Date: Jan 04, 2019
To: "Maisa N Feghali" [redacted]
From: "The Green Journal" em@greenjournal.org
Subject: Your Submission ONG-18-2248

RE: Manuscript Number ONG-18-2248

Timing of Gestational Weight Gain and Adverse Perinatal Outcomes in Overweight and Obese Women

Dear Dr. Feghali:

Your manuscript has been reviewed by the Editorial Board and by special expert referees. Although it is judged not acceptable for publication in Obstetrics & Gynecology in its present form, we would be willing to give further consideration to a revised version.

If you wish to consider revising your manuscript, you will first need to study carefully the enclosed reports submitted by the referees and editors. Each point raised requires a response, by either revising your manuscript or making a clear and convincing argument as to why no revision is needed. To facilitate our review, we prefer that the cover letter include the comments made by the reviewers and the editor followed by your response. The revised manuscript should indicate the position of all changes made. We suggest that you use the "track changes" feature in your word processing software to do so (rather than strikethrough or underline formatting).

Your paper will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by Jan 25, 2019, we will assume you wish to withdraw the manuscript from further consideration.

REVIEWER COMMENTS:

Reviewer #1: This manuscript has a purpose to "evaluate the impact of insufficient or excessive gestational weight gain in the first and second trimester on adverse perinatal outcomes, and whether weight gain in the third trimester modifies these risks." This was a retrospective, cohort study using an institutional database, which the authors validated by randomly selecting 300 subjects and manually confirming data in the database.

1. Could the authors please include a 'Precis' for their manuscript?

2. The authors describe BMI and suggested gestational weight gain for the different categories for overweight and obese. Could the authors construct a table with the WHO definition of all the various BMI categories (underweight, normal, overweight, obese) in one column and suggested weight gain for each category in an adjacent column and reference in text?

3. How was gestational age determined? How accurate was determination of gestational age? Was gestational age at birth determined by the Pediatricians with a Ballard score?

4. The authors note that they performed a validation survey by manually abstracting a randomly selected group of 300 charts. How was randomization performed? Why did they select a n=300 charts to validate their database?

Reviewer #2: Slight revision-please change "fetal gender" to "fetal sex" in line 145 [gender is a social construct, sex is a biologic construct].

Reviewer #3: This is a retrospective cohort study of over 5000 obese women that examined their weight gain as of 24-28 weeks and relationship to adverse pregnancy outcomes. The manuscript is well written.

Line 72: IOM is now the National Academy of Medicine

Line 77: "weight gain 11 pounds" I think is missing 'less than' as in weight gain less than 11 pounds

Figure: Consider saying you excluded under or normal weight women instead of "Not overweight or obese"

Reviewer #4: The authors present a retrospective cohort study on how the timing of gestational weight gain affects infant size. The paper is very timely and important. However, there are some major issues that need to be addressed:

1) The primary objective of the paper is stated as the affect of gestational weight gain on adverse perinatal outcomes. While composite neonatal morbidity is defined in the methods, the actual neonatal outcomes are never given in the results or discussion. According to Table 2 only, there were no differences. A more appropriate primary outcome would be to narrow it to infant size and not the broader adverse perinatal outcome as this really isn't addressed in the paper. This change should also be reflected in the title.

2) Weight gain in the second trimester was defined as adequate, insufficient or excessive as based on IOM guidelines. However, in the third trimester, the authors created their own definition based on median weight gain in their patient population stating the definition in the third trimester is too narrow. This makes no sense. The definition is exactly the same as the second trimester. Why did they not use 6 to 8.4 lbs as adequate based on the 12 weeks of the third trimester and below or above for insufficient or excessive for overweight and 4.8 to 7.2 lbs for obese? Their use of 11 lbs is significantly higher than what is recommended for either overweight or obese women and they don't have an adequate weight gain category for comparison. This makes the paper less generalizable and confusing.

3) Please define the classes of obesity in the methods.

STATISTICAL EDITOR COMMENTS:

The Statistical Editor makes the following points that need to be addressed:

lines 50-56: As space permits, should cite how many women were in each of the GWG strata and what proportion had adverse outcomes. This would help to give context to the aOR estimates.

Table 1: Need units for BMI. For GCTs, the results are in terms of glucose, should label as such, not just as mg/dL.

Table 3: Rather than just using a new definition (based on threshold of median wgt gain for this cohort), should first show the analysis based on the three strata as generally defined for GWG, then supplement with the Authors analysis of their median 3rd trimester GWG as a binary variable. Since the Authors state that the standard middle category of adequate GWG was small (lines 135-136), the finding of association of LGA with highest GWG should still hold, and the more complex association of SGA vs 3rd trimester GWG may be confirmed. As currently written, the results may not be generalizable to other populations with a different distribution of 3rd trimester GWGs.

Fig 1: The missing data for prenatal visit 24-28 wks (~15%) of women, has the potential for biasing the estimates.

EDITOR COMMENTS:

1. Thank you for your submission to Obstetrics & Gynecology.

This analysis has made it past our decision to not publish work that shows more weight gain makes bigger babies, and low weight gain begets smaller babies because you have offered an analysis that is potentially actionable.

There are two areas I particularly want you to address in your revision, should you choose to revise your paper. One of these is addressed in my comments on the PDF.

a. As I re-read the IOM recommendations for weight gain in pregnancy for this review, I find a set of recommendations for weight gain in the 2/3rd trimester based on degree of over-weight and obesity. I don't see one for the first trimester although you've analyzed Trimester 1 and 2 together by their standard. I'm not sure I understand that.

b. You used the median of the weight gain range in your population for determination of adequacy of weight gain because you had small numbers using the IOM numbers and it would make comparison impossible for that range. It's find to use this UPMC-based analysis but we would like you to include the comparison directly of inadequate and too much weight gain

using IOM standards (explaining that the mid-range was too small to use). That's just the way your data fell and its not really necessary to develop an alternative.

Please review and consider the comments here and in the PDF prior to submitting your revised manuscript. These comments should be included in your point-by-point response cover letter.

The notated PDF is uploaded to this submission's record in Editorial Manager. If you cannot locate the file, contact Randi Zung and she will send it by email - rzung@greenjournal.org.

- Impact implies a blow, or strike. We prefer a different term--perhaps associative in nature since you lack causal relationships.

- The objective for the abstract should be a simple "to" statement without background.

- perhaps "our aim was to evaluate" or even better "to evaluate...."

- where were these patients? Single institution? How were they identified?

- need to define how sufficiency etc were defined.

- again, please use associative language.

- this sentence seems to be missing a word. is it "either weight loss or weight gain of less than 11 lbs...?

- what is essential neonatal fat mass?

- When you write that a study occurred between date 1 and date 2, it literally excludes those boundary dates. For instance, “This study was performed between Feb 2018 and Jan 2019” would mean it was performed from March 2018 to Dec 2018. Do you instead mean that the study was performed from date 1 to date 2? If so, please edit.

- did they all deliver at UPMC?

- is this a validated database?

- Where did these recommendations come from ? In the IOM 2009 report (Table S-1) there is no break down by trimester for weight gain recommendations--2nd and 3rd trimester are "lumped" and there is no 1st trimester recommendation. Overall for overweight women mean range of gain in 2nd and third is 0.6 lb/week (0.5-0.7) and for obese women its 0,.5 lb/wk ().4-0.6). If I do this calculation for an obese women, by 24 weeks, she would have already gain 11.6 lbs (4,4 +0.6 x 12). Isn't that more than adequate?

- please clarify: an overweight women

- please explain why you did not use IOM recommendations but developed values based on what your population did?

- please clearly define what you mean by sufficient weight gain and insufficient vs or too much weight gain.

- Since hypertension, smoking, may effect growth trajectory, why not also do a sensistivity analysis with these excluded?

- please clarify: In your system in this time frame, 6873 w singletons were seen between 24-28 and of these 5816 had a weight measured. Correct? That's whats not clear to me: you eligibility requirement (line 90) was a weight measured, so presumably, some of these women had normal weights. But then on line 185, you say "of the 5814 women who were over weight or obese," implying that the denominator (6873) were only obese and overweight women. (I am assuming the 5816 and 5814 are referring to the same population, but one is a typo--please address.

- For data presented in the text, please provide the raw numbers as well as data such as percentages, effect size (OR, RR, etc) as appropriate and 95% CI’s.

- Does this p value apply to both comparisons?

- Please note that effect sizes (RR, OR) within the zone of potential bias should be noted as weak. Those effect sizes in the zone of potential interest should be emphasized although there are few of them. . (Ref: False alarms and pseudoepidemics. The limitations of observational epidemiology. Grimes DA, Schulz KF. Ob Gyn 2012;120:920-7)

- I understand how understanding fetal growth is important due to risks of childhood obesity, etc buy why is the plasticity of the growth rate important? Are you hypothesizing that individualizing care based on early

weight gain may be a way to alter fetal growth trajectories late? Clearly not studied. Do you have women in your cohort who gained a lot of weight in first 2 trimesters then plateaued? Did they have more normal size babies? More preeclampsia? Etc? Great idea, but important to emphasize that this is speculative.

- non systematic review of your references. Please confirm that these are correct and correct typos.

2. The Editors of Obstetrics & Gynecology are seeking to increase transparency around its peer-review process, in line with efforts to do so in international biomedical peer review publishing. If your article is accepted, we will be posting this revision letter as supplemental digital content to the published article online. Additionally, unless you choose to opt out, we will also be including your point-by-point response to the revision letter, as well as subsequent author queries. If you opt out of including your response, only the revision letter will be posted. Please reply to this letter with one of two responses:

a. OPT-IN: Yes, please publish my response letter and subsequent email correspondence related to author queries.
b. OPT-OUT: No, please do not publish my response letter and subsequent email correspondence related to author queries.

3. As of December 17, 2018, Obstetrics & Gynecology has implemented an "electronic Copyright Transfer Agreement" (eCTA) and will no longer be collecting author agreement forms. When you are ready to revise your manuscript, you will be prompted in Editorial Manager (EM) to click on "Revise Submission." Doing so will launch the resubmission process, and you will be walked through the various questions that comprise the eCTA. Each of your coauthors will receive an email from the system requesting that they review and electronically sign the eCTA.

Any author agreement forms previously submitted will be superseded by the eCTA. During the resubmission process, you are welcome to remove these PDFs from EM. However, if you prefer, we can remove them for you after submission.

4. Our journal requires that all evidence-based research submissions be accompanied by a transparency declaration statement from the manuscript's lead author. The statement is as follows: "The lead author* affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained." *The manuscript's guarantor.

If you are the lead author, please include this statement in your cover letter. If the lead author is a different person, please ask him/her to submit the signed transparency declaration to you. This document may be uploaded with your submission in Editorial Manager.

