

Spatial epidemiology of diabetes: Methods and insights

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REPLY TO REVIEWERS' COMMENTS

We appreciate the opportunity to resubmit our work to the journal. We would like to thank the editor and the reviewers for assessing our work and for their valuable feedback and suggestions that have improved our manuscript. Please find below a point-by-point reply that addresses each of the journal and the reviewers' comments. We have also incorporated these suggestions in the revised manuscript as noted below. We would be pleased to address any further points that the editor or reviewers may find unsatisfactory.

Reviewer #1:

Specific Comments to Authors: My comments are as follows: The authors discussed the implementation and use of spatial epidemiology and GIS to the study of DM in the review. It is a new method that the spatial epidemiology is used to understand to identify the potential geographical drivers of the spatial distribution of DM. But the authors did not adequately summarize the association of the geograohic spatial factors with the rates of the DM. Likewise, the authors analyzed the association between DM and some communicable diseases, between DM and some non-communicable diseases in the review. It is not consistent with the theme of the areticle shows that the DM patients have the higher rate to get some communicable or non-communicable diseases. So the review need to be modified.

We thank the reviewer for the insightful comments. We want to highlight that due to the relative novel approach of the spatial epidemiology on the study of diabetes, the main goal of our review was to provide a general overview of the spatial distribution of diabetes and the different methods implemented to understand the geographical structure of the disease, and not to identify with details the spatial drivers of the geographical distribution of diabetes. The reviewer's suggestion about the analysis of the association between spatial factors and the diabetes rates is beyond the scope of our manuscript and would be better addressed in a different study like a meta-analysis. However, to give more relevance to the factors linked to the spatial structure of diabetes, we have moved the supplementary table 2 that summarizes the main studies discussing the spatial structure of diabetes and potential spatial drivers to the main document (Table 1). We also mentioned the importance of conducted such studies linking the spatial cofactors with diabetes rates in the revised document.

Regarding the comment about the link between communicable and non-communicable diseases and Diabetes, we want to highlight that diabetes comorbidities are very comment at individual and population level, and thus spatial epidemiology can become an important tool for understanding these disease interactions. For that reason we included the discussion of these disease interactions in the review However, we understand the reviewer's concern and recognize

that the bar chart in Figure 3 might not be consistent with the main topic of the manuscript and thus it was removed from the revised version of the document.

Reviewer #2:

Specific Comments to Authors: Dear Authors, You presented an important issue having the potential to prevent DM and lower the burden of its complications, especially in the low-income countries/areas.

We thank the reviewer for the positive feedback and we hope our manuscript provide a valuable contribution for addressing this important health issue.

Science editor:

(1) Scientific quality: The manuscript describes a review of the spatial epidemiology of diabetes: Methods and insights. The topic is within the scope of the WJD.

Thank you

(2) Classification: Grade B and Grade B; Summary of the Peer-Review Report: The authors presented an important issue having the potential to prevent DM and lower the burden of its complications. However, the authors did not adequately summarize the association of the geograohic spatial factors with the rates of the DM

This comment was addressed above

(3) Format: There are 2 tables and 3 figures. (4) References: A total of 121 references are cited, including 23 references published in the last 3 years; (5) Self-cited references: There are 3 self-cited references. The self-referencing rates should be less than 10%. Please keep the reasonable self-citations that are closely related to the topic of the manuscript, and remove other improper self-citations. If the authors fail to address the critical issue of self-citation, the editing process of this manuscript will be terminated

Self-citations are less than 10% as demanded by the journal

(6) References recommend: The authors have the right to refuse to cite improper references recommended by peer reviewer(s), especially the references published by the peer reviewer(s) themselves. If the authors found the peer reviewer(s) request the authors to cite improper references published by themselves, please send the peer reviewer's ID number to the editorialoffice@wjgnet.com. The Editorial Office will close and remove the peer reviewer from the F6Publishing system immediately.

No references were suggested by the reviewers

(7) Language evaluation: Classification: Grade B and Grade B. 3 Academic norms and rules: No academic misconduct was found in the Bing search. 4 Supplementary comments: This is an invited manuscript. No financial support was obtained for the study. The topic has not previously been

published in the WJD. 5 Issues raised: **(8) The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor**

Original figures were included in a Powerpoint as requested by the journal

(9) PMID and DOI numbers are missing in the reference list. Please provide the PubMed numbers and DOI citation numbers to the reference list and list all authors of the references. Please revise throughout;

Citations have been modified to follow the journal requirements

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Only original figures have been included in the manuscript and no figures published elsewhere were used