Author's response to reviews

Title: Why are children not vaccinated against measles? A cross-sectional study in two Nigerian states

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Author's response to reviews: see over
Response to Dr Pierre Verger reviewer’s report on revised manuscript:

Comment 1
It would be clearer to announce in the abstract and in the method section that the study design is a mixed method research, and to provide at least one reference in the method section.

Response 1
We have added a mention that this is a mixed methods study in the Abstract and at the end of the Background. As requested, we have provided a reference about mixed methods research at the end of the Background.

Comment 2
page 4, line 12: a semi-colon or a dot is missing after "illnesses".

Response 2
We have added a full stop after “illnesses”

Comment 3
page 6, second line from the bottom: an "s" should be added to "mother".

Response 3
We have added the “s”

Comment 4
pages 6-7: the first paragraph of the result section remains unclear: the authors do not provide an explanation in the manuscript why about 14000 children were identified in Cross River and only about 2800 were included in the survey.

Response 4
The difference in numbers is because the smaller number refers to children aged 12-23 months, who are a sub-set of the total children aged under 4 years. We have added some words to clarify this further.

Comment 5
page 7, line 16: "9% of women" instead of "9 of women".

Response 5
We have added the missing “%”

Comment 6
page 7, second line from the bottom: the expression "more than twice as likely" is not, strictly speaking, appropriate as the authors have calculated odds ratio which are not good estimations of relative risks when the behaviour studied (here vaccination) is not rare. This should be corrected here and at several other other places in the manuscript.
Response 6
We agree that the OR and RR (rate ratio) are different when the outcome is not rare. However, we prefer to keep the wording as it stands. This is a very common and accessible way of expressing the OR and we do not think it is misleading.

Comment 7
page 8, lines 3-6: the sentence "factors of parental education... vaccination status." should be rewritten in a clearer way.

Response 7
We have re-worded slightly for clarity.

Comment 8
page 11, second paragraph, first sentence: the term "determinant" is not appropriate: as the authors mention in the Limitations paragraph, the study is cross-sectional and they cannot draw definite conclusions about causality.

Response 8
We have re-worded to avoid the use of “determinants” and mentioned instead factors “associated with” vaccination.

Comment 9
table 2: the authors should add in the title or in a legend that they performed logistic regression; same remark for table 3.

Response 9
Table 2 shows bivariate associations. We have added a footnote to table 3, to mention that the multivariate analysis used the Mantel Haenszel procedure, with cluster adjustment (as explained in the Methods section).