Reviewer's report

Title: Sexual Behavior and Vulnerability to HIV Infection among Seasonal Migrant Laborers in Metema District, Northwest Ethiopia: A Cross-Sectional Study

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Reviewer: Jennifer Hirsch

Reviewer's report:

Major compulsory revisions

The authors have clearly put in an enormous effort in strengthening the paper in response to reviewers comments, and it is improved. While the literature review on page 3 is stronger, it still focuses on comparing the rates of particular risk practices, whereas I would contend that because the geographic locations to which they are comparing rural India are so different, what is really meaningful is the correlation, rather than the specific numbers, and it would be much clearer if the authors would articulate specifically the comparisons that they are discussing, I have suggested what I mean in the following paragraph:

Migrant workers are likely to engage in unprotected sexual activities with high-risk populations such as CSWs, which place them at high risk for acquiring HIV or other STIs. Studies in India revealed that migrant workers have higher rates of risky sexual behaviors such as non-marital sexual intercourse at the place of destination than they do at the place of origin [12]. Other studies in North Carolina and California indicated that migrant workers living apart from their wives more are likely to engage in higher rates of commercial sex than are migrant workers whose wives are with them [13,14]. Other studies in India, South Africa, and Croatia revealed that condom use is less practiced among seasonal migrant workers while having sexual contact with any casual or commercial sexual partners than it is for non-migrant workers have casual or commercial sex? Or than it is for migrant workers having sex with long-term partners? [15-17].

Two additional very specific suggestions: first, although the literature review is stronger, the primary limitation of the paper at this point is the focus only on the individual level, which obscures the more population-level factors which may be driving the associations that they discuss. While the data themselves are only at the individual level, authors should at least acknowledge this broader context, both in the lit review and in the suggestions for further research and policy responses; the scope of the epidemic makes it critical think about prevention approaches that go beyond the individual level. Two suggested readings:

Authors are encouraged to consider that the connection between HIV and migration is not inevitable, but rather reflects the context of migration. A more macro-level conceptualization of the determinants of vulnerability, even if the data themselves are at the individual level, might lead to a useful discussion of the policies and institutional practices within Ethiopia that shape the migration process and the new social environment encountered by migrants. What, for example, regulates the housing in which migrants live? The social activities and leisure time spaces to which they have access? The conceptual framework on page 5 presents both of these domains as determinants (which they are), but there are policies behind both these domains which might be targets of collective action to reduce migrants’ vulnerability.

These same issues arise again on the top of page 14, where authors compare the rates of non-marital sex or commercial sex to findings from India, North Carolina, and California. So much has been written about migrant laborers and HIV around the world, and it is not at all clear why these are the comparison sites. If they are going to compare specific rates of various practices, might be more appropriate to compare with migrant agricultural laborers elsewhere in Africa (see, for example, the IBBS report from November 2010 on agricultural workers in South Africa, available from www.iom.org.za (there are a lot of interesting and relevant publications here, but I would suggest that one in particular, which can be found on this page: http://southafrica.iom.int/publication_categories/migration-health/page/6/). In terms of making a ‘conceptual’ rather than descriptive comparison, authors are encouraged to discuss their findings in light of the Biddlecom conceptual framework (or, even better, the conceptual framework from the Weine and Kashuba literature review), and discuss which influences are present or absent, or which ones they do not know about. For the comparisons they use to be really meaningful (the ones referred to on the top of page 14), one would need to know a great deal more about the circumstances in which migrants live in these very diverse locations, the general duration of stay, income relative to cost of living, etc.

The limitations of the focus only on individual characteristics is underlined by the paragraph about the effect of income on casual and commercial sex while away from home. One logical (but absurd) response would be to suggest paying migrant workers less. I use this only as an example to emphasize the importance of more closely considering context. In terms of the general relation of income to HIV vulnerability, I recommend to authors the work of Ashley Fox, who has made critical contributions to our understanding of the relationship between income and vulnerability in Africa.

Minor essential revisions:
Page 1 – the number of HIV infected persons in the country is still one of the highest (really? Compared to what?)

Page 6 – not the workplace, the migrant-receiving destination – people mostly do not have sex at work, right?

Page 6 – poor condom promotion efforts not the only reason migrants do not want to use condoms with their spouses, they may also feel that condoms are not appealing because of connotations of multiple partnerships (see Hirsch, J.S., Higgins J, Bentley M, and Nathanson C. 2002. The Cultural Constructions of Sexuality: Marital Infidelity and STD/HIV Risk in a Mexican Migrant Community. American Journal of Public Health, 92(8):1227-1237.), or else they may not have access to condoms

Word missing in first sentence of section “Sampling” on page 7

Ethical considerations might be more logically placed after data collection on page 8

Page 15 Use of the word “deterministic”, explained in response to review, is still not clear in text, I suggest rewording in a way that more clearly explains what they are arguing.

Is the fact that those on the farm longer more likely to use a condom still true when you control for the fact that those who are away longer also more likely to have had sex? Or about age structure of longer term migrants?

Rephrase findings of study on page 16, relationship between labor migration and migrant workers’ vulnerability to HIV has already been conclusively demonstrated. “The same relationship that has been found elsewhere between migration and vulnerability to HIV exists among migrant agricultural workers in Ethiopia”.

Section titled “Strengths of the study” discusses desirability bias, perhaps retile strengths and limitations? Also, as I have suggested, a principal limitation of this study is that it only collected data at the individual behavioral level, so can’t speak to ways in which the context of migration might have influenced behaviors.

The point of that UNAIDS guidance is that martial and militaristic language about HIV is to be avoided altogether, it is stigmatizing because the fight against AIDS slides all too easily into the fight against people with AIDS. Suggest changing to “the response to AIDS”.

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

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the
statistics.

**Declaration of competing interests:**

I declare I have no competing interests.