5. Please submit a completed STROBE checklist with your revision.

Responsible reporting of research studies, which includes a complete, transparent, accurate and timely account of what was done and what was found during a research study, is an integral part of good research and publication practice and not an optional extra. Obstetrics & Gynecology supports initiatives aimed at improving the reporting of health research, and we ask authors to follow specific guidelines for reporting randomized controlled trials (ie, CONSORT), observational studies (ie, STROBE), meta-analyses and systematic reviews of randomized controlled trials (ie, PRISMA), harms in systematic reviews (ie, PRISMA for harms), studies of diagnostic accuracy (ie, STARD), meta-analyses and systematic reviews of observational studies (ie, MOOSE), economic evaluations of health interventions (ie, CHEERS), quality improvement in health care studies (ie, SQUIRE 2.0), and studies reporting results of Internet e-surveys (CHERRIES). Include the appropriate checklist for your manuscript type upon submission. Please write or insert the page numbers where each item appears in the margin of the checklist. Further information and links to the checklists are available at http://ong.editorialmanager.com. In your cover letter, be sure to indicate that you have followed the CONSORT, MOOSE, PRISMA, PRISMA for harms, STARD, STROBE, CHEERS, SQUIRE 2.0, or CHERRIES guidelines, as appropriate.

6. Standard obstetric and gynecology data definitions have been developed through the reVITALize initiative, which was convened by the American College of Obstetricians and Gynecologists and the members of the Women's Health Registry Alliance. Obstetrics & Gynecology has adopted the use of the reVITALize definitions. Please access the obstetric and gynecology data definitions at https://www.acog.org/About-ACOG/ACOG-Departments/Patient-Safety-and-Quality-Improvement/reVITALize. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter.

7. Because of space limitations, it is important that your revised manuscript adhere to the following length restrictions by manuscript type: Original Research reports should not exceed 26 typed, double-spaced pages (6,500 words). Stated page limits include all numbered pages in a manuscript (i.e., title page, précis, abstract, text, references, tables, boxes, figure legends, and print appendixes) but exclude references.

8. Specific rules govern the use of acknowledgments in the journal. Please note the following guidelines:

* All financial support of the study must be acknowledged.
* Any and all manuscript preparation assistance, including but not limited to topic development, data collection, analysis, writing, or editorial assistance, must be disclosed in the acknowledgments. Such acknowledgments must identify the entities that provided and paid for this assistance, whether directly or indirectly.

* All persons who contributed to the work reported in the manuscript, but not sufficiently to be authors, must be acknowledged. Written permission must be obtained from all individuals named in the acknowledgments, as readers may infer their endorsement of the data and conclusions. Please note that your response in the journal's electronic author form verifies that permission has been obtained from all named persons.
* If all or part of the paper was presented at the Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists or at any other organizational meeting, that presentation should be noted (include the exact dates and location of the meeting).

We believe this study may have been previously presented at SMFM. If so, please include the meeting on your title page.

9. Provide a short title of no more than 45 characters, including spaces, for use as a running foot.

10. Provide a précis on the second page, for use in the Table of Contents. The précis is a single sentence of no more than 25 words that states the conclusion(s) of the report (ie, the bottom line). The précis should be similar to the abstract's conclusion. Do not use commercial names, abbreviations, or acronyms in the précis. Please avoid phrases like "This paper presents" or "This case presents."

11. The most common deficiency in revised manuscripts involves the abstract. Be sure there are no inconsistencies between the Abstract and the manuscript, and that the Abstract has a clear conclusion statement based on the results found in the paper. Make sure that the abstract does not contain information that does not appear in the body text. If you submit a revision, please check the abstract carefully.

In addition, the abstract length should follow journal guidelines. The word limits for different article types are as follows: Original Research articles, 300 words. Please provide a word count.

12. Only standard abbreviations and acronyms are allowed. A selected list is available online at http://edmgr.ovid.com/ong/accounts/abbreviations.pdf. Abbreviations and acronyms cannot be used in the title or précis. Abbreviations and acronyms must be spelled out the first time they are used in the abstract and again in the body of the manuscript.

13. The journal does not use the virgule symbol (/) in sentences with words. Please rephrase your text to avoid using "and/or," or similar constructions throughout the text. You may retain this symbol if you are using it to express data or a measurement.

14. Please review the journal's Table Checklist to make sure that your tables conform to journal style. The Table Checklist is available online here: http://edmgr.ovid.com/ong/accounts/table_checklist.pdf.

15. The American College of Obstetricians and Gynecologists' (ACOG) documents are frequently updated. These documents may be withdrawn and replaced with newer, revised versions. If you cite ACOG documents in your manuscript, be sure the reference you are citing is still current and available. If the reference you are citing has been updated (ie, replaced by a newer version), please ensure that the new version supports whatever statement you are making in your manuscript and then update your reference list accordingly (exceptions could include manuscripts that address items of historical interest). If the reference you are citing has been withdrawn with no clear replacement, please contact the editorial office for assistance (obgyn@greenjournal.org). In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript (exceptions could include manuscripts that address items of historical interest). All ACOG documents (eg, Committee Opinions and Practice Bulletins) may be found via the Clinical Guidance & Publications page at https://www.acog.org/Clinical-Guidance-and-Publications/Search-Clinical-Guidance.

16. Figure 1 may be resubmitted as-is with the revision.

17. Authors whose manuscripts have been accepted for publication have the option to pay an article processing charge and publish open access. With this choice, articles are made freely available online immediately upon publication. An information sheet is available at http://links.lww.com/LWW-ES/A48. The cost for publishing an article as open access can be found at http://edmgr.ovid.com/acd/accounts/ifauth.htm.

Please note that if your article is accepted, you will receive an email from the editorial office asking you to choose a publication route (traditional or open access). Please keep an eye out for that future email and be sure to respond to it promptly.

18. If you choose to revise your manuscript, please submit your revision via Editorial Manager for Obstetrics & Gynecology at http://ong.editorialmanager.com. It is essential that your cover letter list point-by-point the changes made in response to each criticism. Also, please save and submit your manuscript in a word processing format such as Microsoft Word.

If you submit a revision, we will assume that it has been developed in consultation with your co-authors and that each author has given approval to the final form of the revision.

