Reviewer's report

Title: Definition and characterization of localized meningitis epidemics in Burkina Faso: a longitudinal retrospective study

Version: 1 Date: 30 June 2011

Reviewer: Matthijs Brouwer

Reviewer's report:

The manuscript by Tall et al describes a new method of identifying meningitis epidemics in Burkina Faso, part of ‘the meningitis belt’ with high incidence of mostly meningococcal meningitis and frequent epidemics. It is an interesting and according to the presented data adequate method of identifying epidemics which can be useful for quick intervention by means of vaccination.

The manuscript is well written and of significant interest to researchers in the field and health care policy makers in the region.

In my opinion there is one crucial issue missing from the discussion, which should be addressed before the manuscript can be accepted. For this method of identifying (localised) epidemics the authors use data from local health centres. The authors should comment on the quality of the reports of suspected meningitis from health centres. If reporting is biased, this may explain the heterogeneity found in incidence rates among health centres of the same district during epidemic years. This may for instance be analysed by looking at the average number of reported cases outside epidemic seasons, which should be comparable if the quality of the reports are similar.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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