Reviewer’s report

Title: Maternal undernutrition as proxy indicators of their offspring's undernutrition: Evidence from 2011 Ethiopia Demographic and Health Survey

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Reviewer: Chittur S Srinivasan

Reviewer’s report:

This paper examines the use of maternal undernutrition as a proxy indicator for child nutrition status. While maternal undernutrition can be an important determinant of (or strongly associated with) child undernutrition, I am not convinced of the underlying premise of the paper that (1) maternal undernutrition can be a reliable predictor of child undernutrition and (2) it would be useful to develop maternal undernutrition as a "screening tool" for child undernutrition. Most conceptual frameworks that explain child nutritional status (including the UNICEF framework) recognise the role of maternal nutrition and health in explaining child nutrition outcomes (e.g., via low birth weight or other pathways). However, these frameworks clearly identify several proximal and underlying determinants of child nutrition status. The contribution of these proximal and distal determinants to child nutrition outcomes may vary by setting or over time, but in the presence of a large number of confounding factors, it very unlikely that maternal undernutrition can be a reliable predictor of child nutritional status. Unsurprisingly, the authors find from their analysis that maternal undernutrition is a poor predictor (or classifier) of child undernutrition status. The advantages of using maternal undernutrition as a "screening tool" are also not clear. In situations where the nutritional status of mothers can be assessed using anthropometric measures, it should generally be possible to assess the nutritional status of children directly through anthropometric measures without relying on proxy indicators.

If maternal nutrition is not a good predictor of child nutritional outcomes, it cannot be inferred (as the authors appear to have done) that the intergenerational cycle of malnutrition is not an important issue to be addressed in developing countries. Maternal undernutrition may in many settings be an important driver of child nutrition outcomes alongside other confounding factors. The results of the analysis do not provide evidence of prevalence or absence of inter-generational cycle of malnutrition.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes
Are the conclusions drawn adequately supported by the data shown?
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No

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I am able to assess the statistics

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