Reviewer’s report

Title: Airport sentinel surveillance and entry quarantine for dengue infection following fever screening program in Taiwan

Version: 12 Date: 9 December 2011

Reviewer: Dounia Bitar

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Minor essential revisions

Background
- 1st sentence "dengue is the most common arboviral infection worldwide" : please give a reference
- 4th sentence : is "uncontrolled" urbanization the factor for increasing breeding sites, or is it just "urbanization" – in last paragraph (non contact thermometers) :
  (a) references 10-13 refer to "the threat of pandemic influenza" as this was a future event : this might need an update
  (b) authors mention that "the extension of cameras for a public health application has not been assessed" : this sentence (largely extracted from reference 10) was true some years ago but things have evolved = references could be updated; see for instance Hewlett & al, 2011

Method
- Page 6, 3rd line : "6 inspection operations i.e. 4 or 1 entry gates" : not clear
- There seems to be a bias in evaluating the efficacy of airport screening. True positive cases and false positive cases are compared with the total number of imported dengue cases. Are there other entry routes for potentially infected cases, e.g. by boat? How far these cases , who did not pass through an airport, would influence calculations?

Results
- First sentence is not clear. I guess we should read "fever prevalence detected by NCIT ranged between 0.46 and 2.58% of all passengers, and etc."
- Results should refer to table 2 instead of table 1. Table 1 is not useful and confusing. Table 2 needs clarifications ; add a sum (or average) in order to be coherent with text.
- Were "febrile passengers" (Table 2, col.3) detected by NCIT alone, or by NCIT followed by ear thermometer ?
- How can the authors explain the difference between febrile passengers (col.3) and those who underwent a laboratory sample (col.5) ?
- What is the difference between "total imported dengue cases" (Y axis, figure
1B) and "dengue importations detected in the community" (Y axis, Fig 1C)? (the same comment applies in the text).

- Figure 1A is not useful, results mentioned in text are sufficient.

Discussion

- Page 11 Sensitivity result for 2007 is 40.2% and not 40.5% (72/179)

- Page 11, line 14 : editing "which could partially curb the domestic transmission"

- See comment in method as regard to efficacy of airport screening vs. other routes of introduction of cases : How far these cases would influence the evaluation?

- Page 11, lines 3&4 : "the proportion of cases detected increased yearly" : this increase is not significant using a Poisson regression.

- Page 13, the discussion opposes NCIT vs PCR. Where do the ear thermometers stand? There are two triage steps for fever, for different thresholds, before blood sample is taken. These steps are not clearly discussed in terms of feasibility, time constraints, costs.

- Page 13, References 10 to 19. The authors seem to imply that all these references suggested that entry screening was effective for SARS. I am not sure that the respective author's suggestions were as clear. If so, a short summary of their conclusions for the different germs would be helpful.

- Also, at bottom of page 13, is reference 16 appropriate?

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

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' below.