Reviewer’s report

Title: Travel time to health facilities in areas of outbreak potential: maps for guiding local preparedness and response

Version: 0 Date: 06 Sep 2019

Reviewer: Eric M. Delmelle

Reviewer's report:

This is a nicely written paper by a strong team. The paper assesses travel time to health facilities in some African countries, and how this information can be used in concert with maps of infectious disease outbreaks.

I am familiar with the approaches the team has developed in their paper (grid-based accessibility). The method they have developed is not new, but the application is novel. The sources of the data are accessible to other researchers, and the maps are informative.

However, I feel the authors are missing some important components in modeling geographic access to health care. For instance, it is well known that individuals may not go to the closest hospital/health center for a myriad of reasons. Their symptoms may be so severe they have to seek expert care, and not the closest health post. Or there may be a shortage of staff at the nearest dispensary, etc... in other words, potential access (which is assumed in this paper) is not the same as revealed access....and so in reality the maps that are provided do not reflect the true travel (which will be much greater). In developed countries, people may also seek care at another, non-closest provider, due to insurance restrictions or because another specialist speaks the same language.

Although these two papers are written in an urban context, we can see that individuals rarely seek the closest health facility


I would like the authors to discuss this limitation.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Not applicable

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

n/a

**Statement on potential review bias**

Please complete a statement on potential review bias, considering the following questions:
1. Did you co-author any publication with an author of this manuscript in the last 5 years?
2. Are you currently or recently affiliated at the same institution as an author of this manuscript?
If you can answer no to all of the above, write 'I declare that I did not publish with these authors in the last 5 years and also meet the affiliation criteria”. If your reply is yes to any, please give details below.

n/a

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license ([http://creativecommons.org/licenses/by/4.0/](http://creativecommons.org/licenses/by/4.0/)). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal