Title: Are family planning vouchers effective in increasing use, improving equity and reaching the underserved? An evaluation of a voucher program in Pakistan

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Reviewer: Ilene S Speizer

Reviewer's report:

General comment: While the authors are resistant to showing the data at endline separated out by voucher and non-voucher sample in the intervention area, this descriptive information would strengthen the presentation at times. Because, as indicated by the authors, 99% of the voucher clients were users and IUD was the most common method adopted by voucher clients, the intervention area data will, by default, have higher modern method use; this makes it hard to compare across the two areas and over time. Further, for the discontinuation analyses it would be good to at least show the results by time period to make the point that there are improvements over time in continuation in the intervention area. The sample size might be too small to do this by voucher and non-voucher group but the voucher group should be large enough to merit its own column in the discontinuation table (at endline). The switching information would be particularly salient at endline for the voucher group since the intervention offered the opportunity to switch. This would strengthen the presentation of how the program was useful.

The authors still do not address the problem of overlapping sampling frames. The explanation provided by the authors that the frames do not overlap is not a complete explanation since the removal of the households where voucher clients resided means removing potential non-users as well. The discussion of weights that is added provides the adjustment to their sample based on the stratification (and can be dropped). It does not address the sampling challenge that comes from the sampling frames overlapping; at a minimum the bias introduced with overlapping sampling frames should be addressed as a limitation in the paper if the authors are unable to adjust the sampling weights accordingly.

Details of the intervention - while there are four bullets on the intervention and the reader is referred to another article about what it included, for this paper it is important to know who was targeted - all households or poor households; and whether ALL households in the intervention area were reached/eligible. This is relevant for this paper trying to evaluate the program.
Comments on the results section

1) The first paragraph only describes the endline sample. This is characteristic of the entire results section that is very minimalist with few details on what is in the tables.

2) Demographic characteristics - drop marital status from first sub-heading since there is only one sentence and it is about age - all women appear to be in union - perhaps describe more details of the sample, including differences between the intervention and control areas from table 2 in this paragraph (ideally you could mention in the text p-values if things are significantly different between the groups).

3) Table 3 - I still think it would be helpful to see descriptively (since it can't be done in MV analysis) what the prevalence of CPR is for the endline/non-voucher and endline/voucher groups to see how the endline/non-voucher group compares to baseline intervention group. Perhaps provide the values in the text for the reader that questions the bias of the sampling strategy like this reviewer. The large increase in IUD use was contributed by the voucher clients which is good and would explain the lower discontinuation as well. The details on the voucher clients use and methods of choice comes up later on page 10 (targeting voucher clients) and would be useful to present earlier to inform this presentation.

4) The discussion of Table 4 on awareness is biased as it only points out the significant increase in knowledge of pills, injections, and IUDs in intervention areas whereas there were significant increases in the control area as well. Further, at endline, the control area had higher awareness than the intervention area.

5) "Targeting voucher clients" - the first sentence "as mentioned in the methods section…" This is not actually mentioned in the methods section and again the reader is referred to another paper which leaves the reader hanging. This would be the place to indicate that 99% of voucher clients were using a method followed by the method mix that is given (IUD and condom). Ideally, this information would come earlier in the results section since it is related to all the results that follow.

6) The statement (right before reference to Table 6): "The data also indicates that compared to their affluent counterpart clients the odds for better contraceptive knowledge for any method, ever use of any method and modern method use was higher among the lowest two quintiles." This is confusing since it states "clients" but I think this is based on the DID analyses that uses the full baseline and endline samples. This statement should also say that this is from multivariate analyses. Again, this is an example of a minimalist approach to writing. Could time (baseline vs. endline) be put into this analysis?
7) Equity analysis - perhaps give a little more detail in the text. For example, not only is the overall intervention group higher than the control group, but this is true for the poorest quintile. That said, the statement is not necessarily true for the richest quintile in comparing intervention and control groups. At the bottom of Table 7, it says "antenatal care from skill birth attendants"; this needs to be fixed. Is there any reason why the concentration index analyses are not done separately by baseline and endline?

Tables: Tables 5, 6 and 7 - the title should clarify which data are being used in these tables/analyses. I had to do the math to figure out that Table 5 was baseline and endline jointly.

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?
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Yes

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