Reviewer's report

Title: Migration and Child Immunization in Nigeria: Individual- and community-level contexts

Version: 1 Date: 14 May 2009

Reviewer: Jean-Christophe Fotso

Reviewer's report:

The paper explores a subject of great interest using state-of-the-art methodologies and nationally representative DHS data. The analytical strategy and the interpretation of results are commendable. The author needs to address the following issues for the manuscript to be accepted for publication.

Major Compulsory Revisions

Background/Introduction: There is poor linkage or even confusion between the background and the introduction sections. First, a manuscript will typically start from the general to the particular (in this case, Immunization in Nigeria). Second there are some inconsistencies in the background, one example being the 6th line in the background section (global immunization coverage exceeding 70% in the 1990s). Third, the “high political will of the government” is mentioned (last but one line on page 1) without any illustration or evidence. Fourth, the last paragraph on page 2 seems problematic: What does the first sentence (Rapid urbanization … could be explained) mean? The author mentions the need to assess changes in urban-rural differentials, yet the paper does not address the issue. The theoretical framework, though relevant, does not seem to be the basis of the analysis: What variables will capture selectivity, disruption and adaptation. Overall, the paper will gain a great deal of clarity and focus if this section is re-written in a more coherent and articulated way.

Data/Methods: Too much detail given on data collection of the Nigeria DHS, most of this information is not necessary as it is already in the public domain. Without any inclusion of the length of stay of migrants, the results of the analysis may not be convincing. A mother who migrated 9 years ago to a city has probably had chance to rebuild her network, while a recent migrant mother would face the problems of adaptation and disruption highlighted in the theoretical framework. The author fail to justify the selection of the community-level covariates: Why are the percentages of hospital delivery, prenatal care by doctor important as determinant of child immunization?

Results: Referring to 58.6% for urban non-migrant (in table 1) as “higher proportion” while 73.1% of rural non-migrant’s children had BCG may not be correct. More generally, the fact that author does not describe and comment the higher likelihood of rural non-migrant’s children to be immunized, but only focus on comparing the urban non-migrant with the rural-urban migrant seems to be a
major flaw in the interpretation of the results. Table 2 should just be a footnote of Table 3.

Minor Essential Revisions
The writing style may be improved; there a number of repetitions which may be avoided without loss of clarity.

Discretionary Revisions
None

**Level of interest:** An article of importance in its field

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

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests