Reviewer's report

Title: Nasopharyngeal carriage, serotype distribution and antimicrobial resistance of Streptococcus pneumoniae among children from Brazil before the introduction of the 10-valent conjugate vaccine

Version: 2 Date: 27 May 2013

Reviewer: Yin-Bun Cheung

Reviewer's report:

Major Compulsory Revision

Perhaps the authors do not understand my major comment # 2.

Their revision about sample size and the saying about odds ratio being descriptive were unrelated to my comment.

Despite my comment and explanation that, due to correlated data arising from their study design, their statistical inference (P-values and confidence intervals) was invalid, they continued to use the Chi-square test to provide misleading P-values (and unknown method to provide 95% confidence interval).

I do not think such misleading information should be published. My previous suggestion was: "I would suggest the authors to remove all the p-values and confidence interval and provide a purely descriptive report of their findings from the two sites." Although the authors' reply letter said: "We agree with your comments on statistical analyses", they did not revise the manuscript accordingly.

If the authors think there is a necessity to publish P-values and confidence intervals, they should find a method that does not make the assumption of independence between observations (which is clearly invalid in this study).

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:

No competing interest.