Reviewer’s report

Title: Inequitable Childhood Immunization Uptake in Nigeria: A Multilevel Analysis of Individual and Contextual Determinants.

Version: 2 Date: 11 May 2009

Reviewer: Julie A Bettinger

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Major Compulsory Revisions
1) Author should indicate how the reference groups were selected in each category and the justification for this.
2) Author should indicate how missing data were handled, which categories had missing data and the amount of data that were missing.
3) How was each low, middle, high category for the difference variables defined? How were they chosen? For example what does a mother’s education that is low mean? What does high education signify?
4) Author needs to describe the limitations of the work.
5) The author is not presenting new information; therefore the relevance of the findings needs to be more fully discussed.
6) The author mentions looking at the association between migration and the risk of under–five deaths, but does not provide any background as to why this is relevant. Nor is it explored in the tables. It in only briefly touched upon in the discussion. The relevance of the death/migration link needs to be further explained.
7) The author needs to more fully develop the link between immunization and prevention of childhood mortality in the background and discussion. What percentage of childhood deaths could be prevented with full or partial immunization?

Minor Revisions
1) Immunization is not a risk. The author needs to reword phrases such as “risks of immunization” and “increase the risk of a child being fully immunized…” to something such as greater likelihood of immunization or greater probability. I understand the author is using this in the statistical sense, but the majority of readers may not.
2) What does the other ethnicity group consist of? This should be added to the methods.
3) Model 2 and Model 3 results should be clarified in table 2.
4) Last paragraph page 7 “…vary in order to investigate whether their effects are difference across contexts.” Define contexts.
5) Page 8 add reference group to the sentence “…immunization compared with the reference group (children of birth order…”

6) Middle of page 8 typo in “(OR = 0.62, 95%...” should be 0.62.

7) Page 9 add which table model 3 results are in.

8) Discussion 1st paragraph “socio-economic characteristics are important in explaining the differences” (not differentials).

9) The description of Igbos as enterprising seems very subjective. Entrepreneurial may be a better word choice. Also “enterprising potentials” is not correct. Delete this from the sentence.

10) Page 10 2nd paragraph 1st sentence should be economic potential, not economic potentials.

11) Page 10 last paragraph. Use another, non-statistical term to explain “demand factors”.

12) 1st sentence in conclusions: delete generally. It should read “…the need to close individual and community level disparities,…”

Discretionary Revisions
1) Put the immunization schedule information in the introduction into a table, rather than text. The table could then be referenced in the methods under outcome (page 4) at the description of the 8 required vaccinations.

2) There are too many abbreviations. PSU (page 5) should be written out. Author should review other abbreviations and determine which are really necessary.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

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.