Reviewer’s report

Title: Women’s contraceptive discontinuation and switching behavior in urban Senegal, 2010-2015

Version: 1 Date: 20 Nov 2017

Reviewer: Tracy Irwin

Reviewer's report:

I commend the authors for trying to identify why women discontinue or switch methods in Senegal. These women are have already accessed FP services and it is critical to find out how to keep them engaged. Overall the paper is well written, however additional analysis and more focus would help this manuscript have more impact.

I would consider spending less time describing the entire cohort (which includes approximately 45.6% of women with reported reduced need) and more time looking at women who are in need, switching methods, and having method side effects and/or failures.

Additional analysis should include some reference to the passage of time and multiple observations per women. You looked at women over five years, however lumped all their FP use or non-use into one variable. Multinomial logistic regression should not be used when multiple observations are used over a time span if women are allowed to change within the time frame. Consider changing your method to generalized estimating equations or mixed effect. I find your decision to use the "in need" group as your reference in Table 5. Perhaps consider two separate questions 1) In Need vs. No Need and 2) among women who are in need - who switches and who doesn't. Furthermore, in Table 4 addressing the amount of time to next event and whether that event is pregnancy or next method is an important question to answer.

Specific Comments:

Background

Overall this section is too long. Line 86-92 consider deleting. Line 94-97 already stated in line 81 consolidate or delete. Line 98-11 move this to discussion section and compare to your results. Line 113-118 deleting not important for your paper or what you are trying to discuss.

Methods

Line 170-171 as noted above time and how it fits into your analysis need to be clarified
Line 171-175 Move to discussion section. OK to simply state no censor period was used.

Line 189 (up to one month? 30 days?) be specific

Line 190 - See above for concerns about your analysis

Results

Table 4 - Clarify pregnancy intention/need as you discuss pregnancy rates. You found pregnancy is higher after stopping certain methods, but you don't discuss this in terms of need/intention. Perhaps women choose pills or traditional methods as they are perceived as easier to discontinue to become pregnant.

Line 278-279 - elaborate here - this is the group that needs further discussion.

Table 5 - see comments above. The column on left need to be predictors. Can you say with certainty that "method discontinued" and "source of method" are predictors and not outcomes? You need to list P-values for overall categories not just subsets.

Discussion

Line 314 - clarify as your results don't support this statement - there isn't discussion of time.

Line 326 - Does your data allow you to discuss this further - why so high?

Line 336 - inherent bias or recall bias?

Conclusion

Line 353-358 - I agree with the authors conclusions here, and hope they can look at their data more closely to provide programs and MOH more specific information on how to provide durable FP services.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
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I am able to assess the statistics

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