Reviewer’s report

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

Version: 2 Date: 15 May 2009

Reviewer: Belinda J Loring

Reviewer’s report:

* Major Compulsory Revisions
1. In the conclusion, maternal education is singled out as an urgently indicated intervention, yet this study found no statistically significant association between maternal education status and immunization. Whilst this statement may be supported by other research, it is not a conclusion that can be drawn from this study.

* Minor Essential Revisions
1. Consistent capitalisation (of Measles or measles)
2. Word "militating" (last paragraph of introduction) ="mitigating"
3. Abbreviation of PSU not defined when first introduced in the article
4. Number of minor English language and typographical errors throughout article which require revision

* Discretionary Revisions
1. Use of the word determinant (in stating that having a hospital delivery was a determinant of full immunisation status) - consider "associated with" rather than determinant in this context
2. Consider rephrasing the description of certain ethnic groups as "enterprising" as this is value-laden
3. The authors mention that ethnic disparities may be explained by socioeconomic differences - it would be helpful if their model could then test this by assessing the effect of ethnicity on immunization status controlling for socioeconomic position
4. The limitations of the study are not clearly stated.
5. The authors suggest a number of social and situational factors in the discussion which may explain the disparities, and I would consider addressing these social determinants of immunization status at least as important as increasing the % of hospital deliveries etc. I would have thought that the percentage of hospital deliveries is at least partly a proxy measure of access to health services in general, and that communities with less hospital deliveries also have lower immunization status because they have less access to health care in
general (for socio-economic and geopolitical determinants the authors refer to in their discussion). This could be strengthened in the article.

7. In Table 1, consider tallying the percentages according to the variable of the left hand side (rather than the other way round). I would find it more useful to know what percentage of male children, or children of single mothers were immunised, rather than what percentage of the immunised children were male etc.

Level of interest: An article of importance in its field

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

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests