Reviewer’s report

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

Version: 2 Date: 12 July 2014

Reviewer: Mayfong Mayxay

Reviewer’s report:

A. Major Revisions

Abstract:
Background: it would be great if the authors could provide the rationale on how the community perception on dengue and its vector would contribute to the vector control program in the country.

Method:
1. What does the “focus group survey” mean? Was it focus group discussion?
2. Was the study a qualitative or quantitative method or a combination between the two? Please provide a clearer idea on this.
3. Please provide the sample size of the study.

Results:
1. What is the definition of political-institutional and community causes?
2. What are the four common misconceptions about dengue transmission and ecology of mosquito vector? It would be better if the authors could provide the details in the abstract.

Conclusions: The authors concluded that “This study provides a model for conducting social-ecological community assessments to inform…” but I do not see the evidence in the results to support this conclusion. Please consider re-writing this sentence.

Background:
1. It would be better if the authors re-arrange the first paragraph by beginning with the description of dengue followed by highlighting the problem
2. The magnitude of dengue in Ecuador should be mentioned earlier rather than by nearly the end of the background (for example in “Dengue in Ecuador”)
3. As mentioned above, please provide the rationale on how the community perception on dengue and its vector would contribute to the vector control program in the country.
4. What is “ULV”? Please provide the full description of this before using abbreviation
Methods:
1. Study site and study population: this is a bit confusing and too long. Please make this part shorter and more precise.
2. Research methods:
   a. Why both verbal and written consent was sought from the participants in the focus groups? Did the participants know that they were tape-recorded during the discussion and was consent obtained from them?
   b. What does “focus groups” mean? Was it meant focus group discussion?
   c. Please clarify whether this was a quantitative or qualitative or a combination of quantitative and qualitative study.
   d. Please be more precise about the number of the participants in a focus group whether it was 5-6 or 3 to 8? Who were they? How old were they? Was there any separation between females and males or between the young and the old?
   e. How could the principle investigator do many jobs at the same time (a facilitator, note taker, recording, observing….)?
   f. Please provide full description for VAL, SJR and MJBC before using abbreviation.
   g. What is “standard qualitative data analysis methods”? Please detail how the discussions were analyzed with what statistical program?
   h. Household surveys:
   • How 79 households were determined for the survey? Was this number based on the sample size calculation?
   • How were 79 households were selected for the survey? Were they randomly selected?
   • Were the respondents (adults) for the survey the heads of the households or representatives regardless of whom they were?
   • Were the interviewees in the surveys also involved in the focus groups?
   • Was the interview a face-to-face method?
   • How was the questionnaire designed? Was it pre-tested before use?

Results:
1. The results are too long and I suggest that the authors shorten these and make them more precise.
2. I suggest that the authors separate between qualitative an quantitative results.
3. Line No. 3 to 4 of page 10: the authors used the term “causes” of dengue: biophysical, political-institutional, and community-household causes”. I do not think that these are causes and I would use the terms “factors” contributing to dengue outbreak etc…
4. The Figure 3 looks very confusing and the classification of the categories for factors contributing to dengue epidemic is also complicated. I would classify as (i)
environmental, (ii) political and institutional, (iii) economical, and (iv) social, and (v) individual factors.

5. Table S1: please provide variation or dispersion for mean and median. No need to use bold letters to highlight the significantly statistical level. What does “human consumption” in the last row of the table mean?

6. Table S2: is too long and I feel that this is not helpful much and suggest to delete.

7. The authors identified four key misconceptions that limited people’s ability to prevent dengue in their household (Line No. 6-7 in page 10) but I do not see what are these four misconceptions!

8. Table 1, 2 and 3 are also very confusing and complicated! I suggest classifying them as (i) Table 1. Socio-demographic information of the respondents. Please consider including some information from Table S1 into Table 1 as well, (ii) Table 2. Knowledge/awareness/perception on dengue and dengue prevention of the respondents, (iii) Table 3. Attitude or opinion of respondents on dengue control/prevention + sources of information on dengue and dengue prevention received by the participants, and (iv) Table 4. Behavior or practice on dengue prevention by the study participants.

9. The number dengue cases shown in Line No. 19-21 of page 10 are not clear and please explain.

10. In the topic “General perceptions and responses to dengue”, Line No. 13 of page 10: I do not see much information on the respondents’ perceptions and responses to dengue. In contrast, the authors put the experience of having dengue of the people, the number of dengue cases caught by people and their care seeking, sources of information received by the respondents etc. Please consider revising this part.

11. Line No. 4 (Misconceptions) in page 12: the information in this section is too much and long and I suggest shortening and making it more concise.

12. Causes of dengue (Line No. 5, page 14): I think this should be the view of the respondents/participants on risk factors for dengue outbreak. As suggested above, it would be better if the authors classified as (i) environmental, (ii) political and institutional, (iii) economical, and (iv) social, and (v) individual factors.

13. Role of the government and community (Line No. 11, page 15): Again this is too long and confusing. The authors should present separately between qualitative and quantitative data and clearly mention which one is quantitative and which one is qualitative.

Discussion: This is (again) too long and confusing! Suggest to shorten and make it more concise.

Conclusions: Here, I do not see what the real conclusions are but the authors wrote mostly the recommendations without obvious evidences. Suggest to revise these. Also

Other suggestions:
Please provide limitations of the study, which I think are very essential for this paper.

B. Minor Revisions
1. Please revise the references carefully and please conform to the journal format
2. Please shorten the title of each table and make the tables more concise
3. No need to put “%” for each figure in the tables if this is done elsewhere.

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

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**
I have not any competing interests