Date: Nov 19, 2018
To: "Kari White" [redacted]
From: "The Green Journal" em@greenjournal.org
Subject: Your Submission ONG-18-1938

RE: Manuscript Number ONG-18-1938

Change in second-trimester abortion after implementation of Texas House Bill 2

Dear Dr. White:

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 Dec 10, 2018, we will assume you wish to withdraw the manuscript from further consideration.

REVIEWER COMMENTS:

REVIEWER #1:

Abstract

1. Some brief description of what HB 2 is is needed in the Abstract.

2. Methods are difficult to follow and should be clarified. Seems like there are multiple studies, an observational study and a survey?

Introduction

3. Introduction is well written. Perhaps some of the background on HB2 could be simiplified and added to the Abstract?

Methods

4. What is the accuracy of the methodology for tracking clinics by interviews with "staff, requests to DSHS and reports in the press"? is this really a comprehensive method to determine facilities?

5. Similarly, if clinic staff didn't answer the phone on two consecutive days they were considered closed? What if it went to an answering service? This seems like it would be difficult to validate.

6. How can you measure timeliness to care? A wait time of 7 days in August may not be applicable to a woman who wanted an abortion in October. Was the wait time re-ascertained each moth?

7. Statistical analysis, particularly regarding geographic coding, is very well written.

Results

8. Would be helpful to describe the number of open facilities in the first paragraph.

Discussion

9. Are data on complications of abortion available? Would be important if you showed an increase in complications.

10. Inclusion of limitations would be useful.

11. Are any policy data available from other states/scenarios where restrictive abortion policies were enacted?

REVIEWER #2:

This is a well-designed and executed study looking at the impact of Texas HB 2 on second-trimester abortion rates and impact on access to abortion in Texas. The authors used a variety of methods to examine the outcomes including cross-sectional vital statistics data, mystery client calls, and information about open abortion facilities and health service region populations. This study adds to the literature in that it specifically examines potential indicators of access as individual factors contributing to the limited access and increase in second-trimester abortion provision.

Introduction:

1- Line 64 "Supreme Court issued a stay." - many readers may not know what that means, please expand

2- I would consider moving the first two sentence of paragraph 3 ("State vital statistics... fewer facilities that offer that service.") to the end of paragraph 2 to frame the issue of declining access and increasing numbers of second-trimester abortion. Then use the third paragraph to clarify your hypothesis and goals for the study.

3- Please clarify between introduction and methods what your primary outcome and hypothesis for this study is. Your hypothesis in the results section (lines 106-108 "We hypothesize that more limited access..remaining facilities.") seems like it would be more appropriate in the introduction and then use the results section to highlight in particular the aspects of access that you are looking at (i.e. 3 indicators of access: accessibility, availability and ability to accommodate).

Methods:

4-Lines 121-122, "Women living >100 miles from a facility were included in the highest category..." - This is unclear, can you clarify what you mean by "highest"?

5-Is there any data in the literature about optimal regional network size? Or other indicator of ideal quantity of clinics for a given population area?

Results:

6-Table 1 - Please include both number and % for all columns. It's confusing to only have the n for No. of abortions and % for abortions >12 weeks and makes it hard to see the differences.

7-Figure 2 - Really hard to see the number of dots/triangles and squares. Consider only placing 1of each shape/shading per metropolitan area and placing a number inside of the shape to denote how many clinics it's referring to. In Houston for example there are a number of overlapping symbols and it's impossible to actually tell how many clinics there are in each category.

Discussion:

8- Consider framing your main finding of an increase in second trimester abortions despite an overall decrease in the number of abortions.

9- Based on Figure 1, there is a significant decrease in the number of medication abortions. Consider including in your discussion as it likely relates to the HB 2 requirement for FDA label for mifepristone and multiple visits

10- Please expand on why women living > 100 miles from a facility were not more likely to have a 2nd trimester abortion, this seems counterintuitive to the decreased access issue.

11- Your concluding paragraph (lines 313-315) is weak and should be strengthened to highlight the significance of your findings and the specific impact of the laws on access

REVIEWER #3:

Thank you for this thoughtful analysis of the true clinical impact of legislation.

1. Introduction: (Line 57) Please explain to readers timing of passage of HB2 (July 18, 2013) in addition to implementation timing (November 1, 2013)

Materials and Methods

2. (Lines 93-94) Please provide clarification of mystery total calls, up to 4 calls first day and second I presume before

deciding a clinic was closed

3. (Lines 102-105) Did the 2014 legislation regarding gestational age require some months before implementation or was this an extension of HB2 that went into effect beginning of 2014?-would clarify timing of legislation to data analysis

4. The indicators are well described but lines 115-116 introduces information bias in assuming women used the nearest facility for care. The statistical reporting for the state doesn't require documentation of abortion location? Please explain why this information is not available and/or the basis of your assumption.

5. (Lines 150-153) Would offer further clarification of time period chosen (ie. Time period analyzed before passage of HB2 matched to post HB2 implementation November to October), not only that it was a focused 12-month period before law introduced (introduced 06/28/2013)

6. (Lines 166-171) How did you account for the collinearity in Model 3 Table 2 and Table 3 between the one-way distance to facility and facility network size? Did you measure the variance inflation factors to determine?

Results

7. Lines 203 to 205 refer to Table 1 (specific data to second-trimester abortion). Lines 205 to 212 refer to overall abortion data which is confusing and not well represented in Table 1.

8. Figure 3 does not add to your analysis. Would leave to description only since you are using this data for regression analysis in Table 3. Lines 243-244-it would be helpful if you know the reason the wait times decreased and this could be added to your discussion (ie-maybe they added providers?) as it appears in your figure that the San Antonio and Austin sites picked up significantly in volume to accommodate

Discussion

9. Line 281-would not say women "could waive" the 24-hour mandatory waiting period requirement as the legislation itself dictated this. Would say waiting period was reduced.

STATISTICAL EDITOR'S COMMENTS:

1. lines 42-52: Although the primary hypothesis of the study (lines 106-108) was to examine the number of 2nd semester abortions before and after HB 2, suggest contrasting in Results section that although the number of abortions in Texas decreased by 11,728 (18%), the number of second trimester abortions increased by 1537 (25%), then go into more detail re: associations with those changes.

2. lines 83-84: During the two time epochs, if there were facilities that opened or closed during the year, how was the #facilities/250,000 women then calculated?

3. lines 133-134: How was these strata chosen? Why not above or below the median or some other criteria?

4. lines 301-312: Another limitation, outside the scope of these data, is the extent to which women might use out of Texas facilities for abortion services. Also, is internet consultation for medication abortion allowed in Texas and how might that have affected the results?

5. Table 3: If the OR for obtaining an abortion at ≥ 12 wks gestation were related to distance to nearest facility, then why is there only a statistical relationship with distance 50-99 miles and not ≥ 100 miles? The Authors cite the shorter mandatory wait period, but were the number of women in such regions (≥ 100 miles) fewer than in the other distance strata?

ASSOC EDITOR-GYN

1 - The readership will not necessarily be familiar with 'Texas House Bill 2' and even though it is fully explained within the text, the Title and Abstract should be revised to reflect a more general tone - such as '...after implementation of a restrictive state law' or something that would capture the essence of the issue being explored. The point to made seems to be that any state (or country) implementing a similar law could anticipate similar findings and that this is not necessarily unique to just Texas.

2 - The Stat Editor comment above about lines 83-84 needs to be expanded: Line 49 is oddly phrased by stating '...among women in regions with <1 open facility/250K repro-aged women versus >1.5 facilities..' - how did the authors arrive at this as a measurement variable and how to make it more readily applicable to the readership.

EDITORIAL OFFICE 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. 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/A515, and the gynecology data definitions are available at http://links.lww.com/AOG/A935.

3. 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.

4. 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).

5. 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.

6. 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.

7. 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.

8. 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.

