Reviewer's report

Title: What Contraception Do Women Use After Experiencing Complications From Abortion? An Analysis of Cohort Records of 18,688 Postabortion Care Clients in Tanzania

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Reviewer: Diana Foster

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Contraception after PAC in Tanzania

This paper documents the promotion of post abortion care in primary care centers in four regions where it used to be available predominately in hospitals. The spread of postabortion care to new facilities seems much more interesting than contraceptive use, especially given that the authors can't report whether all methods were actually available.

I find that much of the language in the title and introduction suggest that abortion is more dangerous than it actually is. The word "surviving" in the title is misleading. Most women are at no risk of dying from complications. A more scientifically accurate, less inflammatory title would be "Contraceptive use after post abortion care in Tanzania"

I would like some background about the level of complications women are experiencing. I would have expected that many women would have used misoprostol to induce an abortion and their seeking of postabortion care is to check that the abortion is complete. Is this not the case? Relatedly, I don't believe that the end of the first background paragraph is correct. 2/5 "suffer" complications without receiving "necessary" treatment. It is not known whether women who don't come in actually need treatment. Many abortions are illegal but not unsafe and need little care. The citation for this is based on facility treatments for women who did need care. I don't think we can presume that women who don't come in have the same level of complications. The "advised" delay of 6 months after an abortion is not evidence based. The citations 4-6 have nothing to do with recommended pregnancy intervals. The latest review of this topic (published in Human Reproduction in 2017) disputes these recommendations. https://www.ncbi.nlm.nih.gov/pubmed/27864302

What is the availability of medication abortion in Tanzania? Why are PAC services not using misoprostol?

And, why are nearly 100% of women in PAC receiving a uterine evacuation? This must represent vast over-treatment, unless you only define a woman to be receiving postabortion care if she did have a uterine evacuation (in which case you need to say this and also report how many women didn't get a uterine evacuation). The levels of medical intervention you are reporting here seem alarming.
Not knowing whether all methods are available at all sites is a major limitation. At a minimum, your models should be adjusting for clustered data by site - so that if hospitals don't offer short acting methods, or primary care clinics don't offer LARC, you are not attributing the shortcomings of the facility to the characteristics of their patients.

The paper needs to be edited. We don't typically talk about hospitals being decongested. The whole discussion needs to be rewritten for clarity. "family Planning" is a euphemism and it doesn't just mean contraceptives. Some people consider any method to plan to have a child, to avoid a pregnancy or avoid birth after pregnancy to be family planning methods. What you mean is contraceptive services. You can retain "Family planning" but you need to explain that you only mean contraceptive services.

The finding that MVA has become more common than sharp curettage is a wonderful finding. This is more important than the contraceptive use findings. Where is postabortion care with misoprostol in the mix?

The section on trends in decentralization seems important but I don't understand it. What does the sentence "however, the decentralization.. never resulted in significant changes in care seeking for PAC services" mean? it seems like there was a huge increase in patients.

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?
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No

Are the conclusions drawn adequately supported by the data shown?
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