Again, your paper will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by Jan 25, 2019, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,

Nancy C. Chescheir, MD
Editor-in-Chief

2017 IMPACT FACTOR: 4.982
2017 IMPACT FACTOR RANKING: 5th out of 82 ob/gyn journals

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University of Pittsburgh

SCHOOL OF MEDICINE

Department of Obstetrics, Gynecology and Reproductive Sciences

Dear Editors:

We thank you for the opportunity to revise our manuscript entitled "**Timing of Gestational Weight Gain and Adverse Perinatal Outcomes in Overweight and Obese Women"** and we are happy to submit our revisions. We thank the editors and reviewers for their thoughtful comments, and we feel that these comments have significantly strengthened our manuscript. As noted in our prior submission, this study was approved by the University of Pittsburgh Institutional Review Board (protocol #PRO12100451, approved 11/21/2012).

The lead author affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned have been explained.

We have followed the STROBE reporting guidelines, and we have also included a STROBE checklist with our resubmission. We have also included our detailed response to the reviewer's comments. We appreciate the complexities in defining adequate and inadequate weight gain in the third trimester, and we would be happy to make any additional revisions requested by the editor. In addition to the revisions requested by the reviewers, we made two additional changes to the manuscript. First, as we were working on the revisions, we noted that we had not provided details about missing data for a few of the demographic variables and outcomes. This does not affect the results of the analyses, but we have included this information in tables 1 and 2. Also, throughout the manuscript we had used both the terms "insufficienct" and "inadequate" to describe weight gain less than the IOM recommendations. In the interest of consistency, we changed all wording to "inadequate".

Thank you for your consideration of our manuscript. We hope that the reviewers find this work suitable for publication in *Obstetrics and Gynecology*.

Sincerely,

Maisa Feghali, MD

[redacted]

University of Pittsburgh

SCHOOL OF MEDICINE

Department of Obstetrics, Gynecology and Reproductive Sciences

RE: Manuscript Number ONG-18-2248

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Reviewer #1: This manuscript has a purpose to "evaluate the impact of insufficient or excessive gestational weight gain in the first and second trimester on adverse perinatal outcomes, and whether weight gain in the third trimester modifies these risks." This was a retrospective, cohort study using an institutional database, which the authors validated by randomly selecting 300 subjects and manually confirming data in the database.

1. Could the authors please include a 'Precis' for their manuscript?
We apologize for this omission, and we have added a Precis to the manuscript (page 3, lines 65-67).

2. The authors describe BMI and suggested gestational weight gain for the different categories for overweight and obese. Could the authors construct a table with the WHO definition of all the various BMI categories (underweight, normal, overweight, obese) in one column and suggested weight gain for each category in an adjacent column and reference in text?
We thank the reviewer for this comment and we agree that it is important to ensure that the recommendations regarding weight gain are readily available. We considered a table, but given that our study only included women with overweight and obesity we opted to instead present this information in the text of the introduction (page 7, lines 140-149).

3. How was gestational age determined? How accurate was determination of gestational age? Was gestational age at birth determined by the Pediatricians with a Ballard score?
The gestational age was calculated using the estimated due date as assigned during obstetric care. We have clarified this point in the manuscript (page 6, lines 126-127).

4. The authors note that they performed a validation survey by manually abstracting a randomly selected group of 300 charts. How was randomization performed? Why did they select a n=300 charts to validate their database?

We randomly selected 300 charts using our statistical program. The 300 charts were a sample of convenience as this was the number of charts we felt that it was feasible to review during the time frame of our validation study. We have included this information in our manuscript (page 6, lines 119-120).

Reviewer #2: Slight revision-please change "fetal gender" to "fetal sex" in line 145 [gender is a social construct, sex is a biologic construct].

We thank the reviewer for identifying this error, and the appropriate change has been made.

Reviewer #3: This is a retrospective cohort study of over 5000 obese women that examined their weight gain as of 24-28 weeks and relationship to adverse pregnancy outcomes. The manuscript is well written.
We thank the reviewer for this comment, and no changes were made to the manuscript.

Line 72: IOM is now the National Academy of Medicine
We thank the reviewer for this comment, and we have modified the manuscript to reflect this point. We also included that the National Academy

of Medicine is formerly the Institute of Medicine, as many practitioners may still think of the weight gain guidelines in terms of the IOM.

Line 77: "weight gain 11 pounds" I think is missing 'less than' as in weight gain less than 11 pounds
We apologize for this omission, and we have added less than to the manuscript.

Figure: Consider saying you excluded under or normal weight women instead of "Not overweight or obese"
We thank the reviewer for this suggestion, and this change has been made to the figure.

Reviewer #4: The authors present a retrospective cohort study on how the timing of gestational weight gain affects infant size. The paper is very timely and important. However, there are some major issues that need to be addressed:

1) The primary objective of the paper is stated as the affect of gestational weight gain on adverse perinatal outcomes. While composite neonatal morbidity is defined in the methods, the actual neonatal outcomes are never given in the results or discussion. According to Table 2 only, there were no differences. A more appropriate primary outcome would be to narrow it to infant size and not the broader adverse perinatal outcome as this really isn't addressed in the paper. This change should also be reflected in the title.
We thank the reviewer for making this important point regarding neonatal morbidity. We included this outcome because we felt strongly that assessing differences in neonatal outcomes was important in the setting of differences in birth weight. We have specified in the results that there were no differences in neonatal morbidity among the different weight gain categories (page 12, lines 251-252). We have added the point that there were no differences in neonatal morbidity among groups to the discussion (page 15, lines 316-317).

2) Weight gain in the second trimester was defined as adequate, insufficient or excessive as based on IOM guidelines. However, in the third trimester, the authors created their own definition based on median weight gain in their patient population stating the definition in the third trimester is too narrow. This makes no sense. The definition is exactly the same as the second trimester. Why did they not use 6 to 8.4 lbs as adequate based on the 12 weeks of the third trimester and below or above for insufficient or excessive for overweight and 4.8 to 7.2 lbs for obese? Their use of 11 lbs is significantly higher than what is recommended for either

overweight or obese women and they don't have an adequate weight gain category for comparison. This makes the paper less generalizable and confusing.
We thank both the reviewer and editors for making this important point, and we have modified the manuscript in response. We considered several approaches, and we ultimately decided to classify weight gain in the third trimester as either below or at/above the recommended weekly weight gain in the third trimester (0.6 lbs/week for overweight women and 0.5 lbs/week for obese women). We chose this approach because it allowed us to both focus our approach on the current weight gain recommendations while also giving the reader a sense of whether weight gain patterns in the third trimester were below or above the current recommendations based on the weight gain classification up to 24-28 weeks' gestation. We have clarified this approach in the methods (page 9, lines 191-192), and results (page 12, lines 255-263). Overall, the results using this approach were similar to the results from our prior approach with the exception of differences in SGA among women with class 3 obesity. We have ensured that both the results (see above) and discussion (page 13, lines 272-274) reflect our findings.

3) Please define the classes of obesity in the methods.
We thank the reviewer for this suggestion, and we have included these definitions in the manuscript (page 6-7, lines 136-137).

STATISTICAL EDITOR COMMENTS:

The Statistical Editor makes the following points that need to be addressed:

lines 50-56: As space permits, should cite how many women were in each of the GWG strata and what proportion had adverse outcomes. This would help to give context to the aOR estimates.
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We apologize for this omission, and this information has been added to table 1.
Table 3: Rather than just using a new definition (based on threshold of median wgt gain for this cohort), should first show the analysis based on the three strata as generally defined for GWG, then supplement with the Authors analysis of their median 3rd trimester GWG as a binary variable. Since the Authors state that the

standard middle category of adequate GWG was small (lines 135-136), the finding of association of LGA with highest GWG should still hold, and the more complex association of SGA vs 3rd trimester GWG may be confirmed. As currently written, the results may not be generalizable to other populations with a different distribution of 3rd trimester GWGs.
We thank the statistical editor for their thoughtful comments, and we have made changes to the analysis as suggested. Please see our response to reviewer 4, comment 2 for full details. We chose to show only our new approach and not our original approach as the overall results were similar and we felt that the approach based on the IOM cut-offs was a much better approach to the analysis.

Fig 1: The missing data for prenatal visit 24-28 wks (~15%) of women, has the potential for biasing the estimates.
We agree with this important point, and we apologize for the omission in our initial manuscript draft. We have included this point in the discussion of study limitations (page 16, lines 336-338).

EDITOR COMMENTS:

1. Thank you for your submission to Obstetrics & Gynecology.

This analysis has made it past our decision to not publish work that shows more weight gain makes bigger babies, and low weight gain begets smaller babies because you have offered an analysis that is potentially actionable.

There are two areas I particularly want you to address in your revision, should you choose to revise your paper. One of these is addressed in my comments on the PDF.

a. As I re-read the IOM recommendations for weight gain in pregnancy for this review, I find a set of recommendations for weight gain in the 2/3rd trimester based on degree of over-weight and obesity. I don't see one for the first trimester although you've analyzed Trimester 1 and 2 together by their standard. I'm not sure I understand that.
We apologize for the confusion about how we handled first trimester weight gain. When we looked at the IOM recommendations, there is a footnote to the table with a recommended range of first trimester weight gain (please see table below copies from the IOM recommendations) We wanted to include this in our early pregnancy calculations, so we used the lower amount (1.1 lbs for

the first trimester) in our definition of inadequate weight gain, and the upper recommendation (4.4 lbs for the first trimester) in our definition of excess early gestational weight gain. We have clarified this in our approach (page 7, lines 141-149). We thank you for this comment, because we feel that clarification of this point significantly strengthens the manuscript. We would also be happy to consider alternative approaches depending on your preferences.

TABLE 1 NEW RECOMMENDATIONS FOR TOTAL AND RATE OF WEIGHT GAIN DURING PREGNANCY, BY PREPREGNANCY BMI

Prepregnancy BMI	BMI+ (kg/m²) (WHO)	Total Weight Gain Range (lbs)	Rates of Weight Gain* 2nd and 3rd Trimester (Mean Range in lbs/wk)
Underweight	<18.5	28–40	1 (1–1.3)
Normal weight	18.5-24.9	25–35	1 (0.8–1)
Overweight	25.0-29.9	15–25	0.6 (0.5–0.7)
Obese (includes all classes)	≥30.0	11–20	0.5 (0.4–0.6)

+ To calculate BMI go to www.nhlbisupport.com/bmi/
** Calculations assume a 0.5–2 kg (1.1–4.4 lbs) weight gain in the first trimester (based on Siega-Riz et al., 1994; Abrams et al., 1995; Carmichael et al., 1997)*

b. You used the median of the weight gain range in your population for determination of adequacy of weight gain because you had small numbers using the IOM numbers and it would make comparison impossible for that range. It's find to use this UPMC-based analysis but we would like you to include the comparison directly of inadequate and too much weight gain using IOM standards (explaining that the mid-range was too small to use). That's just the way your data fell and its not really necessary to develop an alternative.
We thank you for this comment, and we have modified the manuscript accordingly. Please see our response to reviewer 4, comment 2 for details of our approach.

Please review and consider the comments here and in the PDF prior to submitting your revised manuscript. These comments should be included in your point-by-point response cover letter.

