Reviewer's report

Title: Individual and community determinants of neonatal mortality in Ghana: a multilevel analysis

Version: 2 Date: 10 December 2013

Reviewer: Kavita Singh

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Major Revisions

1) This paper is only focused on married women as it stands. This needs to be stated clearly and also any limitations with focusing only on married women need to be stated.

2) An updated estimate for neonatal mortality is 2.7 million deaths. (Ref: 1.UNICEF. Committing to Child Survival: A Promised Renewed. 2012. UNICEF. New York.)

3) On p.3 health service factors are mentioned as important - delivery and PNC. These two factors could be considered the most proximate to neonatal mortality as many neonatal complications arise during or immediately after labor/delivery. Thus the importance of delivery with a properly trained birth attendant and PNC. It would be important to stress these two factors more throughout the paper. For example the maternal health seeking variable could focus specifically on the interventions most directly related to neonatal health (tetanus immunization, ANC, skilled delivery and possibly PNC though then it may be heard to include deaths on the first day of life). ORS may not be so relevant with such earlier deaths and having a health card is not a direct intervention.

4) What does the literature indicate about using the small, average, large to estimate birthweight? This is a rough estimate, and there is likely some literature indicating that this is not particularly accurate. This needs to be highlighted as a limitation.

5) Some neonatal may have died within minutes, before it would have been possible for them to have been breastfed. Thus should be highlighted as a limitation of the variable.

6) As written, the discussion is focused on general interventions. Though the community-level interventions are important, there also needs to be a focus on specific interventions for newborns. Getting more women to have a skilled delivery and providing PNC to newborns are crucial interventions. Think about how your analyses could fill a gap in our understanding of how to prevent neonatal mortality.

Level of interest: An article of importance in its field

Quality of written English: Acceptable
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.