

# 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.*

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Questions about these materials may be directed to the *Obstetrics & Gynecology* editorial office:

[obgyn@greenjournal.org](mailto:obgyn@greenjournal.org).

**Date:** Dec 17, 2021  
**To:** "Maria Isabel Rodriguez" [REDACTED]  
**From:** "The Green Journal" em@greenjournal.org  
**Subject:** Your Submission ONG-21-2269

RE: Manuscript Number ONG-21-2269

Association of pharmacist prescription of contraception with breaks in coverage

Dear Dr. Rodriguez:

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 Jan 07, 2022, we will assume you wish to withdraw the manuscript from further consideration.

#### EDITOR COMMENT

1. Last paragraph of the Discussion states that pharmacist and physician prescribed contraception continuation rates were comparable. Please modify to align with the Abstract and Results which noted increased continuation for pharmacist supplied OCPs.

#### REVIEWER COMMENTS:

Reviewer #1:

General:

\* This is a retrospective cohort study assessing whether pharmacist prescription of short-acting hormonal contraception is associated with continuation rates or breaks in contraceptive coverage. I think this is a very well-thought out study design and well-written manuscript. The comments I make are small and overall I think that the well-presented data here can have important public health implications and should be shared.

Abstract

\* Line 52: I was a little confused in this sentence and think it should say "breaks in contraceptive coverage." Including the word "contraceptive" will clarify.

Introduction

\* Lines 113-114: Can you elaborate on why the other states don't have a collaborative practice agreement? Does that mean that they have made an even more progressive policy or is there something else of importance here?

Methods

\* Can you elaborate on why the analytic cohort was restricted to those who did not discontinue contraception in the first six months? This could be spelled out more clearly for the reader.

Discussion

\* Lines 223-224: I'm not sure that the evidence that pharmacist prescription is not associated with decreased

continuation rates or breaks in coverage suggests only that contraceptive counseling is similar between pharmacists and clinicians. Doesn't it also indicate the safety of these contraceptive methods? Perhaps that many should be available over-the-counter? It may be worth including more in the discussion about the potential implications of these findings.

\* I think it is worth commenting on the significant difference in N in your population- 99.1% clinicians and 0.9% pharmacists. I'm not sure there is any statistical relevance, but there is at least a point to make in how much more work could be done to include pharmacists in these prescribing practices given your data.

Tables:

\* I find the tables difficult to read, I think because the first column is too wide, so it is hard to associate information in the first column with information in the second. This is particularly true for table 3

Reviewer #2: The authors present a large database study in the state of Oregon from 2016-2018, examining contraceptive continuation among patients who obtain prescriptions from clinicians only vs. pharmacists.

Line 115 - I believe the authors are presenting this as a positive finding (that harm was not caused by allowing pharmacist prescriptions) but it reads more negative—as if the study was looking for a positive association with pharmacist prescription but didn't find it. It makes the transition to the next sentence "we build upon this work..." a little hard to follow in the first read through. Overall, though, the introduction is excellent and nicely introduces the reader to the subject's history and the gap this study aims to fill in the literature.

Line 163 - The methods are easy to follow and succinctly presented. The primary and secondary outcomes are well-defined and appropriate for the stated aims.

Line 185 (and Line 253) - How were covariates rurality, payer, and age chosen? Were these the only relevant ones available in the database? Would the authors ideally have examined others if they were available or are they confident these are sufficient to have a reasonable degree of confidence in their results?

Line 191 - The sample size of over 170,000 is excellent, but with less than 1% of patients receiving any prescription from a pharmacist (and presumably near zero exclusively from a pharmacist), how confident can the authors be in the ORs for their desired outcomes? Was a power calculation performed?

Line 229 - The authors do a nice job fitting their data in with what is already known about contraceptive use based on provider type. The conclusions (that pharmacist prescriptions don't have a negative impact on continuation or gaps) seem appropriate.

Reviewer #3: This is a well written important paper. The authors analyzed a large cohort retrospectively to determine association of pharmacist prescriber types and 12-month contraception rates. This paper will contribute to policy and literature. My only comments are the tables will be easier to read if "%" are removed, and I recommend the table in the Appendix be moved to be in the manuscript.

#### STATISTICAL EDITOR COMMENTS:

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

lines 60-62, 198-200: Should include the actual continuation rates at 12 months for the two cohorts.

Table 1: Need units for age.

Tables 2, 4: Should include crude ORs for contrast with aORs. Should include units for age. Should include a footnote enumerating the variables included as adjusters in the final model.

Table 3: Should include the primary outcome first, then all the various characteristics of discontinuation.

Appendix: Need units for age. Need to specify the stats test used (I presume Chi-square), per lines 175-176.