The notated PDF is uploaded to this submission's record in Editorial Manager. If you cannot locate the file, contact Randi Zung and she will send it by email - rzung@greenjournal.org.

- Impact implies a blow, or strike. We prefer a different term--perhaps associative in nature since you lack
causal relationships.
We have altered this wording as requested.

- The objective for the abstract should be a simple "to" statement without background.

- perhaps "our aim was to evaluate" or even better "to evaluate...."
Thank you for this suggestion, and the manuscript has been modified accordingly.

- where were these patients? Single institution? How were they identified?
We have included this additional information as requested.

- need to define how sufficiency etc were defined.
Thank you for this comment, and we have included additional definitions.

- again, please use associative language.
We have modified the manuscript accordingly to include associative language.

- this sentence seems to be missing a word. is it "either weight loss or weight gain of less than 11 lbs...?
We apologize for this omission, and the suggested edits have been made.

- what is essential neonatal fat mass?
The word essential has been removed.

- When you write that a study occurred between date 1 and date 2, it literally excludes those boundary dates. For
instance, “This study was performed between Feb 2018 and Jan 2019” would mean it was performed from March 2018 to Dec 2018. Do you instead mean that the study was performed from date 1 to date 2? If so, please edit.
We have corrected the wording to accurately reflect the dates.

- did they all deliver at UPMC?
All patients delivered at UPMC, and the manuscript has been revised to include this information.

- is this a validated database?
Our validation process included both the data from the MOMI database and the electronically extracted information. We have modified the methods section to reflect that both sources of information were validated.

University of Pittsburgh
SCHOOL OF MEDICINE
Department of Obstetrics, Gynecology and Reproductive Sciences

- Where did these recommendations come from ? In the IOM 2009 report (Table S-1) there is no break down
by trimester for weight gain recommendations--2nd and 3rd trimester are "lumped" and there is no 1st
trimester recommendation. Overall for overweight women mean range of gain in 2nd and third is 0.6 lb/week (0.5-0.7) and for obese women its 0,.5 lb/wk ().4-0.6). If I do this calculation for an obese women, by 24 weeks, she would have already gain 11.6 lbs (4,4 +0.6 x 12). Isn't that more than adequate?
We thank the editor for identifying the ambiguity in our approach. We have modified the text accordingly to specify how we handled first trimester weight gain based on the IOM recommendations.

- please clarify: an overweight women
We have corrected this error.

- please explain why you did not use IOM recommendations but developed values based on what your
population did?
We have modified our approach to use the IOM recommendation (see above).

- please clearly define what you mean by sufficient weight gain and insufficient vs or too much weight gain.
We have modified our manuscript to more clearly address these definitions.

- Since hypertension, smoking, may effect growth trajectory, why not also do a sensistivity analysis with these
excluded?
We thank the reviewer for these suggestions, and we have performed the additional sensitivity analyses and included this in the manuscript. The overall results were unchanged when either women with chronic hypertension or smoking were excluded.

- please clarify: In your system in this time frame, 6873 w singletons were seen between 24-28 and of these
5816 had a weight measured. Correct? That's whats not clear to me: you eligibility requirement (line 90) was a
weight measured, so presumably, some of these women had normal weights. But then on line 185, you say
"of the 5814 women who were over weight or obese," implying that the denominator (6873) were only obese
and overweight women. (I am assuming the 5816 and 5814 are referring to the

same population, but one is
a typo--please address.
We have clarified the information regarding the derivation of our cohort, and we have also corrected the 5816 number which was a typo.

- For data presented in the text, please provide the raw numbers as well as data such as percentages, effect size (OR, RR, etc) as appropriate and 95% CI's.
We have included this information in the text as suggested.

- Does this p value apply to both comparisons?
Yes, this is correct.

- Please note that effect sizes (RR, OR) within the zone of potential bias should be noted as weak. Those effect sizes in the zone of potential interest should be emphasized although there are few of them. . (Ref: False alarms and pseudoepidemics. The limitations of observational epidemiology. Grimes DA, Schulz KF. Ob Gyn 2012;120:920-7)
We thank the editor for making this important point, and we have modified the manuscript to ensure that the language reflects a more speculative association between early weight gain and outcomes.

- I understand how understanding fetal growth is important due to risks of childhood obesity, etc buy why is
the plasticity of the growth rate important? Are you hypothesizing that individualizing care based on early
weight gain may be a way to alter fetal growth trajectories late? Clearly not studied. Do you have women in
your cohort who gained a lot of weight in first 2 trimesters then plateaued? Did they have more normal size
babies? More preeclampsia? Etc? Great idea, but important to emphasize that this is speculative.
We thank the editor for these comments, and we agree with these important points. We have modified the language accordingly to emphasize that these findings are speculative.

- non systematic review of your references. Please confirm that these are correct and correct typos.
We have reviewed and corrected the references. We wanted to point out that the journal abbreviation for reference 21 is correct – Ann Ig is an Italian journal.

2. The Editors of Obstetrics & Gynecology are seeking to increase transparency around its peer-review process, in line with efforts to do so in international

biomedical peer review publishing. If your article is accepted, we will be posting this revision letter as supplemental digital content to the published article online. Additionally, unless you choose to opt out, we will also be including your point-by-point response to the revision letter, as well as subsequent author queries. If you opt out of including your response, only the revision letter will be posted. Please reply to this letter with one of two responses:

a. OPT-IN: Yes, please publish my response letter and subsequent email correspondence related to author queries.
b. OPT-OUT: No, please do not publish my response letter and subsequent email correspondence related to author queries.
Opt In
3. As of December 17, 2018, Obstetrics & Gynecology has implemented an "electronic Copyright Transfer Agreement" (eCTA) and will no longer be collecting author agreement forms. When you are ready to revise your manuscript, you will be prompted in Editorial Manager (EM) to click on "Revise Submission." Doing so will launch the resubmission process, and you will be walked through the various questions that comprise the eCTA. Each of your coauthors will receive an email from the system requesting that they review and electronically sign the eCTA.

