Reviewer’s report

Title: Assessing Chikungunya risk in a metropolitan area of Argentina through satellite images and mathematical models

Version: 1 Date: 01 Oct 2015

Reviewer: Eric HY Lau

Reviewer's report:

The authors have improved the manuscript substantially, especially providing more details on the model and the parameters. In one of the key results, a sudden drop in infection was found in May (Figure 7) and worth more discussion. Regardless of these technical details, this study demonstrated good use of remote sensing in the lack of local rainfall data which deserve publication. Below please see my further comments:

Methods

1. The authors clarified that no official local measurement was available. I suggest this point should be further highlighted which shows the value of using remote sensing.

2. It's still very difficult for readers to understand what the wetness index is. It may be beneficial to show the ranges of the index, during wet or dry seasons respectively, so that it will be clearer the meaning of setting -50 as a threshold.

Results

3. Figure 7, the sudden drop in % infected in May and the sudden peak in June was not explained by the number of vector as shown in Figure 5, where there was consistently decreasing (without any sudden drop or increase) mosquito population during April to June. This phenomenon applies not only to the mean but to each of the simulation in Figure 7. Would that be caused by any potential discontinuity in the temperature dependent functional form as shown in equations 13-21 in the Appendix? If this phenomenon always happens, there could be important implications in terms of risk communication or control strategy after seeing the drop in mosquito population in May. This should be discussed in more detail.
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.

Unable to assess

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:

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