General: The pharmacist cohort is relatively small vs its referent group. Should corroborate the multivariable regression results with close matching of the pharmacist cohort with a cohort from the referent to confirm or refute the primary outcome.

## 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. All studies should follow the principles set forth in the Helsinki Declaration of 1975, as revised in 2013, and manuscripts should be approved by the necessary authority before submission. Applicable original research studies should be reviewed by an institutional review board (IRB) or ethics committee. This review should be documented in your cover letter as well in the Methods section of the body text, with an explanation if the study was considered exempt. If your research is based on a publicly available data set approved by your IRB for exemption, please provide documentation of this in your cover letter by submitting the URL of the IRB website outlining the exempt data sets or a letter from a representative of the IRB. In addition, insert a sentence in the Methods section stating that the study was approved or exempt from approval. In all cases, the complete name of the IRB should be provided in the manuscript.

5. Please submit a completed STROBE checklist.

6. Standard obstetric and gynecology data definitions have been developed through the reVITALize initiative, which was convened by the American College of Obstetricians and Gynecologists and the members of the Women's Health Registry Alliance. Obstetrics & Gynecology has adopted the use of the reVITALize definitions. Please access the obstetric 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.

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

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

- \* All financial support of the study must be acknowledged.
- \* Any and all manuscript preparation assistance, including but not limited to topic development, data collection, analysis, writing, or editorial assistance, must be disclosed in the acknowledgments. Such acknowledgments must identify the entities that provided and paid for this assistance, whether directly or indirectly.
- \* All persons who contributed to the work reported in the manuscript, but not sufficiently to be authors, must be acknowledged. Written permission must be obtained from all individuals named in the acknowledgments, as readers may infer their endorsement of the data and conclusions. Please note that your response in the journal's electronic author form verifies that permission has been obtained from all named persons.
- \* If all or part of the paper was presented at the Annual Clinical and Scientific Meeting of the American College of

Obstetricians and Gynecologists or at any other organizational meeting, that presentation should be noted (include the exact dates and location of the meeting).

\* 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]."

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In addition, the abstract length should follow journal guidelines. The word limit for Original Research articles is 300 words. Please provide a word count.

10. 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.

11. 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.

12. 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.

13. 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.

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%).

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](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](mailto:obgyn@greenjournal.org)). In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript.

## 16. Figures

Figure 1: The file may be submitted with the revision as-is.

Figure 2: Please add tick marks along the y-axis.

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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](mailto: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 Jan 07, 2022, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,  
Jason Wright, MD  
Editor-in-Chief, Elect

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

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In compliance with data protection regulations, you may request that we remove your personal registration details at any time. (Use the following URL: <https://www.editorialmanager.com/ong/login.asp?a=r>). Please contact the publication office if you have any questions.

**Manuscript Number ONG-21-2269**  
**Reviewer Response**

**Thank you for reviewing our work. We respond below on a point by point basis. Changes made to the text are highlighted in Track Changes, and included below each comment with the relevant line number.**

**EDITOR COMMENT**

1. Last paragraph of the Discussion states that pharmacist and physician prescribed contraception continuation rates were comparable. Please modify to align with the Abstract and Results which noted increased continuation for pharmacist supplied OCPs.

**Thank you, we have revised the text as suggested (Lines 265-267)**

**“Pharmacist prescription of contraception is associated with higher 12 month contraceptive continuation rates and appears comparable with clinic-based care in frequency of breaks in care.”**

**REVIEWER COMMENTS:**

Reviewer #1:

General:

\* This is a retrospective cohort study assessing whether pharmacist prescription of short-acting hormonal contraception is associated with continuation rates or breaks in contraceptive coverage. I think this is a very well-thought out study design and well-written manuscript. The comments I make are small and overall I think that the well-presented data here can have important public health implications and should be shared. **Thank you for reviewing our work; your time and expertise is appreciated. We have incorporated your suggested edits.**

Abstract

\* Line 52: I was a little confused in this sentence and think it should say "breaks in contraceptive coverage." Including the word "contraceptive" will clarify. **We appreciate the suggestion, and have made the clarification.**

Introduction

\* Lines 113-114: Can you elaborate on why the other states don't have a collaborative practice agreement? Does that mean that they have made an even more progressive policy or is there something else of importance here?

**We have added text to clarify that the collaborative practice plan requires a physician's signature and oversight, and that the current approach, passed by states allows pharmacists to prescribe independently. Current legislation goes a step farther by not requiring any physician involvement or oversight.**

**Lines 112-114**

**“Since the implementation of this policy in Oregon, sixteen other states have passed legislation to allow pharmacist prescription of hormonal contraception (without a physician’s oversight in a collaborative practice agreement).”**

#### Methods

\* Can you elaborate on why the analytic cohort was restricted to those who did not discontinue contraception in the first six months? This could be spelled out more clearly for the reader.

