OBSTETRICS & GYNECOLOGY

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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)*

**The corresponding author has opted to make this information publicly available.*

Personal or nonessential information may be redacted at the editor's discretion.

Questions about these materials may be directed to the *Obstetrics & Gynecology* editorial office: obgyn@greenjournal.org.

Date: Aug 06, 2021
To: "Brianna M Magnusson" [redacted]
From: "The Green Journal" em@greenjournal.org
Subject: Your Submission ONG-21-1419

RE: Manuscript Number ONG-21-1419

Accessibility of pharmacist-prescribed contraceptives in Utah.

Dear Dr. Magnusson:

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).

Please be sure to address the Editor comments (see "EDITOR COMMENTS" below) in your point-by-point response.

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 Aug 27, 2021, we will assume you wish to withdraw the manuscript from further consideration.

REVIEWER COMMENTS:

Reviewer #1:

This is a secret shopper study of pharmacies in Utah that highlights disparities in access to pharmacist-prescribed contraception. I appreciate the authors' focus on marginalized groups and hope they also plan to address the disparities discovered in this important work.

Introduction:
1. page 5, lines 69-89: The authors build a strong case for the importance of their work in the first three paragraphs of the introduction, but the transition from the third paragraph of the introduction to "Utah Demographic Information" is abrupt. Perhaps they could better continue their momentum and maintain reader interest by moving the Study Aims ahead of Utah Demographic Information.
2. Page 5, lines 84-85: Is there a reference you can provide for the self-assessment to allow readers to review it? Can you elaborate on what "pharmacy monitoring" entails, e.g. whether that monitoring is consistent with the CDC Selected Practice Recommendations?

Methods
3. Page 6, line 103: Is there a standard training or other valid standards for a secret-shopper study that you used and can reference here?
4. Page 7, line 116: Appendix A is not available for my review. Other readers would also likely want to see the script used.
5. Page 7, line 123: Shapefile is not a familiar word for me, and perhaps it will be unfamiliar for other readers as well. Could you please define it?
6. Page 7, line 126-127: A figure containing a flowchart of pharmacy types might be helpful here. If 15% of non-enrolled pharmacies was 50, perhaps there are about 333 pharmacies from which you chose 50. Of the 173 enrolled pharmacies, you go on to say (page 8, lines 159-163) that you contacted 163 and could not reach 11 (163+11=174; is there a typo here?). If the enrolled and participating pharmacies (n=127) represent 26.7% of class A retail pharmacies, that means there are about 470 class A retail pharmacies. I'm thinking of a flowchart with boxes:
a. Box 1: 470 class A retail pharmacies.
b. Box 2: enrolled pharmacies (n=173) Box 3: non-enrolled pharmacies (n~297-333 depending on my extrapolations from your report)
c. Box 2a: contactable, enrolled pharmacies (n=163) Box 3a: randomly selected non-enrolled pharmacies (n=50)
d. Box 2b: contactable, enrolled, participating pharmacies (n=127) Box 3b: contactable, non-enrolled pharmacies

(n=47)
e. Boxes 2c-f: could split out these 127 pharmacies into chain vs independent, rural vs non-rural
7. Page 8, line 143: Could you please define raster map? Thank you for defining kernel density, another new term for me.
8. Page 8, lines 153-154: Is "risk" the best way to describe the groups you are discussing here? In addition to being non-specific (at risk for what?), "high-risk" and "at-risk" could be stigmatizing. "At-risk" eventually is defined in the caption for Figure 6 on page 16 by the demographic factors of minority race/ethnicity, insurance status, and income relation to poverty line. Perhaps these could be listed explicitly here on page 8 and the group described as marginalized or another term that is without negative connotations?

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10. Page 9, lines 170-176: Is there a rural-urban discrepancy to report here with respect to fees?
11. Page 14, Figure 3: Could these figures be labeled with separate figure titles (e.g. 3a, 3b, 3c, 3d) or have the keys be a larger font? It's pretty hard to read the key font.

Discussion
12. Page 17, lines 283-285: The different participation rates among states with these programs are very interesting. On a brief review of references 18 and 25, it looks as though there was not a difference in pharmacist-prescribed contraception between rural and urban areas in California, Oregon, or New Mexico. Do you have ideas about why you did find a difference in Utah?
13. Page 19, lines 331-333: Patient-centered research of people using contraception (not all of whom identify as women, which may be a change you'd like to make to this sentence) is a great next step. What about next steps to decrease the inequity you uncovered in this work?

Reviewer #2:

This is a well designed, performed and reported study using a range of appropriate methods to evaluate the status of pharmacy available contraception after implementation in Utah. All of my suggestions are aimed at making this more useful and impactful for clinically active ObGyns, the main readers of this journal.
1. I would strongly suggest that all the maps be place in the appendix; they just aren't useful for almost anybody reading the manuscript and the text is well enough written that only the deeply interested will need to go to the appendix to examine them. This would require small changes in the text.
2. The only area of the text that could use clarification is the description of figure 5, line 255ff. This is important information, but i really had trouble understanding the density graphs and the accompanying description. I'm sure you can clarify these findings.
3. I think the discussion is outstandingly good. The suggestion to train pharmacy technicians is really useful. A brief statement of strengths and weaknesses of this study would be useful.

Reviewer #3:

The authors present an interesting work on the availability of contraception in Utah as given by pharmacists. While I appreciate the work here, I think globally this study is limited in its scope due to it reflecting the practice patterns in one state and is thus not broadly applicable. Specific comments:
1) The introduction is not written well and much of the demographic info should be moved to methods or supplemental data; this could also be summarized in a less verbose manner to set the stage for the work.
2) Line 102-105- what was the training for this? were the questions standardized across the board?
3) The figures in the results section are integrated in a confusing way--> I appreciate what you are trying to show but the data needs further explanation because as written it is difficult to associate the data with the figures.
4) The discussion is also written in a disjointed manner; please condense into a way the reviews your findings and addresses the next steps.

STATISTICS EDITOR COMMENTS:

Lines 177-180: Since the denominator = 36, the %s based on that subset should all be rounded to nearest integer %, not cited to 0.1% precision.

lines 182-187: Similar issue for this section, where the total N = 50. Should round the %s.

Suggest Fig 5 will not be understood by many readers and should instead provide information re: distance to participating pharmacies for various regions and groups.

Table 1: Same issue re: rounding of %s to nearest integer value.

EDITOR COMMENTS:

Please add some data on rural/urban in Abstract Results as it is highlighted in the Conclusions.

EDITORIAL OFFICE COMMENTS:

1. The Editors of Obstetrics & Gynecology have increased 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. If you opt out of including your response, only the revision letter will be posted. Please reply to this letter with one of two responses:

A. OPT-IN: Yes, please publish my point-by-point response letter.
B. OPT-OUT: No, please do not publish my point-by-point response letter.

2. When you submit your revised manuscript, please make the following edits to ensure your submission contains the required information that was previously omitted for the initial double-blind peer review:
* Include your title page information in the main manuscript file. The title page should appear as the first page of the document. Add any previously omitted Acknowledgements (ie, meeting presentations, preprint DOIs, assistance from non-byline authors).
* Funding information (ie, grant numbers or industry support statements) should be disclosed on the title page and in the body text. For industry-sponsored studies, the Role of the Funding Source section should be included in the body text of the manuscript.
* Include clinical trial registration numbers, PROSPERO registration numbers, or URLs at the end of the abstract (if applicable).
* Name the IRB or Ethics Committee institution in the Methods section (if applicable).
* Add any information about the specific location of the study (ie, city, state, or country), if necessary for context.

3. Obstetrics & Gynecology uses an "electronic Copyright Transfer Agreement" (eCTA), which must be completed by all authors. When you uploaded your manuscript, each co-author received an email with the subject, "Please verify your authorship for a submission to Obstetrics & Gynecology." Please check with your coauthors to confirm that they received and completed this form, and that the disclosures listed in their eCTA are included on the manuscript's title page.

4. For studies that report on the topic of race or include it as a variable, authors must provide an explanation in the manuscript of who classified individuals' race, ethnicity, or both, the classifications used, and whether the options were defined by the investigator or the participant. In addition, the reasons that race/ethnicity were assessed in the study also should be described (eg, in the Methods section and/or in table footnotes). Race/ethnicity must have been collected in a formal or validated way. If it was not, it should be omitted. Authors must enumerate all missing data regarding race and ethnicity as in some cases, missing data may comprise a high enough proportion that it compromises statistical precision and bias of analyses by race.

Use "Black" and "White" (capitalized) when used to refer to racial categories. The nonspecific category of "Other" is a convenience grouping/label that should be avoided, unless it was a prespecified formal category in a database or research instrument. If you use "Other" in your study, please add detail to the manuscript to describe which patients were included in that category.

5. Figures 1-6: Please upload as high res figure files on Editorial Manager (do not paste into Word). Please confirm that they figures are original to the manuscript and no map software needs to be credited.

Tables, figures, and supplemental digital content should be original. The use of borrowed material (eg, lengthy direct quotations, tables, figures, or videos) is discouraged. If the material is essential, written permission of the copyright holder must be obtained.

Both print and electronic (online) rights must be obtained from the holder of the copyright (often the publisher, not the author), and credit to the original source must be included in your manuscript. Many publishers have online systems for submitting permissions requests; please consult the publisher directly for more information. Permission is also required for material that has been adapted or modified from another source.

Increasingly, publishers will not grant permission for modification of their material. Creative Commons licenses and open access have also made obtaining permissions more challenging. In order to avoid publication delays, we strongly encourage authors to link or reference to the material they want to highlight instead of trying to get permission to reprint it. For example, "see Table 1 in Smith et al" (insert reference number) or "see Table 1 in the document available at [insert URL]." For articles that the journal invites, such as the Clinical Expert Series, the journal staff does not seek permission for modifications of material — the material will be reprinted in its original form.

When you submit your revised manuscript, please upload 1) the permissions license and 2) a copy of the original source from which the material was reprinted, adapted, or modified (eg, scan of book page(s), PDF of journal article, etc.).

6. 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), observational studies using ICD-10 data (ie, RECORD), meta-analyses and systematic reviews of randomized controlled trials (ie, PRISMA), harms in systematic reviews (ie, PRISMA for harms), studies of diagnostic accuracy (ie, STARD), meta-analyses and systematic reviews of observational studies (ie, MOOSE), economic evaluations of health interventions (ie, CHEERS), quality improvement in health care studies (ie, SQUIRE 2.0), and studies reporting results of Internet e-surveys (CHERRIES). Include the appropriate checklist for your manuscript type upon submission. Please write or insert the page numbers where each item appears in the margin of the checklist. Further information and links to the checklists are available at http://ong.editorialmanager.com. In your cover letter, be sure to indicate that you have followed the CONSORT, MOOSE, PRISMA, PRISMA for harms, STARD, STROBE, RECORD, CHEERS, SQUIRE 2.0, or CHERRIES guidelines, as appropriate.

7. Standard obstetric and gynecology data definitions have been developed through the reVITALize initiative, which was convened by the American College of Obstetricians and Gynecologists and the members of the Women's Health Registry Alliance. Obstetrics & Gynecology has adopted the use of the reVITALize definitions. Please access the obstetric data definitions at https://www.acog.org/practice-management/health-it-and-clinical-informatics/revitalize-obstetrics-data-definitions and the gynecology data definitions at https://www.acog.org/practice-management/health-it-and-clinical-

informatics/revitalize-gynecology-data-definitions. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter.

8. 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 5,500 words. Stated word limits include the title page, précis, abstract, text, tables, boxes, and figure legends, but exclude references.

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

* All financial support of the study must be acknowledged.
* Any and all manuscript preparation assistance, including but not limited to topic development, data collection, analysis, writing, or editorial assistance, must be disclosed in the acknowledgments. Such acknowledgments must identify the entities that provided and paid for this assistance, whether directly or indirectly.
* All persons who contributed to the work reported in the manuscript, but not sufficiently to be authors, must be acknowledged. Written permission must be obtained from all individuals named in the acknowledgments, as readers may infer their endorsement of the data and conclusions. Please note that your response in the journal's electronic author form verifies that permission has been obtained from all named persons.
* If all or part of the paper was presented at the Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists or at any other organizational meeting, that presentation should be noted (include the exact dates and location of the meeting).
* If your manuscript was uploaded to a preprint server prior to submitting your manuscript to Obstetrics & Gynecology, add the following statement to your title page: "Before submission to Obstetrics & Gynecology, this article was posted to a preprint server at: [URL]."

8. 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 limit for Original Research articles is 300 words. Please provide a word count.

9. 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.

10. 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.

11. ACOG avoids using "provider." Please replace "provider" throughout your paper with either a specific term that defines the group to which are referring (for example, "physicians," "nurses," etc.), or use "health care professional" if a specific term is not applicable.

12. In your Abstract, manuscript Results sections, and tables, the preferred citation should be in terms of an effect size,

such as odds ratio or relative risk or the mean difference of a variable between two groups, expressed with appropriate confidence intervals. When such syntax is used, the P value has only secondary importance and often can be omitted or noted as footnotes in a Table format. Putting the results in the form of an effect size makes the result of the statistical test more clinically relevant and gives better context than citing P values alone.

If appropriate, please include number needed to treat for benefits (NNTb) or harm (NNTh). When comparing two procedures, please express the outcome of the comparison in U.S. dollar amounts.

Please standardize the presentation of your data throughout the manuscript submission. For P values, do not exceed three decimal places (for example, "P = .001"). For percentages, do not exceed one decimal place (for example, 11.1%").

13. Your manuscript contains a priority claim. We discourage claims of first reports since they are often difficult to prove. How do you know this is the first report? If this is based on a systematic search of the literature, that search should be described in the text (search engine, search terms, date range of search, and languages encompassed by the search). If it is not based on a systematic search but only on your level of awareness, it is not a claim we permit.

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. Please review examples of our current reference style at http://ong.editorialmanager.com (click on the Home button in the Menu bar and then "Reference Formatting Instructions" document under "Files and Resources). Include the digital object identifier (DOI) with any journal article references and an accessed date with website references. Unpublished data, in-press items, personal communications, letters to the editor, theses, package inserts, submissions, meeting presentations, and abstracts may be included in the text but not in the reference list.

In addition, the American College of Obstetricians and Gynecologists' (ACOG) documents are frequently updated. These documents may be withdrawn and replaced with newer, revised versions. If you cite ACOG documents in your manuscript, be sure the references you are citing are still current and available. Check the Clinical Guidance page at https://www.acog.org/clinical (click on "Clinical Guidance" at the top). If the reference is still available on the site and isn't listed as "Withdrawn," it's still a current document.

If the reference you are citing has been updated and replaced by a newer version, please ensure that the new version supports whatever statement you are making in your manuscript and then update your reference list accordingly (exceptions could include manuscripts that address items of historical interest). If the reference you are citing has been withdrawn with no clear replacement, please contact the editorial office for assistance (obgyn@greenjournal.org). In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript.

16. Figures 1-6: Please upload as high res figure files on Editorial Manager (do not paste into Word). Please confirm that they figures are original to the manuscript and no map software needs to be credited.

When you submit your revision, art saved in a digital format should accompany it. If your figure was created in Microsoft Word, Microsoft Excel, or Microsoft PowerPoint formats, please submit your original source file. Image files should not be copied and pasted into Microsoft Word or Microsoft PowerPoint.

When you submit your revision, art saved in a digital format should accompany it. Please upload each figure as a separate file to Editorial Manager (do not embed the figure in your manuscript file).

If the figures were created using a statistical program (eg, STATA, SPSS, SAS), please submit PDF or EPS files generated directly from the statistical program.

Figures should be saved as high-resolution TIFF files. The minimum requirements for resolution are 300 dpi for color or black and white photographs, and 600 dpi for images containing a photograph with text labeling or thin lines.

Art that is low resolution, digitized, adapted from slides, or downloaded from the Internet may not reproduce.

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If you choose open access, you will receive an Open Access Publication Charge letter from the Journal's Publisher, Wolters Kluwer, and instructions on how to submit any open access charges. The email will be from publicationservices@copyright.com with the subject line, "Please Submit Your Open Access Article Publication Charge(s)." Please complete payment of the Open Access charges within 48 hours of receipt.

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If you choose to revise your manuscript, please submit your revision through Editorial Manager at http://ong.editorialmanager.com. Your manuscript should be uploaded as a Microsoft Word document. Your revision's cover letter should include the following:

* A confirmation that you have read the Instructions for Authors (http://edmgr.ovid.com/ong/accounts/authors.pdf), and
* A point-by-point response to each of the received comments in this letter. Do not omit your responses to the Editorial Office or Editors' comments.

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

Again, your paper will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by Aug 27, 2021, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,

John O. Schorge, MD
Associate Editor, Gynecology

2020 IMPACT FACTOR: 7.661
2020 IMPACT FACTOR RANKING: 3rd out of 83 ob/gyn journals

_____

Dwight J. Rouse, MD, MSPH
Editor-in-Chief
Obstetrics & Gynecology Journal

To Dr. Rouse, the Editorial Board, and Reviewers,

Thank you for the opportunity to revise our manuscript entitled *Accessibility of pharmacist-prescribed contraceptives in Utah.* We appreciate the time and thoughtful reviews that were provided and the opportunity to respond to that review.

We appreciate the journal's commitment to increased transparency in peer-review and OPT-IN to having our point-by-point response letter published. The point-by-point response follows this letter.

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

We appreciate your continued consideration of this manuscript.

Sincerely,

Brianna M. Magnusson, Ph.D., MPH
Associate Professor, Department of Public Health
Brigham Young University
[redacted]

Reviewers,
We greatly appreciate the time required to provide the thoughtful reviews you have provided. Below we present our point-by-point response. Thank you for your continued review of this work and your commitment to providing quality peer-review. Additions or changes in the text are bolded. Removed text is indicated with a strikethrough.

Reviewer #1:

This is a secret shopper study of pharmacies in Utah that highlights disparities in access to pharmacist-prescribed contraception. I appreciate the authors' focus on marginalized groups and hope they also plan to address the disparities discovered in this important work.

Thank you, sincerely, for this very helpful review. We greatly appreciate the time invested in improving this manuscript.

Introduction:
Page 5, lines 69-89: The authors build a strong case for the importance of their work in the first three paragraphs of the introduction, but the transition from the third paragraph of the introduction to "Utah Demographic Information" is abrupt. Perhaps they could better continue their momentum and maintain reader interest by moving the Study Aims ahead of Utah Demographic Information.

Thank you for this suggestion. We have moved Study Aims before the Utah specific information.

Page 5, lines 84-85: Is there a reference you can provide for the self-assessment to allow readers to review it?

The self-assessment tool approved by the Utah Department of Health for use under this standing order has been uploaded as an Appendix.

Can you elaborate on what "pharmacy monitoring" entails, e.g. whether that monitoring is consistent with the CDC Selected Practice Recommendations?

We have modified this section to explain that pharmacy monitoring is an evaluation of experienced side effects and patient concerns at regular intervals. Details of the intervals are provide in the new paragraph which is provided below. The self-assessment complies recommendations for contraceptive initiation detailed in the US Selected Practice Recommendations for Contraceptive Use. We have stated this in the revised manuscript. The guidance from the practice guidelines does encourage providers to ask about side effects and concerns after initiation, but does not appear to have fixed intervals for these checks, whereas the Utah standing order has specific required intervals.

Following the initial 30-day prescription, the pharmacist is minimally required to evaluate side effects and patient concerns at 3-months, 12-months and then annually for 4 years for as long as the patient desires to continue the prescription. Prescriptions continuing longer than 36 months require evidence that the patient has been seen by a primary care or women's health provider within the last 2 years. [17]

Methods

Page 6, line 103: Is there a standard training or other valid standards for a secret-shopper study that you used and can reference here?

I am not aware of a standardized protocol for a secret shopper research methodology. I have reviewed recent publications utilizing a secret shopper methodology and did not identify any cited methodology in those papers either. The three "shoppers" were trained to open the conversation in a similar fashion and to follow a natural conversation asking the questions that appear in the script if they responding staff member did not volunteer that information.

Page 7, line 116: Appendix A is not available for my review. Other readers would also likely want to see the script used.

My apologies. We have uploaded this document. Due to other revisions, this is now available marked as Appendix A.

Page 7, line 123: Shapefile is not a familiar word for me, and perhaps it will be unfamiliar for other readers as well. Could you please define it?

A shapefile is a set of data formatted so that geographic layers can be read into a geographic information system. It contains all the information about map projections, boundaries, features, and data associated with those features.

We have added this definition to the manuscript.

Page 7, line 126-127: A figure containing a flowchart of pharmacy types might be helpful here. If 15% of non-enrolled pharmacies was 50, perhaps there are about 333 pharmacies from which you chose 50. Of the 173 enrolled pharmacies, you go on to say (page 8, lines 159-163) that you contacted 163 and could not reach 11 (163+11=174; is there a typo here?). If the enrolled and participating pharmacies (n=127) represent 26.7% of class A retail pharmacies, that means there are about 470 class A retail pharmacies. I'm thinking of a flowchart with boxes:

a. Box 1: 470 class A retail pharmacies.

b. Box 2: enrolled pharmacies (n=173) Box 3: non-enrolled pharmacies (n~297-333 depending on my extrapolations from your report)

c. Box 2a: contactable, enrolled pharmacies (n=163) Box 3a: randomly selected non-enrolled pharmacies (n=50)

d. Box 2b: contactable, enrolled, participating pharmacies (n=127) Box 3b: contactable, non-enrolled pharmacies (n=47)

e. Boxes 2c-f: could split out these 127 pharmacies into chain vs independent, rural vs non-rural

Thank you for this helpful suggestion. We have added a flowchart identified as Figure 1.

Page 8, line 143: Could you please define raster map? Thank you for defining kernel density, another new term for me.

Thank you for the recommendation to add these definitions. I'm sure others will find them helpful as well.

A raster map stores data according to pixels in a map, rather than within a polygon file such as a political boundary. Raster maps are commonly used for display of maps that change continually across space, such as elevation or temperature.

Page 8, lines 153-154: Is "risk" the best way to describe the groups you are discussing here? In addition to being non-specific (at risk for what?), "high-risk" and "at-risk" could be stigmatizing. "At-risk" eventually is defined in the caption for Figure 6 on page 16 by the demographic factors of minority race/ethnicity, insurance status, and income relation to poverty line. Perhaps these could be listed explicitly here on page 8 and the group described as marginalized or another term that is without negative connotations?

Thank you for being thoughtful about the language used in this paper. Language matters! We appreciate the chance to change ours for the better. We have altered this section to read:

"…identifying census tracts with limited access to participating pharmacies and high proportions of marginalized persons who are most likely to experience difficulty accessing contraceptives. Specifically those living under the FPL, females without health insurance, and racial and ethnic minorities."

Results

Pages 8-9, lines 159-164): as in point 6 above, a flowchart figure might be a great way to present these data.

A flowchart has been added as Figure 1.

Page 9, lines 170-176: Is there a rural-urban discrepancy to report here with respect to fees?

There was not a rural/non-rural discrepancy in fees. We've added this information to the manuscript.

11. Page 14, Figure 3: Could these figures be labeled with separate figure titles (e.g. 3a, 3b, 3c, 3d) or have the keys be a larger font? It's pretty hard to read the key font.

We have moved most of the maps to the supplemental figures as recommended by reviewer #2. This will allow for the images to be displayed larger which will assist the reader in viewing the legends and geographical markers.

Discussion

Page 17, lines 283-285: The different participation rates among states with these programs are very interesting. On a brief review of references 18 and 25, it looks as though there was not a difference in pharmacist-prescribed contraception between rural and urban areas in California, Oregon, or New Mexico. Do you have ideas about why you did find a difference in Utah?

The most likely reason is that the study methodologies differed. The 2018 California study by Batra et al. found very low participation overall (5.1%) in a random sample of all pharmacies. Although they didn't observe a rural/urban difference, the participation was so low as to make

this difficult to detect in the event it existed. The Rodriguez New Mexico and Oregon study randomly sampled pharmacies within urban/rural strata and found a similar proportion of urban pharmacies and rural pharmacies participated in the pharmacist-prescribed contraceptive program. Conversely, our approach examines the accessibility of participating pharmacies to females living in rural areas using pharmacy density. Thus rather than determining if rural and urban pharmacies were equally likely to participate, we asked the question: Do females living in rural areas have access to the program through a participating pharmacy that is geographically near them? This approach is beneficial in that 30% participation of retail pharmacies in a pharmacy dense area like Salt Lake City may still provide everyone who lives there with reasonable driving distance access to a participating pharmacy, however the much more spread our pharmacies in a rural area having only 30% participation may mean that entire towns and counties lack a participating pharmacy.

Page 19, lines 331-333: Patient-centered research of people using contraception (not all of whom identify as women, which may be a change you'd like to make to this sentence) is a great next step. What about next steps to decrease the inequity you uncovered in this work?

Thank you for this suggestion. We have changed the language to females throughout. In most cases specifying females of reproductive age.

