Reviewer’s report

Title: The elimination of healthcare user fees for children under five substantially alleviates the burden on household expenses in Burkina Faso

Version: 2
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Reviewer: Priyanka Saksena

Reviewer’s report:

This is a paper that uses panel data to examine the effects of an intervention to eliminate user fees for children under 5 in two settings in Burkina Faso. This is potentially a useful study because of the interest in user fee issues in the country. However, this paper needs considerable revision to make to its conclusions more reliable. This is mostly in relation to the statistical models applied in the paper. As the authors point out in the Discussion, due to a small sample size the models they are applying are problematic. As such, the authors should also apply other (simpler) to ensure that the results they are finding are reliable.

Abstract

1. The abstract is not written very clearly - this is particularly the case for Results paragraph. Also, is the intervention from 1998 (as stated in the abstract) or 2008 (as stated later in the paper)?

Introduction

2. There are a number of studies on the actual financial risk protection experience of user fees exemptions for children in Africa - for example from Kenya and Tanzania. This should be cited instead of saying that there is no research has been done in this area. (If the authors mean there are no before and after studies for the intervention, this should be stated more clearly).

Methodology/Results

3. Were the recall periods 1 month for all the expenditures?

4. How many households are in rural vs. urban settings in the sample?

5. In Figure 1, it would be useful to present the expenditure incurred per episode rather than the total expenditure per household.

6. It would also be useful to present in a Table the mean, median and IQR of the different categories of expenditure (e.g. consultations, medicines, etc). On a similar vein, it is possible to breakdown the expenditure by children who were hospitalized and children who were not hospitalized? This could be quite interesting to analysis if the data is available.

7. What were the confounding factors controlled for in the model? What was the...
precise specification of the model? I imagine its a fixed effects specification, it would be better to present this clearly. (In its current stage, it's hard to understand exactly what you are doing in the methodology)

8. Additionally for the models, it would be useful to provide the basic model statistics on the fit, etc. - indeed, the sentence about the convergence problems on Page 6 is not reassuring. Overall, it would also highly useful to use a simpler fixed effects setup without the multi-level bit to verify the results, especially if you are not available to reach convergence. Without this, it's hard to accept the results with any confidence.

9. The statements about the differences between the poor and non-poor do not stand up against the statistics - there is a overlap of the confidence intervals in all of the results. This commentary needs to either be removed or it needs to be explicitly clarified that the commentary is not related to the modeling analysis done the paper

Discussion

10. Once again, there is no statistical strength in the conclusions regarding poor vs. non-poor households. As such, the wording of statements about the poor vs. non-poor need to be quite careful in order not to mislead the reader.

11. Whereas the discussion on the political will and challenges is interesting and undoubtedly pertinent in the larger context, its not particularly useful here given the scarcity with which the paper describes the actual intervention. I would suggest to balance the description of the whole intervention with the political will and challenges section to allow the reader to better understand the context.

Please note:
Comments 3-9, 11 are related to major revisions
The other comments are related to minor revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests