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- Comments from the reviewers and editors (email to author requesting revisions)
- Response from the author (cover letter submitted with revised manuscript)\*
- Email correspondence between the editorial office and the authors\*

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<sup>\*</sup>The corresponding author has opted to make this information publicly available.

**Date:** Sep 27, 2018

To: "Kjersti Aagaard"

From: "The Green Journal" em@greenjournal.org

**Subject:** Your Submission ONG-18-1609

RE: Manuscript Number ONG-18-1609

Words Matter: Measured Impact of Political Rhetoric on Timely & Regular Access of Prenatal Care

Dear Dr. Aagaard:

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 Oct 18, 2018, we will assume you wish to withdraw the manuscript from further consideration.

#### **REVIEWER COMMENTS:**

Reviewer #1: In this manuscript, the authors present a clever use of Google analytics to investigate how rhetoric around immigration reform has impacted prenatal care use among Hispanic women in Houston, Texas. Both sides of increasingly polarized viewpoints would agree something has to be done about immigration. I appreciate the authors statements that they are not seeking to wade into that mess but rather to document how rhetoric can impact access to care. Social determinates of care are important - very important - and access to care as a driver of population outcomes can be impacted by a wide range of anticipated and unanticipated factors. I couldn't help but think about Harry Potter in considering the conclusions of this study. "He Who Cannot Be Named" was the reference to Lord Voldemort used by most throughout the book series. In the series finale, as the dark forces were descending on the castle, Filius Filtwick and Minerva McGonagall have the following dialog:

Filius Flitwick: You do realize, of course, we can't keep out You-Know-Who indefinitely. Minerva McGonagall: That doesn't mean we can't delay him. And his name is Voldemort. Filius, you might as well use it. He's going to try to kill you either way.

The connection to Harry Potter to this study is that immigration reform is needed and if in discussing it we impact some social determinate of health then does that mean we shouldn't talk about the reform? Even if the terms used to represent the "sides" of the discussion are less inflammatory the message may still negatively impact how people the discussions may impact.

I have the following specific comments/questions:

- 1) Overall the manuscript is very well written. I think, however, the introduction could be shorter.
- 2) Why were the 3 search terms chosen? If less inflammatory terms were used in the search, presumably the same trends in prenatal care would be identified since they are driven by other factors (plausibly the chosen and like terms). The authors admit they cannot establish causality so then does it matter that ice cream cone sales nadir with the number of ski accidents? It is strongly implied that the chosen terms, being generally regarded as more inflammatory, mark a point in which immigrant sentiments became more divisive and that that divisiveness is a driver of health-seeking behaviors...but you can't really say that this is the case and in a sense you add to a mess that is already short on facts.
- 3) What defines the "Southern United States?" Google searches do vary by region. Would the inflection point vary in a different region? I am reminded of C. Vann Woodward's book, "The Strange Career of Jim Crow." In this fascinating read, Woodward argues that Jim Crow laws and segregation were not part of the pre-Civil War South and that their development was not unavoidable. There are stereotypes of the South that do not necessarily align with a regrettably silent proportion

of the society - what is said (or searched) is not what is necessarily believed or acted on.

- 4) How were normal and non-normal data defined?
- 5) I seem to be missing where Table 3 is mentioned in the results. This table seems to be undermining the study message. After Rhetoric Increase either there was no change in the rate of inadequate prenatal care (non-native folks) OR matters improved (everyone else). The same basic message seems to be depicted in Figure 2 wouldn't the rate be a better measure of what's going on across time than total number of visits? The hemoglobin nadir seems to show similarly neutral news across site of birth. You argue that no change is bad because everyone else got better over the same time period but if overall inadequate PNC is down is maternal M&M similarly better over this same time period (I kind of thought things were getting worse?). Are these improvements in PNC random or systematic?
- 6) Line 199 Is it really necessary to write in a double-negative fewer...inadequate = better!
- 7) Figure 4A the R2 for the trends are not that impressive. In the best case, 80% of the variance around the depicted relationship is NOT explained by your line.

  Overall, I thought this was a clever study. The study question ventures into some tough metaphysical territory. I like the methods but the association is just that and perhaps the waning capacity of clear-minded interpretation of data among our citizens makes sharing the association unwise? Thanks for the interesting read!

#### Reviewer #2:

It is interesting and relevant to examine the association of political rhetoric and utilization of health services. However, this study as presented has significant flaws. The primary outcome appears to be adequacy of prenatal care; are timing and frequency (he elements of adequacy) secondary aims? Where did anemia come from? It is in results but I do not remember it being mentioned in methods (or I missed it).

The comparison groups are similarly confused. Sometimes 2: native/non-native; sometimes 3: US born non-Hispanic/Hispanic native/Hispanic non-native; sometimes more: country of origin. I found this very confusing. It may be possible to include all these groups in a single analysis but it needs to be very clearly described or readers get lost.

Did you test for an interaction prior to the stratified models and/or calculate difference-in-difference? Seems like these approaches are appropriate to your question and data.

The authors state more than once that this study is not causal, but they use the word "impact" in the title, which is causal. So which is it?

The study purpose statement is confused, and the confusion in the rest of the paper flows from there - study purpose should make very clear what the outcome(s) is, what the key independent variable/exposure/treatment is, what the comparison groups are. As well as any hypotheses.

Please use active voice.

### Abstract

Can just say prenatal care is standard of care. "accepted predictor" is very awkward.

Anti-emigration? I was confused by the authors' use of "emigration" An emigrant is someone who leaves their own country. So all non-US born persons are immigrants, none of them are emigrants. They are only emigrants when spoken about in their countries of origin. US born people who live abroad are emigrants (from the US perspective) and immigrants (from country of residence perspective). This analysis focuses on immigrants only - or am I missing something here?

Make clear in methods that the sample is women who delivered. Universe and sample are not clear in abstract

Line 59: here, finally, is the primary outcome

Line 63: where did hemoglobin come from?

Line 65: no mention of logistic models in methods

Line 67: sample N not relevant here

#### Intro:

Authors talk about "modifiable psychosocial factors", but aren't SDoH structural? You don't make the link clearly between effects of anti-immigrant rhetoric and SDoH - via social exclusion? Be explicit.

Line 89-92: these very old citations are not very compelling - might just state that timely, adequate prenatal care is the standard of care worldwide and cite WHO and ACOG.

The references seem all mixed up -

Line 95: what is a policy of community avoidance?

The Intro does not flow well - the part about maternal morality and Texas felt tacked on at the end

Line 102-107: study purpose statement was confusing. I got confused about the outcomes and what you are testing.

#### Methods:

Line 112: Move IRB approval to the end of methods

The first paragraph is a mix of data sources and variable definitions. Possible outline for methods section:

- 1) Overview: study design, setting
- 2) Data sources (Peribank and google)
- 3) Outcome(s) definition and measurement
- 4) Ind var/exposure: pre/post rhetoric definition and rhetoric
- 5) Covariates
- 6) Analysis steps should flow to match results so reader knows where we are going

References seem totally mixed up.

I was left wondering is adequacy of prenatal care was the primary outcome.

Line 115-117: here authors describe comparison groups by ethnicity and nativity - but this did not really describe which groups would be compared in which analyses, did not prepare me for the way results are presented

Seems like some data elements (country of origin) are in the survey/primary data collection as well as abstracted from the chart? It was not clear to me what the primary data added to what is in the chart, and where each variable came from and how you decided what to use if a variable was in more than 1 place.

Line 165: E-value is not really relevant here - you do not have a causal inference analysis set-up/design. You could use the E value to estimate the elvel of unmeasured confounding would need to be present to change your results/associations, but nothing to do with causal inference in this study - or am I missing something?

What is the main analysis? Trends? Difference-in-Difference/interaction? Logistic model? Usually the methods go: descriptives, bivariate, multivariate/regression, causal inference methods (if any), sensitivity analyses. Then results are presented in the same order. Methods are a roadmap to the results.

### Results:

Tables 1 & 2 did not make sense to me: if there are 3 groups, present Table 1 by the 3 groups. Make a decision about how to present the sample - only 1 Table 1. A web appendix is an option if you want to provide more detail or other ways of looking at the data. But deciding how to present Table 1 is part of the analyst's job - every analysis is a series of decisions about which information to privilege and how to present it.

Table 2 and Fig 5 re identical, is that correct? Fig 5 is easier to understand - can "see" the crude difference-in-difference well. Just add p values to the graph

Lines 190-192: this belongs in methods

I got confused about who was in each analysis/results (Table/figure). Which analyses included the US born non-Hispanic versus native/non-native among Hispanics.

Line 197-198 is repetitive, that is in methods

Lines 199-201: present this fist, this is the primary outcome (if I have understood correctly)

Line 195: where did hemoglobin come from???

#### Discussion:

Begin with a summary of your findings, highlighting what you want the reader to remember. Perhaps begin discussion with paragraph beginning at line 220.

Line 238: where did gestational diabetes come from ?!?! Not mentioned in methods or results.

Line 261-2634: delete. This adds nothing to your study.

Reviewer #3: Chu and colleagues have submitted what could become an important piece of scholarship in our field, measuring markers of inadequate prenatal care in vulnerable populations pre and post a marked change in anti-immigrant rhetoric (7/2015). The sample size and granular detail available to them via the prospectively collected PeriBank, as well as their geography in Texas, give them a unique strength of position from which to write and analyze data.

I will leave a critical assessment of the methodology used here to the journal's statistical reviewer. My comments are grouped in two domains --

### Readability:

This piece could benefit from a tightening around the choice of language used throughout. Many of the terms used are less than familiar to readers of standard ObGyn journals, and clarity, precision, and consistency are important.

## Examples include:

- Rhetoric is alternately described as "anti-immigrant" or "anti-immigration" or "anti-immigration/anti-emigration" throughout, and those are clearly related though independent constructs (being against the people themselves, or against the policies/culture surrounding movement of people). I recommend you thoughtfully select one construct and use it consistently throughout.
- Similarly, the use of the adjective "political" in front of "rhetoric" throughout much but not all of the manuscript caught my eye. I would imagine that while much of the rhetoric you picked up on your Google search analysis was political, certainly not all of it is. My personal bias is that political rhetoric has bled into increased rhetoric in many civic domains (church, school, etc), and I'm not sure that using the word "political" here is needed (or wholly accurate).
- The same population of subjects are alternatively described as "non-US born," "US non-natives," and "non-US native born," which is distracting for a reader. Consistency is needed here.
- Finally, the "after rhetoric" period is alternately identified as "after the increase in anti-immigration rhetoric," "after rhetoric change," and "after the rhetoric increase." I recommend that you keep the language around your exposure consistent.

### Interpretability:

- Throughout the manuscript, there are many instances where the comparator/referent is not identified. As a reader, I had to pause, read the sentence again, and think through the unspoken "when compared to ..." Please add those as appropriate. Examples include but not limited to lines 178, 179, 200.
- The subject groups are challenging to think through, particularly as they do not have wholly distinct sounding names. "Hispanic/native born," "non-Hispanic/native born," "Hispanic/non-native born," and "non-Hispanic/non-native born." I don't know if you can think of a way to make these groups read as more distinct to your reader -- but something is needed in both the text and the tables to help the reader hold these groups as independent.

#### Smaller comments:

- You do something very unusual in both the introduction and the discussion, which is to assume a defensive/protective posture assuring the reader that you are not making an argument for or against policies around immigration reform. Of course you are not, and the inclusion of such text feels wholly out of place in a scientific journal. Perhaps a marker of the times, yes, but my strong hope is that you and the journal would agree that defensive posturing around science is not needed.
- Preventive, not preventative.
- In the abstract, you put the inflection date in the Results section, and in the paper, you put it in the Methods section. My belief is that it belongs in the Results section, but either way, recommend being consistent.
- The references for the APNCU are old (1990s) and related to Kotelchuk. Is this the same metric that others refer to as the Kotelchuk index? If so, please include that. If not, I think you may need other references.
- Line 197-98 is redundant. That information is available in the methods section.
- The first paragraph of your discussion reads more like an accompanying editorial piece than a discussion. I would start

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that section with your second paragraph.

- You use the word "rigorous" rigorously! Line 247, 248, and 252.

Reviewer #4: This topic is extremely important given what we know about social factors and their ability to significantly impact public and personal health. I think specifically this paper also notes interesting examples of intersectionality that we presume exist, and supports their association with negative health outcomes.

I appreciated using Google searches to identify trends in rhetoric. Was "Mexico Wall" together the actual term incorporated? Do you think results would have changed significantly by unlinking the works and then including them in the search with the other terms individually? This also specifically focuses on anti Latino rhetoric, as is the focus of your manuscript it seems and so should be stated. While often Latino and immigrant align, and as noted throughout the manuscript sometimes there are differences between immigrant and non-immigrant latinos, it is important to note there may be differences between latino and non-latino immigrants, particularly if the rhetoric being observed was anti-immigrant targeted at a different group (muslims for example). I think very clear definitions of your target group of interest (ie latino immigrants), intervention (ie anti-latino immigration rhetoric) and outcomes would strengthen the manuscript greatly.

Were all interviews conducted in english or Spanish? Similar to terminology for ethnicity, while I am sure many Latinos native language is Spanish, many Latinos (including Mexican, central and south American natives) have "native languages" other than spanish or english. Were these also included? Did exclusion criteria include primary language not english or Spanish? If only latinos of Spanish speaking countries were included, than likely the term that you should stick with is Hispanic since that identifies by language (Spanish) and not geography (Latin America).

Identifying low Hb as a well established index for pregnancy outcomes earlier in the paper would have been helpful for me.

When talking about public health barriers in the introduction, I would stick to well defined words for levels (internalized, institutionalized, etc).

In the intro mention of undocumented patients is made for the first time. Did you assess legal vs illegal immigration status among non-us latinos and non-latinos?

The stated aim at the end of the introduction is different than previously stated. Prior statements correctly suggest measuring an association whereas here it states that the impact of anti-immigration political rhetoric on receipt of prenatal care was to be measured.

I would include as a limitation inability to capture women who have no prenatal care, have cnm/provider outside the hospital, and deliver outside of the hospital as this may show stronger support for your work. additionally immigrants who agree to enroll/sign consent/participate may be a different group (less fear/identify less as a target) than those who do not consent to participate? Do you think prior PNC history in other pregnancies is influential in access for these women and could potentially confound?

How do we know that these two hospitals together are representative of the general population of births in Houston? Are there other hospitals? Is this information generalizable to the latino population outside of Texas?

# STATISTICAL EDITOR COMMENTS:

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

Tables 1, 2: Need units for maternal age, BMI, GA age. Gravidity and Parity can only have integer values. Should cite as median(range or IQR) or as categories. Comparisons of gravidity and parity should be based on comparison of medians or categories.

Table 4: Should include a footnote stating the factors retained in the adjusted model and should include columns for unadjusted ORs for comparison. The p-values could be cited as footnote, since whether the aORs were significant can be determined by inspection of the respective CIs.

Suggest including a table summarizing analysis of Hemoglobin values. It is not clear from Fig 3 that the differences in hemoglobin are associated with p-values of < 0.001, as stated in abstract, lines 62-63. As space allows, would include more quantitative information in the abstract, such as outlined in Table 3.

Methods: Should explain to the reader whether there were any changes in Medicaid enrollment criteria or other avenues for uninsured to obtain pre-natal care during the period 2011-2017 in Texas. (lines 213-219)

Fig 3a, lines 184-186: As can be seen in Table 1, the number of women from South America is a small fraction of the other groups and there is little power to detect a difference before vs after for such a small subset. Need to acknowledge lack of sample size to make a generalization about that group or compare them to the much larger groups.

Fig 5: Title or footnote to forest plots should make clear that the odds referred to are odds of inadequate prenatal care.

After rhetoric increase, the aORs for both Hispanic US native and Hispanic Non-US native changed from NS to significant. Were the aORs of 1.581 and 1.328 statistically different, or only numerically different? That is, do the data support that the association was with Hispanic ethnicity alone, or due to Hispanic ethnicity plus emigration status? (lines 209-210)

## **EDITOR COMMENTS:**

- 1. 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:
  - 1. OPT-IN: Yes, please publish my response letter and subsequent email correspondence related to author queries.
- 2. OPT-OUT: No, please do not publish my response letter and subsequent email correspondence related to author queries.
- 2. Please set your MS Word margins to 1 inch on each side. This is how the Editorial Office will determine your page count.
- 3. Each author on this manuscript must submit a completed copy of our revised author agreement form (updated in the January 2018 issue).

Please have each author actually sign their own form. It appears that several of the signatures on the submitted forms are from the same person. Please also make sure that all authors have checked off a conflict of interest disclosure. A few of them are missing.

### Please note:

- a) Any material included in your submission that is not original or that you are not able to transfer copyright for must be listed under I.B on the first page of the author agreement form.
- b) All authors must disclose any financial involvement that could represent potential conflicts of interest in an attachment to the author agreement form.
- c) All authors must indicate their contributions to the submission by checking the applicable boxes on the author agreement form.
- d) The role of authorship in Obstetrics & Gynecology is reserved for those individuals who meet the criteria recommended by the International Committee of Medical Journal Editors (ICMJE; http://www.icmje.org):
- \* Substantial contributions to the conception or design of the work;

OR

the acquisition, analysis, or interpretation of data for the work;

AND

\* Drafting the work or revising it critically for important intellectual content;

AND

\* Final approval of the version to be published;

AND

\* Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

The author agreement form is available online at http://edmgr.ovid.com/ong/accounts/agreementform.pdf. Signed forms should be scanned and uploaded into Editorial Manager with your other manuscript files. Any forms collected after your revision is submitted may be e-mailed to obgyn@greenjournal.org.

4. In order for an administrative database study to be considered for publication in Obstetrics & Gynecology, the database used must be shown to be reliable and validated. In your response, please tell us who entered the data and how the accuracy of the database was validated. This same information should be included in the Materials and Methods section of

the manuscript.

5. Please submit 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), and quality improvement in health care (ie, SQUIRE 2.0). 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, or SQUIRE 2.0 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 will be transitioning as much as possible to use of the reVITALize definitions, and we encourage authors to familiarize themselves with them. The obstetric data definitions are available at http://links.lww.com/AOG/A935.
- 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 22 typed, double-spaced pages (5,500 words). Stated page limits include all numbered pages in a manuscript (i.e., title page, précis, abstract, text, references, tables, boxes, figure legends, and appendixes).

Please limit your Introduction to 250 words and your Discussion to 750 words.

- 8. Titles in Obstetrics & Gynecology are limited to 100 characters (including spaces). Do not structure the title as a declarative statement or a question. Introductory phrases such as "A study of..." or "Comprehensive investigations into..." or "A discussion of..." should be avoided in titles. Abbreviations, jargon, trade names, formulas, and obsolete terminology also should not be used in the title. Titles should include "A Randomized Controlled Trial," "A Meta-Analysis," or "A Systematic Review," as appropriate, in a subtitle. Otherwise, do not specify the type of manuscript in the title.
- 9. Specific rules govern the use of acknowledgments in the journal. Please edit your acknowledgments or provide more information in accordance with 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 signature on the journal's author agreement 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).
- 10. 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.

- 11. Abstract-Objective: Please edit this sentence so that it begins with, "To...".
- 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' (College) documents are frequently updated. These documents may be withdrawn and replaced with newer, revised versions. If you cite College 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. 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 a College document has been withdrawn, it should not be referenced in your manuscript (exceptions could include manuscripts that address items of historical interest). All College documents (eg, Committee Opinions and Practice Bulletins) may be found via the Resources and Publications page at http://www.acog.org/Resources-And-Publications.

16. Figures

Figures 1-3: May be resubmitted as-is.

Figure 4: This figure will likely not fit on one print page. You might want to consider breaking this figure up into 3 separate figures, or moving it to supplemental digital content.

Figure 5: Please consider breaking this up into two separate figures (1 figure for the top graph and another figure [A and B] for the bottom graphs).

17. 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, that each author has given approval to the final form of the revision, and that the agreement form signed by each author and submitted with the initial version remains valid.

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 Oct 18, 2018, 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

In response to the EU General Data Protection Regulation (GDPR), you have the right to request that your personal information be removed from the database. If you would like your personal information to be removed from the database, please contact the publication office.

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#### **Reviewer Comment**

Reviewer #1: In this manuscript, the authors present a clever use of Google analytics to investigate how rhetoric around immigration reform has impacted prenatal care use among Hispanic women in Houston, Texas. Both sides of increasingly polarized viewpoints would agree something has to be done about immigration. I appreciate the authors statements that they are not seeking to wade into that mess but rather to document how rhetoric can impact access to care. Social determinates of care are important - very important - and access to care as a driver of population outcomes can be impacted by a wide range of anticipated and unanticipated factors. I couldn't help but think about Harry Potter in considering the conclusions of this study. "He Who Cannot Be Named" was the reference to Lord Voldemort used by most throughout the book series. In the series finale, as the dark forces were descending on the castle, Filius Filtwick and Minerva McGonagall have the following dialog:

Filius Flitwick: You do realize, of course, we can't keep out You-Know-Who indefinitely.

Minerva McGonagall: That doesn't mean we can't delay him. And his name is Voldemort. Filius, you might as well use it. He's going to try to kill you either way.

The connection to Harry Potter to this study is that immigration reform is needed and if in discussing it we impact some social determinate of health then does that mean we shouldn't talk about the reform? Even if the terms used to represent the "sides" of the discussion are less inflammatory the message may still negatively impact how people the discussions may impact.

## Response

We wish to thank reviewer 1 for the most delightful construct we have received from a reviewer to date. The Harry Potter comment was poignant, as one of the co-authors is the young adult son of the senior author. Her working knowledge of Harry Potter arises from reading the series to him as a young boy. Fast forward 15 years, and in the context of working on this project as part of his summer internship at Baylor College of Medicine, we have arrived back at Hogwarts.

But we digress.

While we concur with the reviewer that immigration reform is needed, that is not the impetus nor the objectives of this current study. We do agree that our work supports the notion that until plan and process are in place we risk political rhetoric being the greater influence of access to health over well-designed policy.

We have amended our conclusion to better state this position without addressing means or modes of reform per se. It now reads: "With that said, it is evident that there is an imminent need for immigration reform yielding transparent and acceptable policies. Until such policies are constructed and implemented, there is an evident risk that political rhetoric will continue to bear a significant influence on health disparities in the U.S. In this report, we have documented the impact of such rhetoric as a significant decrease in the numbers of routine prenatal care visits and a delay in prenatal care establishment for pregnant women of Central American and Mexican origin. As had been documented for decades, insufficient access and receipt of prenatal care only increases the occurrence and severity of maternal and infant morbidity and mortality and propagates health disparities. In so much as obstetrician gynecologists are acknowledged advocates of equitable care for women and their infants, it is incumbent on us to provide objectively acquired scientific data. It is our hope that ours and others data may be used by public health policy experts to design, enable, and enact well-informed policies with a unified goal of not allowing rhetoric to dictate health outcomes,

and to mitigate health disparities whenever possible."

In the introduction, we now state "The aim of this study was not to argue for or against any policy nor practice of immigration reform, but rather to identify whether an association exists between anti-immigrant rhetoric and receipt of adequate prenatal care among subjects who deliver in a U.S. based hospitals."

We are happy to work with the editors to strike a good balance of meeting the goals of Reviewer 1 and avoid overstepping the intent and limits of our study. Please advise us if further change and edits might enable us to strike this balance.

Reviewer 1.1: Overall the manuscript is very well written. I think, however, the introduction could be shorter.

Thank you. We have done so, as further specified by the editors, to be no more than 250 words.

Reviewer 1.2: Why were the 3 search terms chosen? If less inflammatory terms were used in the search, presumably the same trends in prenatal care would be identified since they are driven by other factors (plausibly the chosen and like terms). The authors admit they cannot establish causality so then does it matter that ice cream cone sales nadir with the number of ski accidents? It is strongly implied that the chosen terms, being generally regarded as more inflammatory, mark a point in which immigrant sentiments became more divisive and that that divisiveness is a driver of health-seeking behaviors...but you can't really say that this is the case and in a sense you add to a mess that is already short on facts.

We thank the reviewer for this comment, and we think it raises an excellent point. We have modified the methods to now read:

"Defining before and after rhetoric periods. Publicly available Google search trends were mined for the search terms "Make America Great Again", "Mexico wall" and "Deportation" by region, including the southern United States (as defined by trends.google.com/explore/subregion, including Texas, New Mexico, Oklahoma, Arkansas, Louisiana, Alabama, Mississippi, the Carolinas, Florida, Georgia, and Tennessee). These terms were chosen for their relation to common themes of the debate and accompanying political rhetoric surrounding immigration in the southern United States over our study time period and similarity of geographic region. Our choice of terms was further based on their representation of explicit (deportation, Mexico wall) and implicit (Make America Great Again) antiimmigrant sentiment. Since our population-based study aimed to determine the significance of association as a large permeation and not just by usage of the terms, Google trend by a priori defined subregion and limited terms enabled best estimations true to the focus of the study in a contemporaneous region and time period. The time of first deviation from the mode Google search popularity value for each term was ascertained (mode inflection date). A mode inflection date of 7/1/2015 was extrapolated from the Google trend analytics and used to define the period prior to large scale change in trends in rhetoric use pre (before rhetoric) and post (after rhetoric) (Figure 1). No subject-specific data was used in determining

Reviewer 1.3: What defines the "Southern United States?" Google searches do vary by region. Would the inflection point vary in a different region? I am reminded of C. Vann Woodward's book, "The Strange Career of Jim Crow." In this fascinating read, Woodward argues that Jim Crow laws and segregation were not part of the pre-Civil War South and that their development was not unavoidable. There are stereotypes of the South that do not necessarily align with a regrettably silent proportion of the society - what is said (or searched) is not what is necessarily believed or acted on.

these search terms, thus the terms and their inflection date were naïve to the primary outcome."

We thank the reviewer for this comment and the opportunity to clarify. Our goal was to be contemporaneous in region and time to our outcome measures. As noted above, we have revised the methods to be explicit and enable others to better replicate our findings.

Reviewer 1.4: How were normal and non-normal data defined?

We thank the reviewer for this comment. Given the large sample number, the normality of each data category was visually determined using histograms and normal Q-Q plots. We now state on page 11, "Groups of interest were compared by chi-square or Fisher's exact test for categorical variables, t-test for normally distributed continuous variables, and Wilcoxon rank sum test for non-normal continuous variables. Given the large sample number, the normality of each data category was visually determined using histograms and normal Q-Q plots. Linear regression was performed for the trend in the before and after rhetoric groups."

Reviewer 1.5: I seem to be missing where Table 3 is mentioned in the results. This table seems to be undermining the study message. After Rhetoric Increase either there was no change in the rate of inadequate prenatal care (non-native folks) OR matters improved (everyone else). The same basic message seems to be depicted in Figure 2 - wouldn't the rate be a better measure of what's going on across time than total number of visits? The hemoglobin nadir seems to show similarly neutral news across site of birth. You argue that no change is bad because everyone else got better over the same time period but if overall inadequate PNC is down is maternal M&M similarly better over this same time period (I kind of thought things were getting worse?). Are these improvements in PNC random or systematic?

We thank the reviewer for this comment. For the sake of clarity, we have removed table 3 and inserted the n values and the p-values as indicated to remove data redundancy. Systematically evaluating the quality of maternal prenatal care is challenging, and as such attempted to quantify it using multiple approaches, both in terms of singular measurements (total prenatal visits, etc) and as a composite (inadequate prenatal care). Using the demographic of US-born non-Hispanic women as a proxy for the overall trend in prenatal health care in Houston, we can see that there is a trend toward improved care over time. However, we note that these trends don't apply to Non-US-born Hispanic women, especially since the increase in antiimmigration rhetoric. Thus, the improvements in PNC which would be implied to be systematic failed to apply to immigrants.

We have not reported on mortality.

We have modified the Tables to now include Table 1 in the main manuscript, and Supplemental Table 1 and Supplemental Table 2 as on-line data to enable better clarity and limit confusion.

Reviewer 1.6: Line 199 - Is it really necessary to write in a doublenegative - fewer...inadequate = better!

Thank you for catching this. We have modified accordingly. It now reads "Thus, while all other subjects observed a drop in the rate of inadequate

accordingly. It now reads "Thus, while all other subjects observed a drop in the rate of inadequate and insufficient prenatal care, this same advantage was not seen among Hispanic U.S. non-native subjects.

Reviewer 1.7: Figure 4A - the R2 for the trends are not that impressive. In the best case, 80% of the variance around the depicted relationship is NOT explained by your line.

We thank the reviewer for this comment. While we agree with this assessment, social determinants of health are often complex and multifactorial. It is, in fact, encouraging that the associative decline in prenatal visits with time does not have an artificially large R2 as it would indicate model over-fitting or analytical artifacts. Importantly, though, we note that the R2 shown in figure 4A increased after our noted time of rhetoric increase, demonstrating a greater association of decreased prenatal visits with time among Hispanic non-native women.

As we note in our revised manuscript, "A logistic regression model was fitted to formally evaluate the association between immigrant status and inadequate prenatal care, after controlling for maternal age, education, gestational diabetes and substance use (Table 24, Figure 85A). In the time period before the rhetoric increase, less than a high school education (odds ratio, 2.214; CI 1.931-2.541) and substance use (odds ratio, 2.046; CI 1.533-2.742), but neither ethnicity nor immigrant status, were significantly associated with inadequate prenatal care. However, in the period after rhetoric change, both Hispanic U.S.-born subjects (odds ratio, 1.328; CI 1.174-1.502) and Hispanic non-U.S. born subjects (odds ratio, 1.581; CI 1.407-1.777) were significantly more likely to have inadequate prenatal care (Table 2, Figure 8). Lastly, the adjusted odds ratios for Hispanic US-born and Hispanic non-US born subjects were statistically significant from each other (p=0.006), indicating that Hispanic immigrant status withstood as a significant predictor of inadequate prenatal care in the interval after rhetoric change."

Reviewer 1.8: Overall, I thought this was a clever study. The study question ventures into some tough metaphysical territory. I like the methods but the association is just that and perhaps the waning capacity of clear-minded interpretation of data among our citizens makes sharing the association unwise? Thanks for the interesting read!

We wish to again thank Reviewer 1 for their thoughtful response and considerations. We concur that there is, as always, a risk that any of our associations could be misinterpreted—both by ourselves as investigators, and by others. We have attempted to guide readers and colleagues alike with the hope that we can enable clear-minded interpretation of the data we have assembled.

However, it is incumbent upon us as physicians and scientists to be earnest in our efforts, transparent in our approaches, and honest about our limitations and failings. We have attempted to do so herein.

If we might paraphrase in Harry Potter context...we are but imperfect muggles, doing the best science and practicing the best medicine we can in the divided times we have found ourselves in.

As per the immortal mortal words of J.K. Rawling, "Indifference and neglect often do much more damage than outright dislike."

Reflecting further on the comments of Reviewer 1 and Rawling's sage wisdom, perhaps an unintended accomplishment of this study is that it enabled our up and coming colleagues (the four leading authors) a venue to be neither indifferent nor neglectful. This study was a combination effort of their willingness to take on a tough social construct question, leverage the power of Google in creative ways, and measure whether there is an association with our patients seeking the care we advise them to receive. In taking on this question, they have shown that they are not victim to a culture of indifference nor neglect, but rather care enough to engage in a challenging dilemma with thoughtful research. This gives me, as a communicating and senior maternal-fetal medicine physician scientist, much hope for the future of our field and our country.

Reviewer 2.1: It is interesting and relevant to examine the association of political rhetoric and utilization of health services. However, this study as presented has significant flaws. The primary outcome appears to be adequacy of prenatal care; are timing and frequency (he elements of adequacy) secondary aims? Where did anemia come from? It is in results but I do not remember it being mentioned in methods (or I missed it).

We thank the second reviewer for their comments and well-reasoned concerns. By systematically addressing all four reviewers and the statistical editors concerns, we feel that we have sufficiently addressed any concerns.

We have emphasized further that adequacy of prenantal care is defined both by timing and frequency, hence our primary outcome. Anemia is a secondary outcome, and stated as such in methods and introduced in the introduction: "Alongside attending regular prenatal care visits, identifying and treating common conditions of pregnancy (such as iron deficiency anemia) serve as reasonable proxies of access to standard obstetrical care. 10-11". In methods, the revised manuscript now reads "Additional abstracted data analyzed in this study included the nadir hemoglobin value. Given that treatment of iron deficiency anemia is standard obstetrical care, mean nadir hemoglobin measures were intended to be reasonable secondary

	objective proxy measures of attainment of prenata care."
Reviewer 2.2: The comparison groups are similarly confused.  Sometimes 2: native/non-native; sometimes 3: US born non- Hispanic/Hispanic native/Hispanic non-native; sometimes more:	We thank the second reviewer for this comment and noting their confusion.
country of origin. I found this very confusing. It may be possible to include all these groups in a single analysis but it needs to be very clearly described or readers get lost.	We have aimed to clarify what our comparison groups are throughout the manuscript. However, it is paramount to our study analysis that we both compare by ethnicity, as well as country of origin. This is because one does not obviate nor exclude the other. For these reasons, we feel it is important to conduct and delineate the different analyses. Whave systematically reduced any potential for confusion by using similar terms and eliminating us of Latino, except in methods where we define Hispanic as including both Hispanic and Latino/Latina.
Reviewer 2.3: Did you test for an interaction prior to the stratified models and/or calculate difference-in-difference? Seems like these approaches are appropriate to your question and data.	Thank you for the comment. It is our understanding that difference in differences is typically used in qualitative research and intends to mitigate the effects of extraneous factors and selection bias. Difference in differences requires data measured from both the study and control groups at two or more different time periods, specifically one pre and post the "treatment". In this study, "treatment would be the inflection point.
	By study design, we are not analyzing spanning events and thus difference in differences would no apply. We would appreciate the input of the statistical editors in this regard.
	Our linear models as a means of interaction measures is as addressed to the statistical editor, and as delineated in the manuscript.
Reviewer 2.4: The authors state more than once that this study is not causal, but they use the word "impact" in the title, which is causal. So which is it?	Thank you for the comment, which has generated much discussion among the authors. It is our intento use impact rather than effect, since impact implies influence but not result. That said, we have systematically gone through the manuscript and assured that we do not imply causation where it had not been measured.
	We will defer to the editors on the use of impact, effect, or alternative. We fully acknowledge we are looking at correlation and association but not causation, and wish our language of "impact" to reflect those intents. We will modify further as suggested by the editors.
Reviewer 2.5: The study purpose statement is confused, and the confusion in the rest of the paper flows from there - study purpose should make very clear what the outcome(s) is, what the	We thank the second reviewer for this comment and acknowledge their concerns. We have

key independent variable/exposure/treatment is, what the	attempted to rectify in our extensively revised
comparison groups are. As well as any hypotheses. Please use	manuscript.
active voice.	
Reviewer 2.6: Can just say prenatal care is standard of care.	We thank the reviewer for this comment. It now
"accepted predictor" is very awkward.	reads "Routine and early prenatal care is accepted
, accepted products to 10 f accepted	as offering protection against maternal and infant
	morbidity and mortality and is a well accepted
	standard of care <sup>8-9</sup> . "
Reviewer 2.7: Anti-emigration? I was confused by the authors'	We thank the second reviewer for this comment
use of "emigration" An emigrant is someone who leaves their	and noting their confusion. We had attempted to
own country. So all non-US born persons are immigrants, none of	use public policy based standards of the terms,
them are emigrants. They are only emigrants when spoken about	which include immigrant as someone who relocates
in their countries of origin. US born people who live abroad are	to a new country with the intent of settling and
emigrants (from the US perspective) and immigrants (from	attaining citizenship, and emigrants imply transient
country of residence perspective). This analysis focuses on	and without intent of citizenship change. However,
immigrants only - or am I missing something here?	in the interest of not making a challenging topic
	more confusing we now use the colloquial
	immigrant throughout.
Reviewer 2.8: Make clear in methods that the sample is women	Thank you for the comment. We have further
who delivered. Universe and sample are not clear in abstract.	clarified whenever possible that we are looking at
	women who deliver in our hospitals and thus
	captured in our database. This is stated in the
	abstract, introduction, methods, results and
	conclusions.
Reviewer 2.9: Multiple line by line comments:	Thank you for these line by line comments, which
Line 59: here, finally, is the primary outcome	we have summarily addressed if a response was
	logical and required. We respectfully disagree with
Line 63: where did hemoglobin come from?	several of these more stylistic comments which, if
Line 65. Where did hemoglobili come from:	addressed, would lead to further confusion.
Line 65: no mention of logistic models in methods	addressed, would lead to faither comasion.
Line 63. No mention of logistic models in methods	We retained the E value in deference to prior voiced
Line 67: sample N not relevant here	concerns about implying causality where we have
Line 07. Sample Whot relevant here	not intended to do so.
Line 90 02: these year, ald citations are not year, compolling	not intended to do so.
Line 89-92: these very old citations are not very compelling -	We have assured our references are correct.
might just state that timely, adequate prenatal care is the standard of care worldwide and cite WHO and ACOG.	we have assured our references are correct.
standard of care worldwide and cite who and ACOG.	
05 1 11 6 12	
Line 95: what is a policy of community avoidance?	
Line 102-107: study purpose statement was confusing. I got	
confused about the outcomes and what you are testing.	
Line 112: Move IRB approval to the end of methods	
Line 115-117: here authors describe comparison groups by	
ethnicity and nativity - but this did not really describe which	
groups would be compared in which analyses, did not prepare me	
for the way results are presented	
Line 165: E-value is not really relevant here - you do not have a	
causal inference analysis set-up/design. You could use the E value	
to estimate the elvel of unmeasured confounding would need to	
The state and are an area and area as a second and area as a second and area as a second ar	

be present to change your results/associations, but nothing to do with causal inference in this study - or am I missing something?

Lines 190-192: this belongs in methods

Line 197-198 is repetitive, that is in methods

Lines 199-201: present this fist, this is the primary outcome (if I have understood correctly)

Begin with a summary of your findings, highlighting what you want the reader to remember.

Perhaps begin discussion with paragraph beginning at line 220.

Line 238: where did gestational diabetes come from ?!?! Not mentioned in methods or results.

Line 261-2634: delete. This adds nothing to your study.

References appear mixed up.

Reviewer 2.10: Tables 1 & 2 did not make sense to me: if there are 3 groups, present Table 1 by the 3 groups. Make a decision about how to present the sample - only 1 Table 1. A web appendix is an option if you want to provide more detail or other ways of looking at the data. But deciding how to present Table 1 is part of the analyst's job - every analysis is a series of decisions about which information to privilege and how to present it.

Table 2 and Fig 5 re identical, is that correct? Fig 5 is easier to understand - can "see" the crude difference-in-difference well. Just add p values to the graph

I got confused about who was in each analysis/results (Table/figure). Which analyses included the US born non-Hispanic versus native/non-native among Hispanics.

We wish to again thank Reviewer 2 for their thoughtful comments regarding our data presentation.

We wish to respond to these comments by offering the following clarifications and revisions:

- 1) We have revised Table 1 to highlight the 3 major groups and moved now Supplemental Tables 1 & 2 to on-line supplemental.
- 2) We have elininated Table 3 and inserted the n values and the p-values as indicated to remove data redundancy and to preserve clarity.
- 3) We have attempted to clarify who is included in each analysis with more discrete labeling and clear definitions.

We are happy to revise further if deemed necessary or potentially helpful.

Reviewer 3.1: Chu and colleagues have submitted what could become an important piece of scholarship in our field, measuring markers of inadequate prenatal care in vulnerable populations pre and post a marked change in anti-immigrant rhetoric (7/2015). The sample size and granular detail available to them via the prospectively collected PeriBank, as well as their geography in Texas, give them a unique strength of position from which to write and analyze data.

We thank the third reviewer for their insightful comments and encouragement. We have significantly revised the manuscript to address both the referred to granular statistical comments, as well as the broader data presentation issues.

I will leave a critical assessment of the methodology used here to the journal's statistical reviewer. My comments are grouped in two domains --

## Reviewer 3.2: Readability:

This piece could benefit from a tightening around the choice of language used throughout. Many of the terms used are less than familiar to readers of standard ObGyn journals, and clarity, precision, and consistency are important.

## Examples include:

- Rhetoric is alternately described as "anti-immigrant" or "anti-immigration" or "anti-immigration/anti-emigration" throughout, and those are clearly related though independent constructs (being against the people themselves, or against the policies/culture surrounding movement of people). I recommend you thoughtfully select one construct and use it consistently throughout.
- Similarly, the use of the adjective "political" in front of "rhetoric" throughout much but not all of the manuscript caught my eye. I would imagine that while much of the rhetoric you picked up on your Google search analysis was political, certainly not all of it is. My personal bias is that political rhetoric has bled into increased rhetoric in many civic domains (church, school, etc), and I'm not sure that using the word "political" here is needed (or wholly accurate).
- The same population of subjects are alternatively described as "non-US born," "US non-natives," and "non-US native born," which is distracting for a reader. Consistency is needed here.
- Finally, the "after rhetoric" period is alternately identified as "after the increase in anti-immigration rhetoric," "after rhetoric change," and "after the rhetoric increase." I recommend that you keep the language around your exposure consistent.

We thank the second reviewer for these comments and noting their confusion. We have addressed our group designations earlier.

We will respond to each point in order,

- 1) Thank you for your great comment. We feel that anti-immigrant and anti-immigration are both unique classifications that are both represented by the search terms used, but have revised the manuscript to only include terms of "immigrant" and not "emigrant".
- 2) We have changed the document to more accurately reflect whether the rhetoric was or was not political in nature, whenever possible.
- 3) We systematically revised to be consistent and eliminate redundancy.
- 4) This is a really excellent point, which we had not considered. We revised so that "After Rhetoric" is now "After Rhetoric Change." We concur that this improved consistency of exposure measures.
- 5) We have made changes to address the issues and ensure reader ease.
- 6) We have addressed our group designations previously, and refer the reviewer to our earlier revisions.

## Interpretability:

- Throughout the manuscript, there are many instances where the comparator/referent is not identified. As a reader, I had to pause, read the sentence again, and think through the unspoken "when compared to ..." Please add those as appropriate. Examples include but not limited to lines 178, 179, 200.
- The subject groups are challenging to think through, particularly as they do not have wholly distinct sounding names.
  "Hispanic/native born," "non-Hispanic/native born,"
  "Hispanic/non-native born," and "non-Hispanic/non-native born."
  I don't know if you can think of a way to make these groups read as more distinct to your reader -- but something is needed in both the text and the tables to help the reader hold these groups as independent.
- 7) We thank the third reviewer for this comment and noting their confusion. We have addressed our group designations and reference comparisons systematically.
- 8) Thank you for your great comment. While we agree that a political impartiality disclaimer should not be necessary in a scientific journal, we felt that the political climate requires a mention of impartiality and statement of intent to inform rather than reform. Nonetheless, we have attempted to refine our posture and now state "The aim of this study was not to argue for or against any policy nor practice of immigration reform, but rather to identify whether an association exists

### Smaller comments:

- You do something very unusual in both the introduction and the discussion, which is to assume a defensive/protective posture assuring the reader that you are not making an argument for or against policies around immigration reform. Of course you are not, and the inclusion of such text feels wholly out of place in a scientific journal. Perhaps a marker of the times, yes, but my strong hope is that you and the journal would agree that defensive posturing around science is not needed.
- Preventive, not preventative.
- In the abstract, you put the inflection date in the Results section, and in the paper, you put it in the Methods section. My belief is that it belongs in the Results section, but either way, recommend being consistent.
- The references for the APNCU are old (1990s) and related to Kotelchuk. Is this the same metric that others refer to as the Kotelchuk index? If so, please include that. If not, I think you may need other references. .
- Line 197-98 is redundant. That information is available in the methods section.
- The first paragraph of your discussion reads more like an accompanying editorial piece than a discussion. I would start that section with your second paragraph.
- You use the word "rigorous" rigorously! Line 247, 248, and 252.

between anti-immigrant rhetoric and receipt of adequate prenatal care among subjects who deliver in a U.S. based hospitals."

Our conclusion is revised to now read "With that said, it is evident that there is an imminent need for immigration reform yielding transparent and acceptable policies. Until such policies are constructed and implemented, there is an evident risk that political rhetoric will continue to bear a significant influence on health disparities in the U.S. In this report, we have documented the impact of such rhetoric as a significant decrease in the numbers of routine prenatal care visits and a delay in prenatal care establishment for pregnant women of Central American and Mexican origin. As had been documented for decades, insufficient access and receipt of prenatal care only increases the occurrence and severity of maternal and infant morbidity and mortality and propagates health disparities. In so much as obstetrician gynecologists are acknowledged advocates of equitable care for women and their infants, it is incumbent on us to provide objectively acquired scientific data. It is our hope that ours and others data may be used by public health policy experts to design, enable, and enact well-informed policies with a unified goal of not allowing rhetoric to dictate health outcomes, and to mitigate health disparities whenever possible."

9) We have systematically addressed each of the smaller comments throughout the manuscript. We have appropriately cited the initial Kotelchuk index and the APNCU, which replaced it to become the "gold standard".

Reviewer 4.1: This topic is extremely important given what we know about social factors and their ability to significantly impact public and personal health. I think specifically this paper also notes interesting examples of intersectionality that we presume exist, and supports their association with negative health outcomes.

Thank you for the comment, for which we are grateful.

Reviewer 4.2: I appreciated using Google searches to identify trends in rhetoric. Was "Mexico Wall" together the actual term incorporated? Do you think results would have changed significantly by unlinking the works and then including them in the search with the other terms individually? This also specifically focuses on anti Latino rhetoric, as is the focus of your manuscript it seems and so should be stated. While often Latino and immigrant align, and as noted throughout the manuscript sometimes there are differences between immigrant and non-immigrant latinos, it is important to note there may be

We thank the fourth reviewer for their insightful and very thoughtful comments. We have attempted at every juncture to delineate when we are considering U.S. born versus non U.S. born, and Hispanic versus non-Hispanic. We further delineate by country of origin. In response to the three other reviewers requests, we collapsed our Hispanic/Latino into Hispanic.

differences between latino and non-latino immigrants, particularly if the rhetoric being observed was anti-immigrant targeted at a different group (muslims for example). I think very clear definitions of your target group of interest (ie latino immigrants), intervention (ie anti-latino immigration rhetoric) and outcomes would strengthen the manuscript greatly.

Were all interviews conducted in english or Spanish? Similar to terminology for ethnicity, while I am sure many Latinos native language is Spanish, many Latinos (including Mexican, central and south American natives) have "native languages" other than spanish or english. Were these also included? Did exclusion criteria include primary language not english or Spanish? If only latinos of Spanish speaking countries were included, than likely the term that you should stick with is Hispanic since that identifies by language (Spanish) and not geography (Latin America).

As stated in the abstract and methods, interviews were conducted in their native languages. This may include Spanish, or Portuguese, or French, to name a few.

Reviewer 4.3: Identifying low Hb as a well established index for pregnancy outcomes earlier in the paper would have been helpful for me.

We thank the fourth reviewer for this comment, and refer them to the comments and our responses earlier.

Reviewer 4.4: When talking about public health barriers in the introduction, I would stick to well defined words for levels (internalized, institutionalized, etc).

In the intro mention of undocumented patients is made for the first time. Did you assess legal vs illegal immigration status among non-us latinos and non-latinos?

The stated aim at the end of the introduction is different than previously stated. Prior statements correctly suggest measuring an association whereas here it states that the impact of anti-immigration political rhetoric on receipt of prenatal care was to be measured.

I would include as a limitation inability to capture women who have no prenatal care, have cnm/provider outside the hospital, and deliver outside of the hospital as this may show stronger support for your work. additionally immigrants who agree to enroll/sign consent/participate may be a different group (less fear/identify less as a target) than those who do not consent to participate? Do you think prior PNC history in other pregnancies is influential in access for these women and could potentially confound?

How do we know that these two hospitals together are representative of the general population of births in Houston? Are there other hospitals? Is this information generalizable to the latino population outside of Texas?

We thank the second reviewer for their comments and well-reasoned concerns.

We have systematically addressed each of these further. We have delineated these limitations accordingly, stating, "Our study's primary limitation is the relative fewer number of cases since the rhetoric inflection point. Thus, detection for morbidity and mortality is likely relatively underestimated and underpowered, therefore limiting our conclusions. Our study is additionally limited by its inability to determine causation and inability to capture patients who go on to deliver in other hospitals or have no prenatal care. There may be unmeasured and unaccounted for confounding which we have not considered, and we thus make no statements regarding causality and rather present our findings as temporal associations. Influence of prior prenatal care experience and outcomes that may have influenced the current pregnancy fall outside the scope of this analysis and would be of interest for future investigations. Here, prior prenatal experience and access to care must be acknowledged as a potential occult confounder.

Our reference describing our database and biorepository, PeriBank, is cited. (reference 16) We further stated in our revised manuscript "Additionally, generalizability of our conclusions to Hispanic and Latino populations outside of Houston would require further investigation."

Statistical editor 1: Tables 1, 2: Need units for maternal age, BMI, GA age. Gravidity and Parity can only have integer values. Should cite as median(range or IQR) or as categories. Comparisons of gravidity and parity should be based on comparison of medians or categories.	Excellent suggestion, and we have done so.
Statistical editor 2: Table 4: Should include a footnote stating the factors retained in the adjusted model and should include columns for unadjusted ORs for comparison. The p-values could be cited as footnote, since whether the aORs were significant can be determined by inspection of the respective Cls.	Excellent suggestion, and we have done so.
Statistical editor 3: Suggest including a table summarizing analysis of Hemoglobin values. It is not clear from Fig 3 that the differences in hemoglobin are associated with p-values of < 0.001, as stated in abstract, lines 62-63. As space allows, would include more quantitative information in the abstract, such as outlined in Table 3.	Excellent suggestion, and we have done so and included a supplemental table with hemoglobin values.
Statistical editor 4: Methods: Should explain to the reader whether there were any changes in Medicaid enrollment criteria or other avenues for uninsured to obtain pre-natal care during the period 2011-2017 in Texas. (lines 213-219)	Excellent suggestion, and we have done so.  We specifically address this, and in our revised manuscript "Over our study interval, which is temporally coincident with the Affordable Care Act (ACA)20-25, we observed a decrease in insufficient and inadequate prenatal care among all cohorts except Hispanic U.S. non-native subjects. Whether it is fear or social isolation driving these women away from seeking timely and sufficient prenatal care, numerous studies have demonstrated a relationship between lack of prenatal care and an increased risk for poor prenatal outcomes such as low birth weight and preterm delivery27-29Regardless of the availability and accessibility of services, our research adds to a growing body of evidence showing that recent political anti-immigration sentiments are being heard by our patients, and that immigrant populations are either avoiding, not seeking, and ultimately not receiving recommended care during pregnancy."  We would remind the editor that Texas was not a Medicaid expansion state.
Statistical editor 5: Fig 3a, lines 184-186: As can be seen in Table 1, the number of women from South America is a small fraction of the other groups and there is little power to detect a difference before vs after for such a small subset. Need to acknowledge lack of sample size to make a generalization about that group or compare them to the much larger groups.	Medicaid expansion state.  Excellent suggestion, and we have noted so within our results. We now state, "However, given the much smaller number of South American women in our cohort, we likely lack the adequate power necessary to make comparisons to or generalizations about this demographic." We had to move this out of the discussion due to word limitations.

Statistical editor 6: Fig 5: Title or footnote to forest plots should make clear that the odds referred to are odds of inadequate prenatal care.	Excellent suggestion, and we have done so.
Statistical editor 7: After rhetoric increase, the aORs for both Hispanic US native and Hispanic Non-US native changed from NS to significant. Were the aORs of 1.581 and 1.328 statistically different, or only numerically different? That is, do the data support that the association was with Hispanic ethnicity alone, or due to Hispanic ethnicity plus emigration status? (lines 209-210)	Excellent suggestion. An alternate comparison of the aOR demonstrates that these values are statistically significant (p=0.006), demonstrating that the association was due to Hispanic ethnicity plus emigration status. This is delineated in the text as previously noted.
Editor comments. All have been systematically addressed.  Of note: Figures 1-3: May be resubmitted as-is.	Excellent suggestions, and we have completed each resulting in an expanded number of figures, removal of tables to supplemental, and significant revisions as noted.
Figure 4: This figure will likely not fit on one print page. You might want to consider breaking this figure up into 3 separate figures, or moving it to supplemental digital content.	The introduction is now 250 words, and the discussion is 743 words.  All other editorial guidelines have been met as
Figure 5: Please consider breaking this up into two separate figures (1 figure for the top graph and another figure [A and B] for the bottom graphs).	listed.

From:
To:
Randi Zung

Subject: RE: Your Revised Manuscript 18-1609R1

Date: Wednesday, October 17, 2018 12:59:29 PM

### Thanks Randi

That is strange, since the ZIP folder was only 1MB and I did not receive an error on my end.

Thanks. I have already corrected the figures with Stephanie earlier this morning.

Best Kjersti

From: Randi Zung [mailto:RZung@greenjournal.org]
Sent: Wednesday, October 17, 2018 11:56 AM
To: Aagaard, Kjersti Marie
Subject: RE: Your Revised Manuscript 18-1609R1

Dear Dr. Aagaard:

I just received your forwarded thread. It appears your attached zipped files were too large and were preventing the email from being delivered.

I will edit the CIs in the Abstract back to 1.407-1.777 for consistency. Thank you for confirming the table renumbering.

I am sending your manuscript text to the Manuscript Editor for a final review. If you have any remaining figure queries, you will need to resolve them with Stephanie Casway.

Thanks, Randi

From: Aagaard, Kjersti Marie

**Sent:** Wednesday, October 17, 2018 12:52 PM **To:** Randi Zung < RZung@greenjournal.org> **Subject:** RE: Your Revised Manuscript 18-1609R1

Please see below responses in red.

From: Randi Zung [mailto:RZung@greenjournal.org]
Sent: Wednesday, October 17, 2018 11:47 AM
To: Aagaard, Kjersti Marie
Subject: RE: Your Revised Manuscript 18-1609R1

Dear Dr. Aagaard:

I still have not seen your original message come through my inbox. I have also checked my spam folder. Is the email address correct, <a href="mailto:rzung@greenjournal.org">rzung@greenjournal.org</a>?

Thanks, Randi

From: Aagaard, Kjersti Marie

**Sent:** Wednesday, October 17, 2018 12:44 PM **To:** Randi Zung <<u>RZung@greenjournal.org</u>> **Subject:** RE: Your Revised Manuscript 18-1609R1

You should have received the forward of the original email from Friday. Please confirm receipt.

Best Kjersti

From: Randi Zung [mailto:RZung@greenjournal.org]
Sent: Wednesday, October 17, 2018 11:32 AM
To: Aagaard, Kjersti Marie

**Subject:** RE: Your Revised Manuscript 18-1609R1

Dear Dr. Aagaard:

I did not receive the previous message from Friday, but I just reviewed the file you sent. I have a few minor queries:

1. Abstract-Results and Page 12: In the final sentence of the Abstract-Results, you edited the aOR to "1.581." I noticed that this appears on Page 12, but the CIs listed in the Abstract do not match what you have on Page 12. Should this be "1.407-1.777" like on Page 12? The data should be consistent everywhere. Please update the text in the Abstract.

I rounded the CI values in the abstract. Please feel free to leave as 1.407-1.777 if your prefer.

2. Line 203: Your "Supplemental Table 1 – Nadir Hemoglobin" that appeared at the very end of this manuscript file needed to be relabeled because it appears after Table 3, but before the table you had as Table 4 in the manuscript. I have cited this as Table 4. Previous Table 4 has been edited to say Table 5. I also reordered the tables at the end of the file. Please review the citations for the tables to make sure they are correct.

That is fine, and they are correct.

Would you please review the attached version (v3) and make any final edits to the text? If possible, we need your edited version by tomorrow at 2 PM ET.

Thanks, Randi

From: Aagaard, Kjersti Marie

Sent: Wednesday, October 17, 2018 12:05 PM

**To:** Randi Zung < RZung@greenjournal.org>

Subject: FW: Your Revised Manuscript 18-1609R1

**Importance:** High

I sent this to you last Friday at approximately 6 pm. I have attached again here, and will reforward that original email.

Best

Kjersti

From: Randi Zung [mailto:RZung@greenjournal.org]

Sent: Wednesday, October 17, 2018 10:58 AM

**To:** Aagaard, Kjersti Marie **Subject:** RE: Your Revised Manuscript 18-1609R1

Dear Dr. Aagaard:

Just checking in. Please let me know when Dr. Chescheir can expect to receive your edited manuscript. The deadline for the next available issue is about to close.

Thanks, Randi

From: Aagaard, Kjersti Marie

**Sent:** Friday, October 12, 2018 10:39 AM **To:** Randi Zung <<u>RZung@greenjournal.org</u>>

**Cc:** Josh Aagaard ; Chu, Derrick Michael ; Whitham,

; Rac,

Megan ; Eppes, Catherine Squire

Martha ; Gandhi, Manisha

**Subject:** RE: Your Revised Manuscript 18-1609R1

Importance: High

Hi Randi

I have copied each of the noted authors here, and will assure they complete their links and completed authorship forms to standard.

I will respond with the remainder shortly, and further edit.

Many, many thanks Kjersti From: Randi Zung [mailto:RZung@greenjournal.org]

Sent: Friday, October 12, 2018 9:21 AM

**To:** Aagaard, Kjersti Marie

**Subject:** Your Revised Manuscript 18-1609R1

\*\*\*CAUTION:\*\*\* This email is not from a BCM Source. Only click links or open attachments you know are safe.

Dear Dr. Aagaard:

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 Editor has made edits to the manuscript using track changes. Please review them to make sure they are correct.
- 2. Title: "Words Matter" was edited so it's the subtitle, since the rest of the phrase indicates what the study is about.
- 3. Please ask the following authors to respond to his/her authorship confirmation email. We emailed him/her at the email addresses below. The email contains a link that needs to be clicked on. The sender of the email is EM@greenjournal.org.

Derrick M. Chu

Joshua Aagaard

Megan Whitham

Catherine Eppes

- 4. Please provide completed author agreement forms for **Martha Rac and Manisha Ghandi** using the latest version of our author agreement form, which can be found at <a href="http://edmgr.ovid.com/ong/accounts/agreementform.pdf">http://edmgr.ovid.com/ong/accounts/agreementform.pdf</a>. Note that **both** the "Authorship" and "Disclosure of Potential Conflicts of Interest" sections need to be completed, along with providing a signature. Please read the form carefully.
- 5. Line 49 (Use of terminology for study population): Throughout your submission, you switch back and forth between Native and non-native and US-born and non-US-born. Would you please use "U.S. native and U.S. non-native" throughout? The Production Editor will be sending separate queries to address this in the figures as well. Whatever you decide to use needs to be consistent in the manuscript and tables/figures.
- 6. Line 71: Where are these data stated in the body of your paper? If the data are not contained in the text, tables, or figures, please add them.

- 7. Line 74: Please avoid causal language throughout the manuscript. Is this edit okay? If so, please edit all similar phrasing.
- 8. Line 88, Line 128, Line 152: The journal style does not include the use of the virgule (/) except in numeric expressions. Please edit here and in all instances. Should this be "and" or "or"?
- 9. Line 132: This should be "Southern"?
- 10. Line 203: Where are Figure 3B and Figure 3C cited in the text?
- 11. References: Please add the information for reference 14. If this is an error, please renumber the subsequent citations accordingly.
- 12. Supplemental Tables: Your manuscript isn't overly long, so the supplemental tables can stay in print.
- 13. Page 23 (Supplemental Table 3): Please cite this table in the text in order at first mention with the other tables. You may need to renumber your tables. Also, define "n.s." in the footnote.

To facilitate the review process, we would appreciate receiving a response by October 16.

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

1. 202 311 2311 | 1. 202 173 00

http://www.greenjournal.org

From:
To: Stephanie Casway

Subject: RE: O&G Figure Revision: 18-1609

Date: Wednesday, October 17, 2018 11:18:26 AM

Attachments: Figure 8.tif

## Hi Stephanie

Cc:

I have reviewed these carefully, and see the following errors:

- 1. Legend to figure 3. To be consistent, the last sentence should be "U.S. native patients shown as reference, stratified by non-Hispanic or Hispanic ethnicity." In addition, the annotations were lost and need to designate as "++, p<0.001; +, p<0.01; \*p<0.05"
- 2. There is a missing period after Figure 8., and overall should read "Figure 8. Predictors of inadequate prenatal care." In addition, we correct the figure previously, and in panel B the numbers for Hispanic U.S. non-native and Hispanic U.S. native were swapped. The first should be 1.581 (1.407-1.777) and the second should be 1.328 (1.174-1.502). I have attached here again.
- 3. On the Y axis labels in Figures 4,5,6, in panel B it has been changed from Days to first prenatal visit to Delay to first prenatal visit (days). This is actually incorrect and suggests that everyone was "delayed". If the goal is to put a descriptor and then identify days, that is fine but it should be Time OR Interval and not Delay until first prenatal visit. Alternately, I think as we had it was fine as well. Similarly, in panel C for Figures 4,5,6 we are actually looking at nadir not average Hemoglobin. Thus, if you wish to specify beyond Hemoglobin it should be Nadir or Lowest Hemoglobin as the qualifier, not Average.

Best Kjersti

From: Stephanie Casway [mailto:SCasway@greenjournal.org]

Sent: Tuesday, October 16, 2018 9:24 AM

**To:** Aagaard, Kjersti Marie

**Subject:** O&G Figure Revision: 18-1609

\*\*\*CAUTION:\*\*\* This email is not from a BCM Source. Only click links or open attachments you know are safe.

Good Morning Dr. Aagaard,

Your figures and legend have been edited, and PDFs of the figures and legend are attached for your review. Please review the figures CAREFULLY for any mistakes. In addition, please see our queries below.

AQ1: Please provide significant P values for the glyphs in Figure 3.

AQ2: Note that axis labels have been edited for consistency. If any are incorrect, just let me know.

PLEASE NOTE: Any changes to the figures must be made now. Changes 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, 10/18. Thank you for your help.

Best wishes,

Stephanie Casway, MA
Production Editor
Obstetrics & Gynecology
American College of Obstetricians and Gynecologists
409 12th St, SW
Washington, DC 20024
Pb: (202) 214 2229

Ph: (202) 314-2339 Fax: (202) 479-0830

scasway@greenjournal.org