Reviewer's report

Title: Comparative estimation of chikungunya prevalence in Reunion Island

Version: 3  Date: 27 March 2008

Reviewer: Maël Bessaud

Reviewer's report:

Major Compulsory Revisions

Background

The pregnant serosurvey study was performed a certain time after the outbreak, the word "quickly" is a little bit too strong.

Patient and Methods

The rural or urban environmental aspect of the pregnant women housing should be mentioned to help the understanding of seroprevalence differences among the different parts of the island already mentioned by Perrau et al (www.insee.fr/fr/insee_reunion). The author should explain the non-representativity of this subgroup due to repartition and selection biases: they were not randomly chosen different from the second work.

"their activity was representative of the baseline…” is unclear and should be explained.

Detection of Chik infections

Were there any interlab Elisa controls to standardize the different methods (sera vs prick-method). Were there any other viruses tested? (such as dengue).

Results

Survey on pregnant women

The word extrapolation is not accurate considering the sampling bias of the pregnant women.

Discussion

Page 1

Line 6

This sentence is in contradiction to the background section line 22. The author should clarify.

The present study was performed after the Chik outbreak report, aiming at "refining the surveillance-system attack". How could a developing country use seriously this method if the aetiologic agent of the outbreak is not already characterized?
This is an over interpretation of a serological study (cross reactions may occur among viruses belonging to a same serogroup).

The statistical test used should be described. P-value…

The author may explain the reasons of these differences

This sentence is purely speculative without any explanation. The authors should clarify.

Data from other arbovirus such as dengue should be compared.

Minor Essential Revisions

Conclusions

Replace 18% by 18.2%

Line 5 the p-value should be mentioned

There are many parts in "red" that must be corrected.

The tables are not well presented (to many horizontal and vertical lines)

Table 2

Is unclear

The figures are seen twice in the manuscript!

Level of interest: An article whose findings are important to those with closely related research interests

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