Reviewer's report

Title: Clinical, epidemiological, and spatial characteristics of Vibrio parahaemolyticus diarrhea and cholera in the urban slums of Kolkata, India

Version: 1 Date: 6 August 2012

Reviewer: MIGUEL ANGEL LUQUE FERNANDEZ

Reviewer's report:

BMC Public Health,

REVISION: Manuscript entitled “Clinical, epidemiological, and spatial characteristics of Vibrio parahaemolyticus diarrhea and the cholera in the urban slums of Kolkata, India”

Dear authors,

Please find following for your kind consideration my comments:

Major compulsory revisions

Methods

The Methods section should include a more detailed description of the variables in analysis and the type of study developed (Observational population study with an ecological spatial component analysis –cluster analysis-).

I suggest defining cholera as the principal outcome and mentioning the most important exposures, predictors and potential confounders. If not, probably you should state that you have developed an exploratory analysis of a secondary data source.

In order to asses associations, you have developed a multivariate forward stepwise approach of variables selection. You should specify that table 5 refers to the last model based in your selection algorithm. You should specify that you have developed an exploratory multivariate analysis using and forward stepwise approach.

I suggest adding to the methods sections any efforts to address potential sources of bias in your study as you do when you specified that the analysis has been limited to residential dwellings assigned to placebo.

Finally, I suggest describing how quantitative variables were handled in the analyses and describe which groupings were chosen, and why.

Results

Table 5 show a non-significant factor risk (Individuals living in a household using
safe toilet) although you have stated in the methods section that only significant variables have been chosen in your forward selection algorithm.

Table 5 should show or specify the reference categories for all the variables.

Discussion

Authors should have included a conclusion after the discussion.

I suggest adding in your conclusion what this research is adding to the general knowledge of cholera research after a Public Health perspective. You should use as you did in the introduction section “there is not much information on the differences in clinical, epidemiological and spatial characteristics of diarrhea due to Vibrio Cholerae and V parahaemolyticus from non-coastal areas” in order to justify that you have found some distinctive risk factors and spatial patterns in non-coastal areas.

Minor Revisions

Tables should not show grid-lines between the different rows. I suggest adding in columns’ headings (tables 1 to 3) the following convention:

n(%)