Reviewer's report

Title: Correlates of low birth weight: a retrospective study from Iran

Version: 1 Date: 28 January 2008

Reviewer: Elena Fuentes-Afflick

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Major Compulsory Revisions

1. Abstract Background: It would be helpful to place the study in context. For example, does Iran have relatively high or low levels of LBW compared to neighboring countries? While it may be important to study the Iranian experience without such information, it would be helpful to have a scientific basis for the study. Similarly, please explain why it is important to study the Tehran experience. Perhaps Tehran has relatively high or low rates of LBW, and that is the underlying justification to focus on births in Tehran.

2. Abstract, Methods: Are university hospital representative of all births in Tehran? In Iran? This should also be addressed in the discussion and limitations sections.

3. Abstract, Conclusion: Could you put the results in context so that the reader understands if the determinants are similar to other populations, more strongly associated, or less strongly associated? Or how the results for Tehran compare to the remainder of Iran? Such a statement would strengthen the conclusion section.

4. Background section: The background section is lacking a discussion of the importance of the study population in Iran. While paragraph 1 ends with a statement about national variation in LBW rates, Iran is not specifically mentioned. Please add more information to justify why you chose to study births in Tehran. Was it to document the experience of women in Tehran or was the decision based on a public health or clinical problem?

5. Methods Section, Page 3, Paragraph 4, line 3: Why was the study restricted to married women?

6. Page 3, paragraph 4, line 4: The restriction of gestational age ≥36 weeks is introduced for the first time. Please incorporate the importance of gestational age into the background section.

7. Page 4, Results Paragraph 2, final line: How can you say that education was not associated with LBW in the first part of the sentence and follow with a statement about an elevated risk among less educated women? The same type of statement is made for place of residence.

Minor Essential Revisions

1. Abstract, Lines 2-3: the phrase pregnancies that had been ended in the hospitals should be rephrased.
2. Line 5: please change number of delivery to number of deliveries

3. Line 5: consider replacing mothers previous longstanding diseases with maternal chronic diseases

4. Lines 6-7: The statement about analysis implies that the sociodemographic factors are the focus of the analyses, but reproductive and community factors were listed as study variables. If the analyses were restricted to sociodemographic factors, please explain why the other factors were excluded.

5. Abstract Results, Line 2: I would suggest placing the clause significant risk factors for low birth weight at the beginning of the sentence since the sentence is long and hard to follow.

6. Abstract, Lines 4-5: does blood pressure mean hypertension?

7. Abstract, Line 6: please remove the comma after although place of residence was not significant and consider rephrasing as Although place of residence was not significant

8. Abstract, Line 8: I don't understand the meaning of the phrase for pregnant women who had or were referred from suburbs of Tehran. Is there a word missing after had?

9. Background, Page 3, Paragraph 1, line 2: I would suggest substituting the word defined rather than identified.

10. Page 3, Paragraph 1, line 3: please change %16 to 16%. This applies throughout the manuscript.

11. Page 3, Paragraph 2, line 1: Do you mean important risk factors or an important risk factor? Please clarify

12. Page 3, Paragraph 3: Please be consistent in using either low birth weight or LBW. While the acronym is used in paragraph 2, it is spelled out in paragraph 3.

13. Page 3, Paragraph 3, line 2: the phrase ending their pregnancies is often used for abortion, not delivery. Please consider rephrasing.

14. Page 3, Paragraph 4, line 4: Please change the phrase terminated their pregnancy (see above)

15. Page 4, Paragraph 1, lines 4-5: Could you please add more information about how defined IUGR and SGA, including citations? This is a complex issue and it would be helpful to know what definition you used as well as what data.

16. Page 4, Paragraph 2, Line 3: Did you establish a lower birth weight limit for the LBW category? Some authors prefer to establish a cutoff around 450-500 grams since some extremely low birth weight infants may actually be misclassified (350 grams, for example, may actually be 3,500 grams).

17. Page 4, Results Paragraph 2, Line 1: I would suggest substituting the statement The results of the regression analysis are presented in table 2 with a sentence that presents a specific result from the table.
18. Page 5, Discussion Paragraph 1: The finding about maternal age is interesting and validates the results from other studies. Could you comment on the magnitude of your finding and how that compares with other studies?

19. Page 5, Discussion Paragraph 2: Could you please elaborate on the importance of a history of LBW deliveries and compare the magnitude of your finding to other studies?

20. Page 5, Discussion Paragraph 3: Are there any issues around pregnancy smoking that are unique for Iranian women? What are effective strategies to reduce pregnancy smoking and do these vary by country?

21. Page 6, Paragraph 2, Lines 6-8: Do you have data on weight gain that you could analyze in the current study? You mention another study that found a significant effect of weight gain but you don't go further in terms of your findings.

22. Page 6, conclusion: The element of quality of care is intriguing and should be explored in further depth.

23. Table 1: please substitute "Number" for "No.

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: Not suitable for publication unless extensively edited

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.