Author’s response to reviews

Title: Influence of weight gain, according to Institute of Medicine 2009 recommendation, on spontaneous preterm delivery in twin pregnancies

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To
Editor-in-Chief
BMC Pregnancy and Childbirth

RE: Ms. No. PRCH-D-16-00410R1 - Influence of weight gain, according to Institute of Medicine 2009 recommendation, on spontaneous preterm labor in twin pregnancies

We thank the Reviewer for his helpful comments that enabled us to improve our manuscript.

Listed below is a detailed response to the comments, and attached are the files of the revised version of the manuscript. We hope you find the revised version of our manuscript suitable for publication in BMC Pregnancy and Childbirth
Reviewer #2 (Margaret L. Holland, PhD, MPH)

Comment #1: While this topic remains important and interesting, I do not feel the revisions are sufficient to support publication at this time.

Response to Comment #1: We thank the Reviewer for acknowledging the interest of the topic developed in our manuscript. We will address all comments providing a point by point answer as per editorial guidelines, in order to further improve our manuscript.

Comment #2: The introduction is choppy, with short paragraphs (1 to 2 sentences)

Response to Comment #2: We agree with the Reviewer and reorganized this section rephrasing the short paragraph in order to improve its readability.

Comment #3: How common are induction and elective c-section in these births? It would be helpful to know how many births were excluded due to these reasons. If they are frequent, this may introduce bias.

Response to Comment #3: Among all twin pregnancies delivering at our Institution, the rate of elective cesarean section is 4%, while the rate of induction of labor is about 15%. We decided to
set induced labor and elective cesarean section as exclusion criteria in order to avoid a potential source of bias. Although reducing the generalizability of our results to all twin pregnancies, our conclusions are valid for the population of diamniotic twins, as described within the Discussion section.

Comment #4: The change to using pre-pregnancy weight from the first prenatal assessment (instead of self-report) is not clear in the manuscript. Because pre-pregnancy weight is a key variable, it should be explicitly stated how it was assessed.

Response to Comment #4: We have addressed this concern from the previous round of comments, answering to comment#4 of the Reviewer#1. We did use self-report of pre-pregnancy BMI but at the same time attempted to reduce the risk for recall bias with an early assessment of pregnant women by obstetric booking that is performed, at our medical center, before 8 weeks of gestation. We addressed this issue within the Materials section of the previous version of the manuscript, but since we understand the concept is not adequately developed yet, we performed an additional review of this concept in the revised version of the manuscript on page#6 of the Materials section that now reads “Since self-report of pBMI can be affected by recall bias, we attempted to reduce the risk of bias with an early assessment of pregnant women as described above”.

Comment #5: The issue of assuming weight gain is linear was not addressed in the manuscript, and only nominally in the response to reviewers. It should at least be discussed as a limitation. It could also be addressed through sensitivity analyses.

Response to Comment #5: We thank the Reviewer for this comment and included this aspect within the paragraph describing Strengths and limitations of the study that now reads “In addition, since there were no data regarding weekly weight gain cutoffs for twin pregnancies in IOM recommendations, we decided to apply linearity to weekly gain cutoffs as performed within IOM recommendations for single pregnancies”.

Regarding the possibility to build a sensitivity analysis, we had a thorough discussion with our statistician, but concluded that this analysis would be affected by several limitations, the first and most important that gestational age is both our primary outcome as well as involved in weight gain.

Comment #6: Minor: There was some improvement in the writing in this revision, but many errors remain.
Response to Comment #6: We thank the Reviewer for this comment and asked an additional linguistic revision that was performed by a proof reading professional service, in order to further improve the writing and bring it to a level that might be suitable for publication.