Reviewer's report

Title: Determinants of rates of Non-Exclusive breast feeding in Nigeria

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Reviewer: Ken K Ong

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Agho and colleagues present a very interesting study which describes the prevalence of exclusive breastfeeding (EBF) and its individual and household level determinants in Nigeria at ages 0-5 months using data from a national cluster sample survey with extremely high response. They find that higher rates of EBF are associated with younger infant age, female infant gender, middle class, antenatal clinic visits and North Central region residence.

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

1. Figure 1 shows that, in contrast to many other settings, non-EBF largely comprises the use of additional water at age 2 months, and also complementary feeds at age 5 months, rather than alternative sources of milk (i.e. infant formula milk). This should very clearly stated as it has great relevance to the nature of interventions to promote EBF.

2. The authors discuss “This study is supported by [14, 15]... but contradicts the finding of [16]”. They should acknowledge that [16] is an RCT, while [14], [15] and the current study are observational studies which are open to confounding. For example, higher EBF in mothers who attended antenatal clinics and delivered their babies in hospital could be due to unmeasured confounding factors rather than causal effects of those health service contacts.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

3. The presentation of the results (e.g. abstract) is confusing in that higher EBF is indicated by odds ratios < 1 and vice versa. This should be easily rectified by recoding the response variable.

4. The abstract conclusion discussing peer counselling interventions to support EBF are not relevant to the current study.

5. In the discussion, provide references for the statements ‘The efforts of the world community to reduce high infant and child mortality ....have succeeded in some parts of the world but have remained unsatisfactory in Nigeria.’ and ‘EBF rates in Nigeria were.... one of the lowest in the world.’

6. There are several grammatical and spelling errors.
Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

7. A further notable finding is the marked apparent protective effect of EBF on diarrhoeal disease and respiratory infection. If space permits, further analysis to show (un- / adjusted) odds ratios would be extremely valuable.

**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.