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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 Dec 10, 2018, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,

The Editors of Obstetrics & Gynecology

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

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SCHOOL OF
PUBLIC HEALTH
Department of Health Care Organization and Policy

December 23, 2018

Dear Editors,

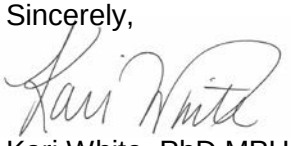
Thank you for reconsidering our submission “Change in second-trimester abortion after implementation of a restrictive state law.” Please note that we have revised our title and no longer refer to “Texas House Bill 2” so that the title has a more general tone.

We appreciate the reviewers’ and editors’ thoughtful comments and suggestions for revisions. After studying the reviews carefully, my co-authors and I have implemented many of the changes suggested in the revised version. These changes are detailed in the point-to-point response in the attached Response to Reviewers.

Of note, we have revised our methods for documenting abortion facility closures and categorization of variables so that our analytic choices are clearer to readers. We also have made any necessary changes to the text so that the manuscript conforms with journal style. We believe our manuscript has substantially improved as a result of these revisions.

Thank you for reconsidering this manuscript. We look forward to your response.

Sincerely,



Kari White, PhD MPH
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REVIEWER COMMENTS:

REVIEWER #1:

Abstract

1. Some brief description of what HB 2 is is needed in the Abstract.

Based on the Associate Editor's suggestion, we do not specifically name Texas' law in the abstract and refer to it only as a "restrictive law." Owing to space limitations in the abstract, we have not provided additional description of the law's many provisions.

2. Methods are difficult to follow and should be clarified. Seems like there are multiple studies, an observational study and a survey?

For this study, we used vital statistics data, as well as data on facility closures and appointment wait times, which we obtained using mystery client calls. We have revised the Methods section of the abstract so our data sources are clearer to readers. Specifically we state:

> "We used cross-sectional vital statistics data on abortions performed in Texas before (November 1, 2011-October 31, 2012) and after (November 1, 2013-October 31, 2014) implementation of Texas' abortion law. We conducted monthly mystery client calls for information about abortion facility closures and appointment wait times to calculate distance from women's county of residence to the nearest open Texas facility, the number of open abortion facilities in women's region of residence (facility network size), and days until the next consultation visit."

Introduction

3. Introduction is well written. Perhaps some of the background on HB2 could be simiplified and added to the Abstract?

As noted in our response above, we were unable to include a more detailed description of the provisions of HB 2 owing to space limitations in the abstract. Therefore, we have kept the background on the law as it was presented in our original submission.

Methods

4. What is the accuracy of the methodology for tracking clinics by interviews with "staff, requests to DSHS and reports in the press"? is this really a comprehensive method to determine facilities?

We relied on multiple sources of information to track clinic closures because this information was not available from a single source. We confirmed facility locations with the Texas Department of State Health Services licensing records and communication with facility staff. We also relied on multiple data sources to confirm facility closures; this included cross-checking our mystery call data with staff interviews and reports in the press. We have revised our statement on line 87 to more clearly note that we used multiple sources of data (versus relying on a single source) to track facilities providing abortion care.

We are confident in the accuracy of our data, which we have used in several other peer-reviewed publications, and our team has been recognized as the most reliable source of information about open and closed abortion facilities in Texas. (See

https://www.nytimes.com/interactive/2014/08/04/us/shrinking-number-of-abortion-clinics-in-texas.html)

5. Similarly, if clinic staff didn't answer the phone on two consecutive days they were considered closed? What if it went to an answering service? This seems like it would be difficult to validate.

During the mystery calls, we did not encounter answering services while calling during business hours. In the revision, we have augmented our explanation of how we determined a facility was closed. On lines 97-100, we state, "We considered the facility closed if clinic staff did not answer the phone on two consecutive days, the call was rerouted to another facility, the phone number was no longer in service, or if there was a voicemail message that confirmed the facility was no longer providing abortion." We also confirmed closure dates with local informants.

6. How can you measure timeliness to care? A wait time of 7 days in August may not be applicable to a woman who wanted an abortion in October. Was the wait time re-ascertained each moth?

As described on lines 89-94, we conducted mystery calls to all facilities each month beginning in January 2014. On lines 144-152, we further describe our methods for estimating the average monthly wait time in each metropolitan area. We believe this approach captures the experience of a woman trying to schedule an appointment around the time of her abortion during the initial period after many of the provisions of HB 2 went into effect.

7. Statistical analysis, particularly regarding geographic coding, is very well written.

Results

8. Would be helpful to describe the number of open facilities in the first paragraph.

The initial months after the admitting privileges requirement of HB 2 went into effect were a period of dynamic change as facilities closed (and some re-opened). We have accounted for this change in our analysis, but did not include the number of open facilities in the revised Results section since this number was shifting throughout the period. In the Introduction (lines 66-67), we do note that, "the number of facilities providing abortion in Texas declined from 41 to 19 following passage and implementation of the law," citing previous results published by our research team. We believe this statement, along with Figure 2 showing where facilities were located and the number of months some were closed, provides readers with sufficient information to appreciate the dramatic change in the availability of services following HB 2.

Discussion

9. Are data on complications of abortion available? Would be important if you showed an increase in complications.

We agree with the reviewer that it would be important to show whether there was an increase in abortion-related complications; however, the individual-level vital statistics data did not include this information.

10. Inclusion of limitations would be useful.

On lines 311-322, we note several limitations of our study, including our approach for estimating gestational age given changes in reporting and assumptions that women traveled to the nearest Texas facility for care.

11. Are any policy data available from other states/scenarios where restrictive abortion policies were enacted?

We believe the situation in Texas following HB 2 is unique in that the law had a dramatic effect on service availability and has been rigorously documented. Many prior studies assessing changes that occurred after enforcement of restrictive abortion policies are not relevant to the Texas case as they are focused on a single law addressing requirements for women (e.g., parental consent for minor teens, mandatory waiting periods) rather than omnibus laws affecting the supply side of abortion care. We have cited other literature on women's experiences accessing abortion care in restrictive contexts as those findings pertain to our study.

REVIEWER #2:

This is a well-designed and executed study looking at the impact of Texas HB 2 on second-trimester abortion rates and impact on access to abortion in Texas. The authors used a variety of methods to examine the outcomes including cross-sectional vital statistics data, mystery client calls, and information about open abortion facilities and health service region populations. This study adds to the literature in that it specifically examines potential indicators of access as individual factors contributing to the limited access and increase in second-trimester abortion provision.

Introduction:

1- Line 64 "Supreme Court issued a stay." - many readers may not know what that means, please expand

We have rephrased this statement to read "the US Supreme Court temporarily blocked enforcement."

2- I would consider moving the first two sentence of paragraph 3 ("State vital statistics... fewer facilities that offer that service.") to the end of paragraph 2 to frame the issue of declining access and increasing numbers of second-trimester abortion. Then use the third paragraph to clarify your hypothesis and goals for the study.

We agree that our hypotheses and objective could have been clearer in our original submission. In our revised submission, we moved the referenced statements on changes in second-trimester abortion to the second paragraph of the Introduction. In the last paragraph of the Introduction (line 74-76), we state our hypothesis, "Facility closures and provider shortages may have contributed to increases in second-trimester abortion; therefore, we also examined whether indicators of limited access to services accounted for changes observed." We believe this change makes our objective clearer.

3- Please clarify between introduction and methods what your primary outcome and hypothesis for this study is. Your hypothesis in the results section (lines 106-108 "We hypothesize that more limited access..remaining facilities.") seems like it would be more appropriate in the introduction and then use the results section to highlight in particular the aspects of access that you are looking at (i.e. 3 indicators of access: accessibility, availability and ability to accommodate).

As noted in our response above, we have clarified our hypothesis in the Introduction. We also deleted the referenced statement about our hypotheses from the Methods to highlight more clearly the indicators of access that we focus on in the study.

Methods:

4-Lines 121-122, "Women living >100 miles from a facility were included in the highest category..." - This is unclear, can you clarify what you mean by "highest"?

We have rephrased this sentence so as to minimize confusion about our categorization of the data. Specifically, we state, “We differentiated women living ≥100 miles from a facility (versus <100 miles) because the mandatory waiting period between the consultation and procedure for these women is reduced from 24 to two hours.” (lines 128-131)

5-Is there any data in the literature about optimal regional network size? Or other indicator of ideal quantity of clinics for a given population area?

Based on our review of the literature, there is no definition or standard for optimal network size for abortion facilities. Other indicators of the geographic availability of providers (e.g., primary care physicians per 1,000 population) use metrics that are difficult to apply to abortion care given the limited number of facilities that offer this service. Therefore, we based our categorization on the distribution of the data and have clarified our approach on lines 141-143.

Results:

6-Table 1 - Please include both number and % for all columns. It's confusing to only have the n for No. of abortions and % for abortions >12 weeks and makes it hard to see the differences.

In the revised submission, we have included both numbers and percentages for all abortions and abortions ≥12 weeks.

7-Figure 2 - Really hard to see the number of dots/triangles and squares. Consider only placing 1of each shape/shading per metropolitan area and placing a number inside of the shape to denote how many clinics it's referring to. In Houston for example there are a number of overlapping symbols and it's impossible to actually tell how many clinics there are in each category.

We thank the reviewer for this suggestion and we have revised the figure based on this feedback.

Discussion:

8- Consider framing your main finding of an increase in second trimester abortions despite an overall decrease in the number of abortions.

We rephrased the introductory statement in the Discussion (lines 271-273) to read, “The number of abortions occurring ≥12 weeks of gestation increased by 25% in the year following implementation of Texas HB 2 compared with the 12-month period before the law’s introduction and passage, despite an overall decrease in the total number of abortions.”

9- Based on Figure 1, there is a significant decrease in the number of medication abortions. Consider including in your discussion as it likely relates to the HB 2 requirement for FDA label for mifepristone and multiple visits

We previously published on decreases in medication abortion following implementation of HB 2 (see Grossman et al *Contraception* 2014; 90(5): 496-501), and have several manuscripts in preparation or under review that assess these changes in more detail and examine recent trends. Because of this, as well as space limitations in the Discussion section, we have not

included additional information on changes in medication abortion and instead maintain our focus on second-trimester abortion.

10- Please expand on why women living > 100 miles from a facility were not more likely to have a 2nd trimester abortion, this seems counterintuitive to the decreased access issue.

We agree with the reviewer that our explanation for this finding could have been clearer. On lines 290-292, we now state "This result may be attributable to these women making fewer visits to a facility because the mandatory waiting period between the consultation and abortion was reduced from 24 to two hours."

11- Your concluding paragraph (lines 313-315) is weak and should be strengthened to highlight the significance of your findings and the specific impact of the laws on access

We agree our concluding paragraph could have been stronger. In the revised version, we have revised these statements (lines 323-326) to read, "Implementation of HB 2 adversely affected multiple dimensions of women's access to abortion care, which contributed to the observed increases in second-trimester abortion. States considering similar laws restricting access to abortion can expect clinically significant changes in women's health outcomes."

REVIEWER #3:

Thank you for this thoughtful analysis of the true clinical impact of legislation.

1. Introduction: (Line 57) Please explain to readers timing of passage of HB2 (July 18, 2013) in addition to implementation timing (November 1, 2013)

On line 58 of the revised version, we state that the law was passed in July 2013.

Materials and Methods

2. (Lines 93-94) Please provide clarification of mystery total calls, up to 4 calls first day and second I presume before deciding a clinic was closed.

On lines 96-97 of the revised version, we state that we called up to four times the first day and twice on the second day.

3. (Lines 102-105) Did the 2014 legislation regarding gestational age require some months before implementation or was this an extension of HB2 that went into effect beginning of 2014?-would clarify timing of legislation to data analysis

The change in gestational age reporting began in calendar year 2014 and was related to the way in which HB 2 defined the dating of pregnancies. We have clarified the link between HB 2 and the gestational age reporting requirement on lines 108-110 of the revised version.

4. The indicators are well described but lines 115-116 introduces information bias in assuming women used the nearest facility for care. The statistical reporting for the state doesn't require documentation of abortion location? Please explain why this information is not available and/or the basis of your assumption.

We were unable to obtain the location where women obtained their abortion in the individual-level vital statistics data, as noted on line 85 and lines 118-120. Based on a 2014 survey we

conducted with women seeking abortion care at ten Texas facilities, nearly 75% of women obtained care at or within 10 miles of their nearest facility. We have included this information on lines 120-123 to support our analytic decision to use the nearest facility given the lack of data on where women obtained their abortion.

5. (Lines 150-153) Would offer further clarification of time period chosen (ie. Time period analyzed before passage of HB2 matched to post HB2 implementation November to October), not only that it was a focused 12-month period before law introduced (introduced 06/28/2013)

We thank the reviewer for this suggestion. We have revised our explanation of the time periods assessed. Specifically, on lines 159-163 we state, "We compared changes that occurred in the year after the law was implemented (November 1, 2013-October 31, 2014) with a matched 12-month period before HB 2 was introduced (November 1, 2011-October 31, 2012). We chose this timeframe for the comparison period because any changes that occurred in the service environment were unlikely due to the anticipated impacts of abortion regulations proposed in the 2013 legislative session."

6. (Lines 166-171) How did you account for the collinearity in Model 3 Table 2 and Table 3 between the one-way distance to facility and facility network size? Did you measure the variance inflation factors to determine?

The standard errors for one-way distance and facility network size changed very little when both variables were included in the model. As an additional check, we estimated the variance inflation factor (VIF) after running the regression models presented in Tables 2 and 3. The VIF ranged from 1.03 to 1.37 for the categorical indicators for one-way distance and facility network size, well below the value (VIF=10) that would raise concern. Therefore, we do not believe collinearity is a problem with our models.

Results

7. Lines 203 to 205 refer to Table 1 (specific data to second-trimester abortion). Lines 205 to 212 refer to overall abortion data which is confusing and not well represented in Table 1.

Following Reviewer 2's suggestion, we have included both numbers and percentages for all abortions and abortions ≥12 weeks in Table 1 of the revised submission. We believe this change will make it easier for readers to follow the text and compare the information to data presented in the table.

8. Figure 3 does not add to your analysis. Would leave to description only since you are using this data for regression analysis in Table 3. Lines 243-244-it would be helpful if you know the reason the wait times decreased and this could be added to your discussion (ie-maybe they added providers?) as it appears in your figure that the San Antonio and Austin sites picked up significantly in volume to accommodate

We respectfully disagree with the reviewer on this point. We believe it is useful to show readers the variation in wait times across place and time to appreciate differences in this indicator of women's access to services. However, if the editor does not feel this figure is useful, we would be happy to remove it.

The variation over time within metropolitan areas was likely due to a variety of factors, including the number of open facilities, the number of providers with privileges, and the number of women seeking care that stemmed from changes taking place in other areas. However, we do not have

more detailed information about the reasons for changes in Austin and San Antonio, specifically. Therefore, we broadly note that "women's demand for services exceeded provider availability," but mention within metropolitan variation in our statement (lines 299-300).

Discussion

9. Line 281-would not say women "could waive" the 24-hour mandatory waiting period requirement as the legislation itself dictated this. Would say waiting period was reduced.

We thank the reviewer for this suggestion. On line 291-292 we now that that "the mandatory waiting period between the consultation and abortion was reduced from 24 to two hours."

STATISTICAL EDITOR'S COMMENTS:

1. lines 42-52: Although the primary hypothesis of the study (lines 106-108) was to examine the number of 2nd semester abortions before and after HB 2, suggest contrasting in Results section that although the number of abortions in Texas decreased by 11,728 (18%), the number of second trimester abortions increased by 1537 (25%), then go into more detail re: associations with those changes.

We believe that the percentage of women obtaining abortions ≥12 weeks of gestation before and after HB 2 is clinically important and this information would be lost by relying on the difference in the number of abortions. Therefore, we have included our original statements in the abstract of this submission. However, we have included the percent increase in the number of second-trimester abortions in the first paragraph of the Discussion (line 271).

2. lines 83-84: During the two time epochs, if there were facilities that opened or closed during the year, how was the #facilities/250,000 women then calculated?

On lines 138-141, we explain that "we re-calculated the relative size of the network in a region at each time point that a facility closed (or re-opened). By linking a woman's county of residence to the health service region, we determined the size of the facility network in the area on the date of her abortion."

3. lines 133-134: How was these strata chosen? Why not above or below the median or some other criteria?

We wanted to compare the least access areas with places where services were somewhat more robust, which we would not be able to do by choosing the median as a cutpoint. The categories we used were aligned with a visual inspection of a LOWESS plot and distribution of observations in both the pre- and post-policy periods. We have revised this section of the methods (lines 141-143) to include more details about our analytic choices.

4. lines 301-312: Another limitation, outside the scope of these data, is the extent to which women might use out of Texas facilities for abortion services. Also, is internet consultation for medication abortion allowed in Texas and how might that have affected the results?

Based on aggregate vital statistics reports for calendar year, the number of Texas residents who obtained abortions out of state increased between 2012 and 2014, as we note in our prior publication (Grossman et al. 2017; *JAMA* 317(4): 437-439). However, the location where women had their abortion was not included in the individual-level data provided by the state

(see line 85). Therefore, we were not able to determine the percentage that traveled out of state and distance traveled. We note this as a limitation on lines 315-317.

Telemedicine for the provision of medication abortion in Texas was made difficult by HB 15, which was passed in 2011 and required a pre-abortion ultrasound by the same physician who provides the abortion. Telemedicine for abortion care was formally banned by SB 1107, passed in 2017.

5. Table 3: If the OR for obtaining an abortion at ≥ 12 wks gestation were related to distance to nearest facility, then why is there only a statistical relationship with distance 50-99 miles and not ≥ 100 miles? The Authors cite the shorter mandatory wait period, but were the number of women in such regions (≥ 100 miles) fewer than in the other distance strata?

On lines 290-292 of the revised submission, we attribute our finding that there was not a linear trend between increasing distance and second-trimester abortion to the fact that the mandatory waiting period was reduced from 24 to 2 hours for women living ≥100 miles from a facility, enabling these women to make fewer visits. As shown in the revised Table 1, the number of women in this category was similar to the number in the 50-99-mile category.

ASSOC EDITOR-GYN

1 - The readership will not necessarily be familiar with 'Texas House Bill 2' and even though it is fully explained within the text, the Title and Abstract should be revised to reflect a more general tone - such as '...after implementation of a restrictive state law' or something that would capture the essence of the issue being explored. The point to made seems to be that any state (or country) implementing a similar law could anticipate similar findings and that this is not necessarily unique to just Texas.

We have revised the title according to the Associate Editor's suggestion and replaced other mentions of "HB 2" in the abstract with "the law" so the context has a more general tone.

2 - The Stat Editor comment above about lines 83-84 needs to be expanded: Line 49 is oddly phrased by stating '...among women in regions with <1 open facility/250K repro-aged women versus >1.5 facilities..' - how did the authors arrive at this as a measurement variable and how to make it more readily applicable to the readership.

As noted in our responses to Reviewer 2 and the Statistical Editor, there is no definition or standard for optimal network size for abortion facilities. Therefore, we based our categorization on a visual inspection of a LOWESS plot and distribution of observations in both the pre- and post-policy periods. We have revised the methods (lines 141-143) to include more details about our analytic choices.

We have revised the sentence on lines 48-52 of the abstract results to read, "Women living 50-99 miles from the nearest facility (versus <10 miles) had higher odds of second-trimester abortion (OR: 1.24; 95% CI: 1.11-1.39), as did women in regions with <1 facility per 250,000 reproductive-aged women compared with women in areas that had ≥1.5 facilities (OR: 1.57; 95% CI: 1.41-1.75)."

Daniel Mosier

From: White, Kari L [redacted]
Sent: Thursday, January 17, 2019 4:43 PM
To: Daniel Mosier
Subject: RE: Manuscript Revisions: ONG-18-1938R1

Dear Mr. Mosier,

Please see my responses to your queries below. If you need me to accept the edits and make the changes in the manuscript, please let me know.