**We have added additional detail as suggested. Lines 174-176 “We focused our analysis on this population to obtain a conservative estimate of gaps in coverage by including only individuals who continued with the method for at least six months.”**

#### Discussion

\* Lines 223-224: I'm not sure that the evidence that pharmacist prescription is not associated with decreased continuation rates or breaks in coverage suggests only that contraceptive counseling is similar between pharmacists and clinicians. Doesn't it also indicate the safety of these contraceptive methods? Perhaps that many should be available over-the-counter? It may be worth including more in the discussion about the potential implications of these findings.

**Excellent suggestion, we have elaborated on this point. Lines 231-235**

**“This similarity in contraceptive outcomes may also reflect the acceptability and ease of use of these medications; a clinic visit was not needed to ensure consistent and correct contraceptive use. Our findings have relevance for the movement to bring the contraceptive pill over-the-counter, by supporting a growing body of literature demonstrating that deregulating the pill is both safe, effective, and acceptable to users.<sup>28-32</sup>”**

\* I think it is worth commenting on the significant difference in N in your population- 99.1% clinicians and 0.9% pharmacists. I'm not sure there is any statistical relevance, but there is at least a point to make in how much more work could be done to include pharmacists in these prescribing practices given your data.

**Thank you for raising this point, which the statistical editor did as well (see below comment). To address this issue, we conducted a secondary matched analysis of the pharmacist cohort with a referent clinic based group. The matched analysis confirmed the findings observed in the multivariable regression, and is included in the Appendix.**

**We have also added information to the Discussion (268-270) describing the need for scaling up pharmacist prescription of contraception.**

**“Despite the safety and effectiveness of pharmacist prescription of contraception, we found that only a minority of contraceptive users were obtaining their prescription from a pharmacist.<sup>30</sup> Efforts to scale up pharmacist prescription of contraception are needed to support contraceptive access.”**

#### Tables:

\* I find the tables difficult to read, I think because the first column is too wide, so it is hard to associate information in the first column with information in the second. This is particularly true for table 3



**Thank you for the feedback, we have re-formatted the tables for clarity.**

Reviewer #2: The authors present a large database study in the state of Oregon from 2016-2018, examining contraceptive continuation among patients who obtain prescriptions from clinicians only vs. pharmacists.

Line 115 - I believe the authors are presenting this as a positive finding (that harm was not caused by allowing pharmacist prescriptions) but it reads more negative—as if the study was looking for a positive association with pharmacist prescription but didn't find it. It makes the transition to the next sentence "we build upon this work..." a little hard to follow in the first read through. Overall, though, the introduction is excellent and nicely introduces the reader to the subject's history and the gap this study aims to fill in the literature.

**Thank you, we have reframed the sentence as suggested.**

**Line 119**

**"An earlier cohort study of 450 women in the US found that rates of effective contraceptive use at 12 months were similar among people with prescriptions from pharmacists and clinicians."<sup>22</sup>**

Line 163 - The methods are easy to follow and succinctly presented. The primary and secondary outcomes are well-defined and appropriate for the stated aims.

**We appreciate the time and expertise invested in reviewing our work.**

Line 185 (and Line 253) - How were covariates rurality, payer, and age chosen? Were these the only relevant ones available in the database? Would the authors ideally have examined others if they were available or are they confident these are sufficient to have a reasonable degree of confidence in their results?

**Covariates were selected based on literature which has reported differences in contraceptive use by geography, insurance and age. We have added this information to the methods with appropriate citations. We include as a limitation our inability to capture pregnancy intention and type and frequency of sexual activity, both of which affect contraceptive use.**

**"Our data did not include information on pregnancy intention or sexual activity, both of which influence contraceptive use."**

Line 191 - The sample size of over 170,000 is excellent, but with less than 1% of patients receiving any prescription from a pharmacist (and presumably near zero exclusively from a pharmacist), how confident can the authors be in the ORs for their desired outcomes? Was a power calculation performed?

**Thank you for raising this point, which the statistical editor did as well (see below comment). To address this issue, we conducted a secondary matched analysis of the pharmacist cohort with a referent clinic based group. The matched analysis confirmed the findings observed in the multivariable regression, and is included in the Appendix and at the end of this response document.**

**"Lines 194-203**

**“Given the differences in sizes of the pharmacist and clinician prescribed cohorts, we additionally conducted a matched analysis to confirm our findings. Propensity score weighting was used to create a comparison group of people receiving prescriptions from a clinician, similar to the group receiving a prescription from a pharmacist. The propensity score variables included age, payor and rurality. We utilized the Sturmer method to trim weights below the 1<sup>st</sup> percentile for the treated group and above the 99th percentile for the untreated group to avoid instability that can be associated with weights at the extremes. We then matched pharmacist prescriptions with the referent group (clinician prescribed) based on propensity scores at a 1 to 3 ratio. Results were consistent and we present the main regression models only (Appendix).”**

Line 229 - The authors do a nice job fitting their data in with what is already known about contraceptive use based on provider type. The conclusions (that pharmacist prescriptions don't have a negative impact on continuation or gaps) seem appropriate.

Reviewer #3: This is a well written important paper. The authors analyzed a large cohort retrospectively to determine association of pharmacist prescriber types and 12-month contraception rates. This paper will contribute to policy and literature. My only comments are the tables will be easier to read if "%" are removed, and I recommend the table in the Appendix be moved to be in the manuscript.

**Thank you for reviewing our work. We have edited the tables as suggested, by removing the % symbol. With respect to moving the table in the appendix (Participant demographics), we are at our limit for figures and tables, and will defer to the Editor's judgment as to whether an exception should be made.**

#### STATISTICAL EDITOR COMMENTS:

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

lines 60-62, 198-200: Should include the actual continuation rates at 12 months for the two cohorts.

**We have added this information to the abstract (line 60-62). It is also in the results as requested, lines 202-204.**

**“We found that the rate of 12 month contraceptive continuation was higher among the population receiving a pharmacist prescription: 34.3% vs 21.0%,  $p < 0.01$ ).”**

Table 1: Need units for age.

**We have made this correction.**

Tables 2, 4: Should include crude ORs for contrast with aORs. Should include units for age. Should include a footnote enumerating the variables included as adjustors in the final model.

**Thank you, we have made the recommended changes to the tables.**

Table 3: Should include the primary outcome first, then all the various characteristics of discontinuation.

**We have edited the table as requested.**

Appendix: Need units for age. Need to specify the stats test used (I presume Chi-square), per lines 175-176.

**We have added “years” as the unit for age, and added a footnote to the tables to reflect that we used a Chi-square test, as described in the methods.**

General: The pharmacist cohort is relatively small vs its referent group. Should corroborate the multivariable regression results with close matching of the pharmacist cohort with a cohort from the referent to confirm or refute the primary outcome.

**Thank you for this suggestion. We conducted a matched analysis using propensity score weighting; results were robust to the main analysis.**

**Lines 194-203**

**“Given the differences in sizes of the pharmacist and clinician prescribed cohorts, we additionally conducted a matched analysis to confirm our findings. Propensity score weighting was used to create a comparison group of people receiving prescriptions from a clinician, similar to the group receiving a prescription from a pharmacist. The propensity score variables included age, payor and rurality. The propensity score variables included age, payor and rurality. We utilized the Sturmer method to trim weights below the 1<sup>st</sup> percentile for the treated group and above the 99th percentile for the untreated group to avoid instability that can be associated with weights at the extremes. We then matched pharmacist prescriptions with the referent group (clinician prescribed) based on propensity scores at a 1 to 3 ratio. Results were consistent and we present the main regression models only (Appendix).”**

**Appendix**

**1:3 Propensity Scores between pharmacist prescriber and 12 month 12-month contraceptive continuation rates and breaks in contraceptive coverage over 6 months among insured women in Oregon, 2016-2018**

Variable	12-month Contraceptive Continuation	Breaks in 6-month Contraceptive Coverage
	1:3 PS Matched* (95% CI)	1:3 PS Matched* (95% CI)

<b>Prescriber Type</b>		
Pharmacist	1.60 (1.41, 1.82)	0.97 (0.85, 1.19)
Clinician	=	=
<b>Age (in years)</b>		
< 25	0.901 (0.767, 1.089)	0.89 (0.723, 1.0910)
25-34	0.967 (0.823, 1.145)	0.8590 (0.6974, 1.069)
≥ 35	=	=
<b>Insurance Type</b>		
Medicaid	0.52 (0.42, 0.654)	1.370 (1.073, 1.7464)
Commercial	=	=
<b>Rural residence</b>		
Rural	0.93 (0.787, 1.121)	0.75 (0.60, 0.94)
Urban	=	=

Notes: PS = Propensity Score; Utilized 'MatchIt' R package;  
methodology: nearest neighbor logit models to create propensity scores then matched based on propensity score.

\*Propensity scores trimmed below the 1<sup>st</sup> percentile of the treated group and above the 99<sup>th</sup> percentile for the untreated group

## 16. Figures

Figure 1: The file may be submitted with the revision as-is.

Figure 2: Please add tick marks along the y-axis.

**We have updated the Figure as requested.**