Any author agreement forms previously submitted will be superseded by the eCTA. During the resubmission process, you are welcome to remove these PDFs from EM. However, if you prefer, we can remove them for you after submission.

4. Our journal requires that all evidence-based research submissions be accompanied by a transparency declaration statement from the manuscript's lead author. The statement is as follows: "The lead author* affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained." *The manuscript's guarantor.

If you are the lead author, please include this statement in your cover letter. If the lead author is a different person, please ask him/her to submit the signed transparency declaration to you. This document may be uploaded with your submission in Editorial Manager.
We have included this statement in the cover letter.

5. Please submit a completed STROBE checklist with your revision.
We have submitted a completed STROBE checklist.

Responsible reporting of research studies, which includes a complete, transparent, accurate and timely account of what was done and what was found during a

research study, is an integral part of good research and publication practice and not an optional extra. Obstetrics & Gynecology supports initiatives aimed at improving the reporting of health research, and we ask authors to follow specific guidelines for reporting randomized controlled trials (ie, CONSORT), observational studies (ie, STROBE), meta-analyses and systematic reviews of randomized controlled trials (ie, PRISMA), harms in systematic reviews (ie, PRISMA for harms), studies of diagnostic accuracy (ie, STARD), meta-analyses and systematic reviews of observational studies (ie, MOOSE), economic evaluations of health interventions (ie, CHEERS), quality improvement in health care studies (ie, SQUIRE 2.0), and studies reporting results of Internet e-surveys (CHERRIES). Include the appropriate checklist for your manuscript type upon submission. Please write or insert the page numbers where each item appears in the margin of the checklist. Further information and links to the checklists are available at http://ong.editorialmanager.com. In your cover letter, be sure to indicate that you have followed the CONSORT, MOOSE, PRISMA, PRISMA for harms, STARD, STROBE, CHEERS, SQUIRE 2.0, or CHERRIES guidelines, as appropriate.

6. Standard obstetric and gynecology data definitions have been developed through the reVITALize initiative, which was convened by the American College of Obstetricians and Gynecologists and the members of the Women's Health Registry Alliance. Obstetrics & Gynecology has adopted the use of the reVITALize definitions. Please access the obstetric and gynecology data definitions at https://www.acog.org/About-ACOG/ACOG-Departments/Patient-Safety-and-Quality-Improvement/reVITALize. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter.

7. Because of space limitations, it is important that your revised manuscript adhere to the following length restrictions by manuscript type: Original Research reports should not exceed 26 typed, double-spaced pages (6,500 words). Stated page limits include all numbered pages in a manuscript (i.e., title page, précis, abstract, text, references, tables, boxes, figure legends, and print appendixes) but exclude references.
We have confirmed that our manuscript complies with the page limits.

8. Specific rules govern the use of acknowledgments in the journal. Please note the following guidelines:

* All financial support of the study must be acknowledged.
* Any and all manuscript preparation assistance, including but not limited to topic development, data collection, analysis, writing, or editorial assistance, must be disclosed in the acknowledgments. Such acknowledgments must identify the entities that provided and paid for this assistance, whether directly or indirectly.
* All persons who contributed to the work reported in the manuscript, but not

sufficiently to be authors, must be acknowledged. Written permission must be obtained from all individuals named in the acknowledgments, as readers may infer their endorsement of the data and conclusions. Please note that your response in the journal's electronic author form verifies that permission has been obtained from all named persons.
* If all or part of the paper was presented at the Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists or at any other organizational meeting, that presentation should be noted (include the exact dates and location of the meeting).

We believe this study may have been previously presented at SMFM. If so, please include the meeting on your title page.
This study was presented at SMFM, and we apologize for the omission. We have included this information on the title page.

9. Provide a short title of no more than 45 characters, including spaces, for use as a running foot.
We have included a short running title.

10. Provide a précis on the second page, for use in the Table of Contents. The précis is a single sentence of no more than 25 words that states the conclusion(s) of the report (ie, the bottom line). The précis should be similar to the abstract's conclusion. Do not use commercial names, abbreviations, or acronyms in the précis. Please avoid phrases like "This paper presents" or "This case presents."
We have included a precis, and we apologize for the initial omission of this component.

11. The most common deficiency in revised manuscripts involves the abstract. Be sure there are no inconsistencies between the Abstract and the manuscript, and that the Abstract has a clear conclusion statement based on the results found in the paper. Make sure that the abstract does not contain information that does not appear in the body text. If you submit a revision, please check the abstract carefully.
We have reviewed the abstract to ensure consistency.

In addition, the abstract length should follow journal guidelines. The word limits for different article types are as follows: Original Research articles, 300 words. Please provide a word count.

We have included a word count for both the abstract and manuscript on the cover page.

12. Only standard abbreviations and acronyms are allowed. A selected list is available online at http://edmgr.ovid.com/ong/accounts/abbreviations.pdf.

Abbreviations and acronyms cannot be used in the title or précis. Abbreviations and acronyms must be spelled out the first time they are used in the abstract and again in the body of the manuscript.
We have reviewed the manuscript to insure that only standard abbreviations are allowed.

13. The journal does not use the virgule symbol (/) in sentences with words. Please rephrase your text to avoid using "and/or," or similar constructions throughout the text. You may retain this symbol if you are using it to express data or a measurement.
We have removed this symbol from the manuscript.

14. Please review the journal's Table Checklist to make sure that your tables conform to journal style. The Table Checklist is available online here: http://edmgr.ovid.com/ong/accounts/table_checklist.pdf.
We have reviewed the table checklist to ensure that our tables conform to journal style.

