the abstract and elsewhere in the main text of the manuscript, yet not presented. Please add the forest plots as figures, as well as funnel plots if possible when discussing potential publication bias. Heterogeneity itself is an important results of meta-analytic procedures and the potential sources of heterogeneity between studies are discussed to some extent in the discussion section, but do probably deserve more detailed

Response: The comment accepted and forest plot and funnel plot added. The subgroup analysis to investigate the source of heterogeneity not visible as the limited number of studies incorporated

Comment: The clarity of the discussion section could be improved by being clearly structured according to different topics on interest, e.g. comparison with other regions, limitations of the current systematic review, sources of heterogeneity between studies etc.

Response: The suggestion accepted

Comment: The quality of the English and grammar ensures easy comprehension throughout. I have only picked up on a small number of typographic errors or instances when the grammar hindered comprehension:

Response: All the hypothesis grammar issues pointed by the reviewer were corrected line by line throughout the text and suggested sentences change was accepted directed.

Editor:

Comment: Clear description of PICO

Response: Described as suggested (line 92-94)
Comment. results of statistical analysis are not presented: fores plots and table; funel plot

response : the suggestion accepted and added  Comment: consider stratified analysis: by period of study (before and after 2010); by method of diagnosis

Response: The primary purpose of the forest the review is to determine the magnitude of undiagnosed smear positive tuberculosis, so stratification by the diagnostic modality such as only microscope and microscope with culture may lose the central idea. To try to stratified by the year as <2010 to >2010, only two study was done before year 2010 Comment please explain why previous reviews were excluded; why grey literature was exluded

Response : the reason described (line 126-127)

Comment. titles of tables and graphs should refer to the study

Response: Modified: Comment. content of tables should be explained better: e.g. table 1. "cough> 2k"; what does this mean

Response : revised