Reviewer’s report

Title: Socioeconomic factors and low birth weight in Mexico

Version: 3 Date: 12 November 2004

Reviewer: AA Silva

Reviewer’s report:

General

Although this new version of the paper has improved from the previous version, the manuscript still lacks a clear focus on its main question (the role of socioeconomic factors on LBW). In the present version the paper is not suitable for publication.

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

The introduction was reduced and some parts not connected to the question were deleted. However, the 2nd paragraph of page 4, beginning with “Studies of the social...” has no relation to the authors’ question. In the last paragraph of the introduction the authors stated that “although many socioeconomic factors related to LBW have been identified, the specific role of each is not known...” and later on they say “interventions aimed at reducing LBW have had limited success...”. The reader comes with the impression that these two topics will be answered in their manuscript which is clearly not the case. The introduction needs to be focused on the question.

In the abstract the authors stated that they will describe maternal and socioeconomic factors related to LBW. However, in another part of the manuscript they say that they studied also demographic, reproductive and health service variables (accessibility of health services and prenatal care). They need to state clearly what they had really studied. In the paper there is a conflict between two objectives: sometimes the reader may think they are studying various factors related to LBW, sometimes the reader may have the impression that the authors are focusing on the role of socioeconomic factors on LBW. This tension need to be resolved because it hampers a perfect understanding of the paper and blurs its message.

The conclusion stressed in the abstract is too vague. In the conclusion it is better to state the significance of their results instead of saying generally that further research is needed. The reader may come with the impression that the paper is not worth reading.

Methods section improved. However the authors need to say how they defined accessibility to health services. Please check sample size calculations because a 13% difference on LBW is too big. I suspect of a typing error. Do you mean to say 3%?

I still think the socioeconomic classification you have used is too broad and prone to misclassification error. In this case you need caution on your interpretation and you must state this limitation clearly or the discussion.

The strategy the authors used to verify the role of socioeconomic factors on LBW is not appropriate. In model 1, possible collinearity between socioeconomic level and maternal education makes it difficult to disentangle the effect of each variable on LBW. In addition, addressing the role of socioeconomic level on LBW adjusting for possible mediators (maternal age, marital status and
accessibility to public services and others in models 2 and 3) is not correct. Mothers of low socioeconomic level may have more children with LBW because they were younger, unmarried and had less accessibility of health services. In this case the effect of socioeconomic level will tend to be underestimated. If a variable is on the pathway between the independent and the dependent variable it does not fulfill the criteria to be considered a confounder.

Although the authors in their reply to the reviewer’s comments acknowledge that the relationship between socioeconomic factors and LBW is not controversial, they still say in the 2nd paragraph, page 7, that “conflicting results about the effect of socioeconomic factors on LBW are.” Please be more specific on what you mean to say and cite appropriate references to make our point clear.

The last paragraph of the discussion is again too vague. I expected that in this paragraph the authors would state clearly the main conclusions and importance of their work. The conclusions stressed here, although seem correct, are not supported by their data, because they did not studied the role of nutritional interventions on LBW (that was not their question).

It is still not clear the rationale behind the use of three different models. The authors did not explain why they included for example, maternal education in the first model and not in the second, why they included previous preterm birth in the third model and so fourth. What are the assumptions behind this strategy?

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests