Reviewer’s report

Title: Determinants of Low Birth Weight in Nepal: Comparison of National Surveys 2006 and 2011

Version: 1 Date: 29 July 2013

Reviewer: Jean Tafforeau

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Major Compulsory Revisions

Methods

1. Not clear how the index child has been selected within the households
2. Analysis didn’t take into account the sampling design … why not? And why do you think that this is increasing the wide of the confidence interval (as said in the discussion)?
3. Table 1 : the heading “LBW n [%]” does allow to understand on the % has been calculated; what is the numerator and what is the denominator? In addition a p value is presented but it is not clear what has been tested exactly!
4. Tables 1 and 2 : these tables are very long, extensive and detailed … is it necessary to keep them? Could it be shortened?
5. The whole analysis rather seem to be a fishing expedition where all the possible variables have been analysed … proceeding so you will always find some significative relation by chance ; could you rather limit the study to those variables that have already shown a link with the outcome (low birth weight) in other studies (in Nepal or in neighbouring countries) … as you claimed to do in your chapter “definition of variables”?
6. Not very clear to me if the way to compare between 2006 and 2011 the factors influencing low birth weight is correct, statistically valid. Why did you not add the survey year in the model?
7. In addition, as there are a lot of different variables included in the model some of these could be inter correlated and impair the validity of the models
8. In addition you never mention the possibility of interactions : did you verify the interaction terms ?

Discussion

10. It seems from your discussion that the only / main explanation of the stable prevalence of low birth weight is related to the prenatal care … don’t you think that there could be a lot of factors that could explain this tendency (including the general socio-economic situation of the country) and that others actions could also could also be promoted besides the prenatal care?

Minor Essential Revisions
Methods
1. Not clear why you decided to exclude multiple births, please explain further
2. Please explain further how you proceeded to register the birth-weight: sometimes self-reported? sometimes from the medical card? Did you analyse the difference between the two sources?
3. Not clear what is the concept covered by the item “ethnicity” and how/why you can consider from that information that the mother is belonging to a group of disadvantaged people
4. BMI – height and weight: have they been reported or measured?
5. Haemoglobin: reported or measured?

Results
6. Would add a statistical test to compare the % of Low birth weight between the two years

Discussion
7. The text need some revision as far as language and spelling is concerned
8. You speak about a national plan for safe motherhood and child survival but give the impression that nothing is foreseen in this plan to decrease the low birth weight … is this possible?
9. You are focusing your discussion on prenatal care as it is included among the variables in the models but could it also be considered as a proxy for the socio-economic level of the women and for the health care accessibility of the participants?
10. Could not understand the explanation about the relatively high level of low birth weight in the eastern region; how can this be related to the fact that more birth weights could not be reported?

Level of interest: An article whose findings are important to those with closely related research interests

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