Reviewer's report

Title: Dengue surveillance based on geographic information system: identification of hot spots transmissions areas

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Reviewer: An Dao

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Reviewer: Dao Thi Minh An – Hanoi Medical University
Public Health

Commence from reviewer for the manuscript titled 'Dengue surveillance based on geographic information system: identification of hot spots transmissions areas'

1. Is the question posed by the authors well defined?

Background: para 3

Research question was not presented clearly. In the introduction, author presented that previous studies indicated that correlation between HI and BI with dengue incidence is weak most of the time. However the objective of the current paper still identify transmission areas of dengue considering the association between the house infestation index (HI) and dengue incidence. This is not convinced and logical approach.

2. Are the methods appropriate and well described?

Methods are well described But the Bayesian rate should be explained more regarding is it popular used and why?

3. Are the data sound?

Epidemiology data: para 1

This ecological study utilized dengue cases notified by the National Disease Surveillance Data System (SINAN). To understand whether data from this surveillance represented occurrence cases, author should have more description on how the National Diseases Surveillance conducted in which how was a dengue case reported and recorded. How was a mild cases without hospital admission identified and recorded to the SINAN

The social economic data extracted from 2010 Demographic Census while cases were extracted from 2007 and 2008 NDSD. These two data sets seem not get along with each other regarding period of time for analysis.

Data analysis: para 1

The BI was mentioned as low completion in paragraph which discussed about
The pending rates were high in 2007 and 2008, so more information about to what extent that those closed/refusals houses differed from participating houses and need be more discussed in the discussion session.

Should analyze deeply regarding interaction among HI, geographical issues, and water supply and hygiene issues.

5. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Yes,

6. Are the discussion and conclusions well balanced and adequately supported by the data?
Conclusion lacks of information regarding association between incidence rate and HI, social economic factors

7. Are limitations of the work clearly stated?
Yes

8. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
Not yet

9. Do the title and abstract accurately convey what has been found?
The title lacked the second part of the study that was the association of dengue cases and related factors.

10. Is the writing acceptable?
Yes, but still typography mistakes existed

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

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

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests:

'I declare that I have no competing interests'