Reviewer’s report

Title: Personal carbon monoxide exposure, respiratory symptoms, and the potentially modifying roles of sex and HIV infection in rural Uganda: a cohort study

Version: 0 Date: 18 Mar 2019

Reviewer: Okello Gabriel

Reviewer's report:

This paper presents interesting results which support for the use of ambulatory CO monitoring as a low-cost, feasible method to identify subgroups with heightened vulnerability to pollution-related respiratory morbidity in resource-limited settings.

The topic is very relevant and findings are vital in informing policy interventions focused on decreasing respiratory morbidity among the most vulnerable populations in sub-Saharan Africa.

The authors must however address the following issues before the paper is published:

1- Lines 103 to 104: Authors should include a line stating procedures that study participants followed during bathing and sleeping activities within the 48-h of measurement.

2- Was there any method used to test whether participants wore the Lascar CO monitors for all the 48 hours or the for the duration of measurement?

3- Did the authors select a minimum % of the CO data as sufficient to computation/analysis?

4- How representative is the study site compared to rural areas in SSA?

5- Appropriateness of sample size: Was there any basis (i.e. a power calculation, prior preliminary data) used to determine the 260 study participants? Note: The reviewer understands the challenges of field work and recruitment.

6- Lines 120 - 122: The authors explain that they elected to quantify exposure using the 1-hour and 8-hour TWA to capture exposures of shorter duration such as meal-related biomass smoke yet participants did not complete time-activity analyses as stated in line 293. I think authors should add examples of other possible determinants which could have led to the exposures captured.

Meal-related biomass smoke is likely to affect mostly the
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An article of importance in its field

Quality of written English
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Acceptable

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