15. The American College of Obstetricians and Gynecologists' (ACOG) documents are frequently updated. These documents may be withdrawn and replaced with newer, revised versions. If you cite ACOG documents in your manuscript, be sure the reference you are citing is still current and available. If the reference you are citing has been updated (ie, replaced by a newer version), please ensure that the new version supports whatever statement you are making in your manuscript and then update your reference list accordingly (exceptions could include manuscripts that address items of historical interest). If the reference you are citing has been withdrawn with no clear replacement, please contact the editorial office for assistance (obgyn@greenjournal.org). In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript (exceptions could include manuscripts that address items of historical interest). All ACOG documents (eg, Committee Opinions
and Practice Bulletins) may be found via the Clinical Guidance & Publications page at https://www.acog.org/Clinical-Guidance-and-Publications/Search-Clinical-Guidance.
We have ensured that there are no out-of-date ACOG documents cited in this manuscript.

16. Figure 1 may be resubmitted as-is with the revision.
Figure 1 will be re-submitted with the updated version of this manuscript.

17. Authors whose manuscripts have been accepted for publication have the option to pay an article processing charge and publish open access. With this choice, articles are made freely available online immediately upon publication. An

information sheet is available at http://links.lww.com/LWW-ES/A48. The cost for publishing an article as open access can be found at http://edmgr.ovid.com/acd/accounts/ifauth.htm.

Please note that if your article is accepted, you will receive an email from the editorial office asking you to choose a publication route (traditional or open access). Please keep an eye out for that future email and be sure to respond to it promptly.

18. If you choose to revise your manuscript, please submit your revision via Editorial Manager for Obstetrics & Gynecology at http://ong.editorialmanager.com. It is essential that your cover letter list point-by-point the changes made in response to each criticism. Also, please save and submit your manuscript in a word processing format such as Microsoft Word.

If you submit a revision, we will assume that it has been developed in consultation with your co-authors and that each author has given approval to the final form of the revision.

Again, your paper will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by Jan 25, 2019, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,

Nancy C. Chescheir, MD
Editor-in-Chief

2017 IMPACT FACTOR: 4.982
2017 IMPACT FACTOR RANKING: 5th out of 82 ob/gyn journals

Randi Zung

From: Maisa Feghali [redacted]
Sent: Saturday, February 2, 2019 2:59 AM
To: Randi Zung
Subject: Re: Your Revised Manuscript 18-2248R1
Attachments: 18-2248R1 ms (1-31-19v2). MFedits.docx

HI Randi,

Thank you for your email. Here are my responses to the author queries.
Please let me know if there is anything else you need from me.

Maisa

1. General: The Manuscript Editor and Dr. Chescheir have made edits to the manuscript using track changes. Please review them to make sure they are correct.

Thank you for making the changes. I have reviewed the manuscript and have no corrections that need to be made.

2. Author Byline: Please add any academic degrees to the byline for each author you would like to include (no more than two per person).

Degrees added as requested.

3. Abstract-Objective: Please note the edits to this section. Would you please make any additional edits in the remainder of the text to match this phrasing?

Thank you for making these changes. The description of the objective in the introduction section has been modified to match with the abstract.

4. Table 2: We are able to keep this table in print; some edits have been made per journal style.

Thank you.

On Fri, Feb 1, 2019 at 10:08 AM Randi Zung <RZung@greenjournal.org> wrote:

> Dear Dr. Feghali:

Your revised manuscript is being reviewed by the Editors. Before a final decision can be made, we need you to address the following queries. Please make the requested changes to the latest version of your manuscript that is attached to this email. **Please track your changes and leave the ones made by the Editorial Office.** Please also note your responses to the author queries in your email message back to me.

1. General: The Manuscript Editor and Dr. Chescheir have made edits to the manuscript using track changes. Please review them to make sure they are correct.

2. Author Byline: Please add any academic degrees to the byline for each author you would like to include (no more than two per person).

3. Abstract-Objective: Please note the edits to this section. Would you please make any additional edits in the remainder of the text to match this phrasing?

4. Table 2: We are able to keep this table in print; some edits have been made per journal style.

To facilitate the review process, we would appreciate receiving a response by February 4.

Best,

Randi Zung

– –

Randi Zung (Ms.)

Editorial Administrator | *Obstetrics & Gynecology*

American College of Obstetricians and Gynecologists

409 12th Street, SW

Washington, DC 20024-2188

T: 202-314-2341 | F: 202-479-0830

http://www.greenjournal.org

From: [redacted]
To: Stephanie Casway
Subject: Re: O&G Figure Revision: 18-2248
Date: Tuesday, January 29, 2019 9:24:49 AM

Hi Stephanie,

Thank you for sending the edited figure. I have reviewed it, found no mistakes and do not need to make any changes at this time.

Please let me know if there is anything else I can do to help.

Maisa

On Tue, Jan 29, 2019 at 9:15 AM Stephanie Casway <SCasway@greenjournal.org> wrote:

> Good Morning Dr. Feghali,
>
> Your figure has been edited, and a PDF of the figure is attached for your review. Please review the figure CAREFULLY for any mistakes.
>
> PLEASE NOTE: Any changes to the figures must be made now. Changes made at later stages are expensive and time-consuming and may result in the delay of your article's publication.
>
> To avoid a delay, I would be grateful to receive a reply no later than Thursday, 1/31. Thank you for your help.
>
> Best wishes,
>
> Stephanie Casway, MA
> Senior Production Editor
>
> *Obstetrics & Gynecology*
> American College of Obstetricians and Gynecologists
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> Washington, DC 20024
> Ph: (202) 314-2339
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