Sincerely,

Kari

Kari White, PhD MPH
Health Care Organization & Policy
University of Alabama at Birmingham
[redacted]

From: Daniel Mosier <dmosier@greenjournal.org>
Sent: Wednesday, January 16, 2019 1:41 PM
To: White, Kari L [redacted]
Subject: Manuscript Revisions: ONG-18-1938R1

Dear Dr. White,

Thank you for submitting your revised manuscript. It has been reviewed by the editor, and there are a few issues that must be addressed before we can consider your manuscript further:

1. Please note the minor edits and deletions throughout. Please let us know if you disagree with any of these changes. I agree with all the edits made.
2. LINE 16: Dr. Grossman will need to complete our electronic Copyright Transfer Agreement, which was sent to them through Editorial Manager. Dr. Grossman informed me yesterday that he has completed the electronic Copyright Transfer Agreement.
3. LINE 26: Please add the dates of the meeting. The dates of the North American Forum on Family Planning were October 14-16, 2017.

Please let me know if you have any questions. Your prompt response to these queries will be appreciated; please respond no later than COB on **Friday, January 18th.**

Sincerely,

-Daniel Mosier

Daniel Mosier
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Web: http://www.greenjournal.org

From: [redacted]
To: Stephanie Casway
Subject: RE: O&G Figure Revision: 18-1938
Date: Friday, January 11, 2019 4:13:00 PM

Hi Stephanie,

This looks good. Thanks so much for your help with this.

Have a great weekend.

Kari

From: Stephanie Casway <SCasway@greenjournal.org>
Sent: Friday, January 11, 2019 12:49 PM
To: White, Kari L [redacted]
Subject: RE: O&G Figure Revision: 18-1938

Hi Kari,

Please see attached. I think this is about as close as I can get them without having different file types. Please let me know if this is okay. Thanks!

From: White, Kari L [redacted]
Sent: Friday, January 11, 2019 12:13 PM
To: Stephanie Casway <SCasway@greenjournal.org>
Subject: Re: O&G Figure Revision: 18-1938

Thanks for sending this, Stephanie. Would it be possible to put the 3 symbols for Fort Worth a little closer together – like those for Dallas?

Kari

From: Stephanie Casway <SCasway@greenjournal.org>
Sent: Friday, January 11, 2019 7:38 AM
To: White, Kari L
Subject: RE: O&G Figure Revision: 18-1938

Hi Kari,

Not a problem. See attached and let me know what you think.

Thanks!

From: White, Kari L [redacted]
Sent: Thursday, January 10, 2019 1:36 PM
To: Stephanie Casway <SCasway@greenjournal.org>
Subject: RE: O&G Figure Revision: 18-1938

Hi Stephanie,

Thanks so much for this. Would it be possible to cluster the symbols in Ft Worth a little more? Maybe tuck the yellow triangle below and between the orange triangle and red square?

Kari

From: Stephanie Casway <SCasway@greenjournal.org>
Sent: Thursday, January 10, 2019 6:56 AM
To: White, Kari L [redacted]
Subject: RE: O&G Figure Revision: 18-1938

Good Morning Kari,

I was able to make the edit in house, please let me know if the version looks okay. Thanks so much!

From: White, Kari L [redacted]
Sent: Wednesday, January 9, 2019 6:47 PM
To: Stephanie Casway <SCasway@greenjournal.org>
Subject: RE: O&G Figure Revision: 18-1938

Dear Ms Casway,

Thank you for sending along the figures for review.

Figures 1 and 3 do not need any changes.

I did notice an error in Figure 2. In Ft Worth, there should be 1 red square with a "1," 1 yellow triangle with a "1" and 1 orange triangle with a "1." Is that a change you can make or do we

need to send a revised figure to you?

Sincerely,

Kari

From: Stephanie Casway <SCasway@greenjournal.org>
Sent: Tuesday, January 8, 2019 11:40 AM
To: White, Kari L [redacted]
Subject: O&G Figure Revision: 18-1938

Good Afternoon Dr. White,

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.

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, 1/10. Thank you for your help.

Best wishes,

Stephanie Casway, MA
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