Author's response to reviews

Title: Spatial distribution of the risk of dengue fever in southeast Brazil, 2006-2007.

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Author's response to reviews:

Campinas, March 05, 2011
To BMC Public Health
Editorial Board

Dear Editors

We would like to resubmit the article “Spatial distribution of dengue fever risk in Campinas, State of São Paulo, Brazil, 2006-2007,” after revision, for reconsideration by BMC Public Health. First of all, we would like to thank the referee for the review. We have accepted the suggestion and have modified the text according to minor and major revision detailed below. The new manuscript version is annexed.

Answer to Referee 1

Indeed, the manuscript has very little information about the laboratory diagnosis of cases. They were included in Methods. Controls were not tested (laboratory) and this is one limit of the study which was included as a comment in Discussion. Cases were not based on services records. All patients with diagnostic confirmation made by state reference laboratory were contacted and invited to join the study. This detail was clarified in the text.

Table 1 was more explored in Results and Discussion.

References were reviewed.

Answer to Referee 2

Cases and controls were matched “in time”, that is, after a case occurrence a control was selected randomly in the study region. Case-to-control ratio was 1:1. We included more details about these questions in the Methods.
It was also included the manuscript (Study Variables section - Methods) the correction of data after secondary data collection (10% revisited households).

In Discussion section we clarified “edge effects” that occur in the southeast corner of the map.

In the Statistical Analysis section and Abstract, it was specified the type of smoother used with the generalized additive models.

About the question: Why not use chi-square tests of independence and multinomial regression instead?

Dengue cases (mild and severe) were analyzed together as they have common risk environment factors associated with vector and virus transmission. But we wanted to investigate possible different determinants of occurrence between mild and severe cases particularly the space risk distribution. This was possible with the multinomial regression. One reason to analyze cases separately is that severe cases may be more frequent after previous virus circulation in a specific geographic region.

Conclusion and Abstract were reviewed.

Minor and essential revision suggestions were totally accepted: Abstract, Methods, Background, and Table 1, 2 and 3 were reviewed. We simplified the first paragraph in the Statistical Analysis section and described models as simple and multiple logistic regression. Equation 1 was specified. Others equations were reduced.

The words likelihood, risks and predicted probability of occurrence were standardized in the text.

We are available for any other question and revision of the manuscript. Look forward to receiving your response,

Sincerely,

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