Reviewer's report

Title: Regional-scale synchrony of cholera epidemics in western Africa with climate variability.

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Reviewer: Rita R Colwell

Reviewer's report:

General
This manuscript provides valuable new data and analysis of the interactions of cholera and climate. The authors have done a very good job in collecting the data, selecting appropriate methods for analysis, and arrive at logical, justifiable conclusions. The major contribution is the finding that the selected African countries, subject to severe cholera epidemics, are affected by climate factors with respect to the timing and intensity of cholera epidemics. It is not just poor sanitation, poverty, and unsafe drinking water (all of which contribute to the cholera epidemics) but also climate factors. The work, furthermore, offers a mechanism for prediction of the epidemics.

Answers to specific questions:

1. Yes, the question posed by the authors is new and is well defined.

2. The methods are appropriate and properly described. The details of the methodology are sufficient.

3. The data have been drawn from databases that are publicly available.

4. The manuscript adheres to proper standards for reporting and data accessibility.

5. Yes, the discussion and conclusions are balanced and supported by the data.

6. The title is suitable.

7. The writing is acceptable, but the manuscript needs editing for improved English. That is, the authors are not English speaking as the first language and there are grammatical usages that are more French in tone than English and a good editor can correct this. (I reviewed the manuscript for scientific value and accuracy, not style of writing).

In conclusion, this is a very interesting manuscript of great value to the literature. It requires very minor correction for the English but otherwise is a very appropriate manuscript for BioMed to publish.

I was very pleased to review this manuscript. It was a pleasure to read it and to learn of these new findings.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
Discretionary Revisions (which the author can choose to ignore)