

Reviewer's report

Title: Low Birthweight and Socioeconomic Factors in Mexico.

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Reviewer: Hai N Phung

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General Comments

In this manuscript the authors aim to investigate the relationship between maternal socio-demographic factors and the weight of newborn in three hospitals from different geographic zones in Mexico City. Although there is definitely need for further research on determinants explaining LBW, I have major concerns about this manuscript.

Data and methods

I understand that the data collection comprised data from three hospitals with gynaecological and obstetrics services in Mexico City: two from the Mexican Institute of Social Security and one from the Ministry of Health during 1997. Is this include all births during 1997 for these above mentioned hospital?, if not is this a consecutive or random sample from the 3 hospital?

More details about the matching criteria are required. What information of the mothers as well as the infant were matched (ie. Age of the mother, clinical condition, social economic status, and geographical factors..) What the authors mean by "next newborn" in the sentence "Once a case was identified controls were chosen from the next newborns..."

In relation to data definition and measurement, I have the following comments:

- LBW had been defined as less than 2500g, however, do the authors consider small for gestational age? (i.e, preterm birth and less than 2500g).
- Why the authors group all parity>1 in one group, as number of parity had been shown as an independent factor influent birth weight.
- The definition of occupation needs clarification (in table 1 as Housewise &Employed, in table 4 as "Out of home")
- The Obstetrics & Gynaecology history of the mother need more information. For example previous preterm and/or LBW account for all previous pregnancy or only the immediate previous pregnancy as pregnancy interval as well as birth order play an important role in pregnancy outcomes research.

Data analysis/results

Unless I am missing something important about statistical method for this article, I find the method is very confusing (which consequently leading to the results and discussion sections need further works).

First of all the authors want to test the association of socio-economics and reproductive variables and LBW. "After evaluating the confounders one by one those with biological and social plausibility were chosen to be included in the final model as well as those that were statistically significant ($P < 0.05$)". I assume that the authors try to univariately and multivariately analyse the data to assess the association of socio-economics factors and LBW. If that the case, data analysis and results need a major review. For example univariate results of all potential factors (from Socio-economic, health services utilisation, social strata, reproductive domain), which influence LBW with significant level need to be presented then adjusted (multivariate analysis) results to follow. In addition, justifications for 3 models need more information. I thought the final model, which I assume would taking to account for all of potential influence factors for LBW.

CONCLUSION

I think that extensive revision of this manuscript is needed before it is resubmitted.

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

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: Needs some language corrections before being published

Statistical review: Yes

Declaration of competing interests:

NONE