Reviewer’s report

Title: Community perceptions of dengue fever and Aedes aegypti in central and peripheral urban areas in Machala, Ecuador

Version: 2 Date: 18 July 2014

Reviewer: David Larsen

Reviewer’s report:

This paper presents an important investigation into the perceived drivers of dengue fever in Machala, Ecuador. The study design and analysis appear to be appropriate for the research question. In general I found it a bit difficult to follow the story of the paper.

Major compulsory revisions

1. The background is difficult to follow. I had a hard time understanding just what the authors were suggesting. It read a lot like a literature review and could be shortened substantially.

2. The authors include results from their household survey in the methods section. I suggest moving those results to the results, as their validity is dependent upon the methods of the household survey.

3. Will the authors expound a bit more upon how the household survey and qualitative focus groups were related? Were they trying to ground-truth the results from the focus groups, did the focus groups drive the creation of the survey?

4. The authors need to briefly describe the survey methodology (cluster sample, simple random sample, etc) on page 9 lines 16-18. It appears to be a survey of incident dengue households, which would likely lead to a lack of difference between household drivers of dengue transmission in the results.

5. The results and discussion sections are also difficult to follow. Because of the multiple methods used the authors need to state where their results and conclusions are coming from, either the focus groups or the household surveys.

Minor essential revisions

6. Figure 1 – can you standardize figure 1 by population growth? Also, how have diagnostics influenced this increase. Is this a real increase or just a rise in diagnostics?

7. The last paragraph of the background was repetitive to the rest of the background.

8. The authors need to briefly describe the survey methodology (cluster sample, simple random sample, etc) on page 9 lines 16-18.
9. On page 10 lines 19-20 the authors discuss the recent dengue epidemic. Are these numbers from the household survey or surveillance? If the latter I suggest moving to the background.

Discretionary revisions

10. The authors might consider removing the subsections from the background and ensuring the writing presents a logical flowing argument.

11. On page 5, lines 7-8 the authors first introduce the social-ecological systems approach. I felt like this introduction to the approach came a bit late, and could come in earlier in the introduction.

12. On page 9 line 3 the authors state they consulted community leaders. I am not a qualitative researcher and I rarely read qualitative methods. I thought it might be helpful to go into detail about the community leaders. If I am off the mark please ignore this suggestion.

13. On page 9 lines 11-14 I thought the authors might expound more upon the standard qualitative data analysis methods used. If I am off the mark please ignore this suggestion.

14. The authors might consider combining the results and discussion section if the journal allows. This would facilitate the interpretation of the qualitative focus groups.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.