Reviewer's report

Title: Do the socioeconomic impacts of antiretroviral therapy vary by gender? A longitudinal study of Kenyan agricultural worker employment outcomes

Version: 3 Date: 23 March 2009

Reviewer: James Habyarimana

Reviewer's report:

This paper utilizes the best data on labor market/socioeconomic outcomes to address an important question. Statistical power limitations aside, I think this paper makes an important contribution to our understanding of the response to treatment programs in developing countries. My main comments are primarily based on my doubts about whether we can interpret the results here as 'socio-economic impacts of treatment'.

1. Minor revisions

The conclusion of this paper seems to indicate that the productivity response of women is not as large as that of men. But it is not clear whether this is because the impact of treatment differs (the authors note that there is not much evidence to support this), and they suspect that this might be the result of a variety of other factors. If possible, it would have been great for the authors to show some biomarker-based evidence of the response to treatment. As it is, these results could be interpreted as they suggest but also that since female compliance to reduced work schedules (and the overall treatment program) is better, their life expectancy (and by extension life time income) would be higher than that of men. At any rate, any information from households, the hospital or workplace that would help understand why we observe the productivity responses we do would make this a much better contribution. For instance it is not inconceivable that adherence outcomes are worse amongst women as a result of discrimination in the implementation of the 'zero' transport cost policy.

2. Secondly, towards the end of paper (page 16), the authors refer to the gaps they measure as average treatment effects. While the methodology used here is sound, what they measure is not strictly a treatment effect since the synthetic control group would have to be HIV+ as well and have no treatment. The synthetic control group (which includes asymptomatic HIV+ individuals as well as HIV- individuals) simply helps pin down the time trend in productivity and other company policy such as the remuneration and composition of work offered. The authors should change this language accordingly.

3. The authors refer to the task allocation for the synthetic control group that raises some questions about interpretation. Firstly, I think that rather than refer to the other tasks as less strenuous, I think that a better categorization might be along the remuneration dimension. Weeding can be very strenuous. What is puzzling is that given the powerful incentives to pluck tea, men are more likely to be involved in non-plucking activities (bottom of page 9). While this is not a big
problem for the main results, it does suggest a strong gendered policy at the company level in the allocation of tasks that could be an interacting confound with disclosure (which is likely lower for males).

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

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests