Author's response to reviews

Title: Community-based infant hearing screening in a developing country: parental uptake of follow-up services

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The Editor
BMC Public Health
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Dear Sir,

Revised Manuscript MS: 9229650211913650
Community-based infant hearing screening in a developing country: parental uptake of follow-up services

The authors’ responses to the latest comments of the reviewers and the actions taken are detailed in the attached document.

We look forward to your final decision in due course.

Yours sincerely

Bolajoko O. Olusanya MBBS, PhD, FRCPCH
REPLY TO REVIEWERS' COMMENTS

Reviewer #1 [Christine Yoshinaga-Itano]:
No further changes requested.

Reviewer #2: Note: [Karl White]

1. Of the 45 infants confirmed, how many had fluctuating conductive hearing loss?
   Reply: None of the 45 infants had conductive hearing loss as our diagnostic protocol incorporated tympanometry details of which have been reported in a related article cited as reference 12. We share the reviewer's view that, the prevalence of permanent hearing loss in this population is high and deserves attention particularly against the backdrop of the drop-out rates. This point has been adequately addressed in the related article, which is now published.

Reviewer #4 [Shally Awasthi]:

2. The use of 34 weeks rather than 37 weeks as threshold for prematurity needs to be supported with a reference.
   Reply: 34 weeks is more commonly used for evaluating the risk of hearing loss in infants as the auditory system is considered to have been fully developed after this period. However, from a public health perspective and for easy comparison with other studies on developmental disabilities, the authors have adopted 37 weeks in the revised manuscript. However, this change did not have any effect on our previous results. [see page 8 & Table 3]

3. Numbers of children referred from the 4 screening centres and the drop outs should be provided.
   Reply: We did not conduct a stratified analysis of compliance rates based on screening sites as we did not expect any material differences among the sites because they were all located within a 2 mile radius of this inner-city
environment and screening was conducted by a single team. Moreover, such analysis would have been complicated by the fact that only one site was designated for the second-stage screening with AABR.

4. *Could the failure of mothers who delivered in hospitals to return for follow-up appointment compared to those who delivered outside be attributable to the fact that they had received a different outcome at hospital where they delivered?*

Reply: It is very much unlikely as newborn hearing screening is not yet routinely offered in Nigerian hospitals and certainly not in our study location during the study period. It is perhaps easier to explain why mothers who delivered outside hospitals are more likely seek modern health interventions that are not routinely offered outside hospitals as already stated in the manuscript.[see page 13, para 1].

5. *It will useful to ascertain if place of delivery is a predictor variable using multivariate analysis.*

Reply: Done. We have introduced multiple regression analysis into our methodology and also evaluated the model performance [see pages 9-12]. Mode of delivery still emerged as an independent albeit weak predictor of follow-up compliance, which supports the need for further studies as previously stated in the manuscript.

6. *Since there is just a 4 year difference in age of mothers who returned or did not return, this finding is not likely to have any significant impact on program development.*

Reply: Agreed. This observation is supported by the lack of statistical significance for maternal age in the regression model. As previously stated in the manuscript it may be useful though to further explore this observation in future studies given the reported association of maternal age with follow-up compliance by some other researchers. [see page 13, para 1].

7. *The prevalence of hearing loss may be difficult to determine given the high drop out rates.*

Reply: Agreed. This point is already addressed in our comments for reviewer 2.