Reviewer’s report

Title: Dengue type 4 in Rio de Janeiro, Brazil: cases characterization following its introduction in an endemic region

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Reviewer: Anna-Bella Failloux

Reviewer's report:
The manuscript by Manoela Heringer et al. describes an outbreak due to dengue-4 in Rio de Janeiro in 2011-2013 with precise characterization of 3727 human blood samples. Clinical, epidemiological, virological, molecular parameters were described for each confirmed case. 705 dengue 4 cases were detected. The main findings were:

* Females were more infected than males
* Primary cases were more frequent than secondary cases
* Most fatal cases were infected secondarily by dengue-4
* Dengue-4 genotype II was the most prevalent genotype with a possible introduction from Venezuela and Colombia

This study is very well designed and based on 3727 suspected dengue cases with 1593 confirmed cases of dengue and 705 dengu 4.

I suggest to:
- Provide an explanation on the higher number of dengue cases in females
- Add some information on mosquito populations: main vectors, fluctuations in densities, vector competence of mosquitoes to different serotypes

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?

If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English

Please indicate the quality of language in the manuscript:

Acceptable

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