Reviewer #2:

This is a well designed, performed and reported study using a range of appropriate methods to evaluate the status of pharmacy available contraception after implementation in Utah. All of my suggestions are aimed at making this more useful and impactful for clinically active ObGyns, the main readers of this journal.

Thank you for your careful and helpful review. The attention to detail is greatly appreciated.

I would strongly suggest that all the maps be place in the appendix; they just aren't useful for almost anybody reading the manuscript and the text is well enough written that only the deeply interested will need to go to the appendix to examine them. This would require small changes in the text.

We have moved most of the maps to the appendix.

The only area of the text that could use clarification is the description of figure 5, line 255ff. This is important information, but i really had trouble understanding the density graphs and the accompanying description. I'm sure you can clarify these findings.

We agree this information is important. We have expanded this section of the results to assist the reader in understanding how to read the graphs (if desired) and what they tell us about access to pharmacy prescribed contraceptives.

I think the discussion is outstandingly good. The suggestion to train pharmacy technicians is really useful. A brief statement of strengths and weaknesses of this study would be useful.

We have revised the discussion to more explicitly state the strengths and weaknesses.

Reviewer #3:

The authors present an interesting work on the availability of contraception in Utah as given by pharmacists. While I appreciate the work here, I think globally this study is limited in its scope due to it reflecting the practice patterns in one state and is thus not broadly applicable. Specific comments: 1) The introduction is not written well and much of the demographic info should be moved to methods or supplemental data; this could also be summarized in a less verbose manner to set the stage for the work.

In response to this comment and that of reviewer 1 we moved the Utah specific information to follow the study aims. We do feel it is important to include some brief information about Utah as we cannot assume that the majority of readers are well acquainted with the Utah population.

2) Line 102-105- what was the training for this? were the questions standardized across the board?

I as the lead author and faculty mentor for the students on this paper, trained the research assistants in the secret shopper methodology. There is not a specific, standardized training for a secret shopper methodology. The goal of this methodology is for the data collector to pose as the customer. The details of who the customer might be varies dramatically based on the purpose of the data collection. The questions that the data collectors asked of the pharmacists/techs were standardized. A copy of the script is included in Appendix B.

3) The figures in the results section are integrated in a confusing way--> I appreciate what you are trying to show but the data needs further explanation because as written it is difficult to associate the data with the figures.

We have added additional text to assist the reader in interpreting the graphs. We have also moved most of the maps to the appendix.

4) The discussion is also written in a disjointed manner; please condense into a way the reviews your findings and addresses the next steps.

We have expanded the section on next steps.

STATISTICS EDITOR COMMENTS:

Lines 177-180: Since the denominator = 36, the %s based on that subset should all be rounded to nearest integer %, not cited to 0.1% precision.

All percentages throughout the paper have been rounded to the nearest integer.

lines 182-187: Similar issue for this section, where the total N = 50. Should round the %s.

All percentages throughout the paper have been rounded to the nearest integer.

Suggest Fig 5 will not be understood by many readers and should instead provide information re: distance to participating pharmacies for various regions and groups.

We believe that the spatial analysis in Figure 5 is important for understanding access to the pharmacy contraception program. We have added additional text to better explain how to read this graph and what it tells us.

Table 1: Same issue re: rounding of %s to nearest integer value.

All percentages throughout the paper have been rounded to the nearest integer.

EDITOR COMMENTS:

Please add some data on rural/urban in Abstract Results as it is highlighted in the Conclusions.

We added a statement about the rural/urban results in the abstract.

EDITORIAL OFFICE COMMENTS:

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A. OPT-IN: Yes, please publish my point-by-point response letter.
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Our preference to "Opt-In" has been included in the cover letter for this revision.

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7. Standard obstetric and gynecology data definitions have been developed through the reVITALize initiative, which was convened by the American College of Obstetricians and Gynecologists and the members of the Women's Health Registry Alliance. Obstetrics & Gynecology has adopted the use of the reVITALize definitions. Please access the obstetric data definitions at https://www.acog.org/practice-management/health-it-and-clinical-informatics/revitalize-obstetrics-data-definitions and the gynecology data definitions at https://www.acog.org/practice-management/health-it-and-clinical-informatics/revitalize-gynecology-data-definitions. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter. **– Not Applicable**

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