Reviewer's report

Title: HIV Surveillance in a Large, Community-Based Study: Results from the Pilot Study of Project Accept (HIV Prevention Trials Network 043)

Version: 2 Date: 10 July 2011

Reviewer: Connie Celum

Reviewer's report:

Minor Essential Revisions:

1. The article is a straight-forward, well-written summary of performance of rapid HIV tests from Project Accept. It is a large study with over 2200 individuals who participated in a pilot study from the sites in South Africa, Zimbabwe, Tanzania and Thailand. The major findings are a summary of baseline HIV-1 prevalence by country, which was minimally affected by Central Lab confirmatory testing at the HPTN Central Lab, and 2) that two rapid HIV tests had excellent sensitivity and specificity with <1% of rapid HIV test results not being validated by EIA and Western blot, and for discordant results, HIV-1 RNA PCR.

2. Certain aspects of the methods, such as the CD4 testing on pg 5, are not relevant to the objectives of this paper and could be deleted. In addition, to shorten the manuscript, the authors could delete description of the specimen storage data systems (bottom of pg 6) and the listing of each IRB (pg 8).

3. Given the consideration of different serologic assays and the desire to identify persons in the antigenemic/antibody negative period in population-based HIV screening programs like Project Accept, it would be useful for the authors to comment on the relative costs and additional acute HIV infections they detected by their use of the Architect Ag/Ab combo assay for detecting acute HIV. It looks like it was potentially as low as a few samples based on the proportions of the HIV neg and discordant samples that were found to be HIV+ (and most of those were positive by Western blot so unlikely to be in the acute HIV stage).

4. In the discussion, it would be useful to frame their results in terms of concerns about poor sensitivity of rapid HIV testing in field settings in South Africa (Wolpay BMC Health Services Research 2010). Given the much higher test performance in their report, it would also be useful to highlight that the rapid tests were performed in local labs in the Project Accept sites with EQA systems rather than by HIV testing counselors. Thus, their findings are encouraging for the accuracy of rapid HIV tests used for surveillance and diagnosis in many low resource settings, but training and EQA systems are an important component of ensuring such high test accuracy when performed by lay counselors in field settings.

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