Reviewer’s report

Title: Space-time cluster analysis of indigenous and imported dengue fever cases in Guangdong province, China

Version: 2 Date: 11 December 2011

Reviewer: Marc Souris

Reviewer’s report:

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

The purpose of spatio-temporal analysis is dengue diffusion pattern definition, understanding how the disease spread from index cases.

The geographical scale at witch this kind of analysis need to be developed is fundamental, but not addressed in the paper.

As we can see in the presented maps, the location of reported cases (very few) are limited to very few county and no cluster analysis, at this scale, is needed.

Spatio-temporal analysis (like space-time cluster detection) is not equivalent to disease mapping by year and county.

2. Dataset

As mentioned in conclusion (too late), Dengue is asymptomatic in 80 % of cases; Dengue cases are only severe fever cases; DHF is a strong marker of dengue cases; but no DHF cases are mentioned. The dataset description is too short. No data on percentage of PCR or IgM detection. No description of public health system and report quality (especially, no description of difference between urban and rural areas). No data on geographical accuracy of cases.

Immune status of the population is essential to understand the epidemiology of the disease.

Methods

Incidence is very very low, and we think that the data quality is not enough to conduct such kind of analysis. Maps (integration by counties) shows only few location of infection, and no cluster analysis is needed to analyze this situation.

Space-time cluster analysis means cluster analysis by time windows. We did not see any result of this kind.

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

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