Reviewer’s report

Title: Malaria paediatric hospitalization between 1999 and 2008 across Kenya

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Reviewer: Patricia Graves

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It was a pleasure to re-read this paper. I saw even more interesting things in it than last time, maybe because some confusion has been removed or maybe just familiarity. The comments have been well addressed.

The Results section in abstract still needs a bit of work.

1) Sentence 1: malaria admissions remained unchanged in 3 hospitals, not two (as is mentioned in results page 10 and shown in table 3). The marginal decrease mentioned for one hospital is not significant. I would actually reorder this sentence to say ‘declined in x, increased in x and remained unchanged in x’.

2) Sentence 2 and 3: There needs to be some definition of admission rate or units attached to the numbers 0.0063 and 0.0050 (cases per 1000 children aged 0-14 yrs per month?)

3) Sentence 3: It would be good to state “Paediatric admissions for all causes…” just for clarity.

4) Sentence 3 is confusing because paediatric admissions for all causes actually declined significantly at more than 6 hospitals, according to Table 3. If you want to single out a decline in the 6 of >=0.0050 as being important, it would be better to rephrase as “Paediatric admissions for all causes declined significantly and by more than 0.0050 per month at 6 of the 17 hospitals”.

I still think that it would be worthwhile to include the estimates of average monthly incidence in the main paper instead of hiding them in SI 2 Table 1. There is a lot of effort on the trends, but as the authors say in the responses, no one else has gone to the trouble of estimating the denominators for incidences of paediatric admissions so carefully, and therefore the admission rates deserve to be highlighted. I realize they are shown in Fig 2 by time period, but this does not make the same impact. At the very least an overall range for the hospitals should be given in the results text for both malaria and all cause admissions, perhaps in first paragraph of results.