Reviewer's report

Title: Rural-urban differentials in pregnancy-related mortality in Zambia: estimates using data collected in a census

Version: 2 Date: 9 November 2015

Reviewer: Laura Dwyer-Lindgren

Reviewer's report:

Minor essential revisions

1. It would be helpful if the authors explicitly state the variant of the P/F ratio method that they apply (the citation provided describes a large number of variants). Based on the information in table 1, it seems the variant used was the hypothetical inter-survey cohort version, but it would good to not have to reason that out.

2. On a related note, the authors state that they use the average of the P/F ratios for age groups 20-24, 25-29, and 30-34 as the final correction factor for live births; they should additionally provide a rational for this choice.

3. There appears to be an error in table 2 – the final coverage for Urban is the same as the GGB coverage, not the GGB-SEG coverage as suggested by the methods section and the correction factor given in table 3.

4. Figure 4 is missing an x-axis label for the age group 15-19 and the axis labels for the other age groups are shifted to the left.

Discretionary revisions

1. Figure 4 seems odd; it’s not clear what it adds since the same information is available in table 3. Additionally, figure 4 focuses on the crude PRMRatio estimates, but the most interesting results are the adjusted values. In any case, I think this figure could be dropped without losing much.

2. It’s not clear why the authors report on 30d10/20d40 and 20d20/20d40. This measure is only loosely related to maternal mortality and is commented on only in passing in the results section. Further, the language used to describe this measure in the results section is problematic – life table deaths are not the same as actual deaths (the latter is sensitive to the population structure which is not accounted for by the former), but that distinction is lost. Given that this measure isn’t adding much to the paper, I’d suggest dropping it entirely, but if it is left in the description of these results should be clarified to recognize the distinction between life table deaths and actual deaths.

3. The top half of table 2 doesn’t need the column specifying ‘Age Range’ since there is only one range considered.
**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.