Reviewer’s report

Title: Intracluster correlation coefficients for the Brazilian Multicenter Study on Preterm Birth (EMIP): methodological and practical implications

Version: 1 Date: 13 January 2014

Reviewer: Abhik Das

Reviewer’s report:

Cluster based public health studies, including cluster or community randomized trials are increasingly common in global public health research and evaluation, and a common problem in designing such studies is the lack of published estimates of ICC from large well done studies conducted in diverse settings. The premise of this study is thus quite promising and its results can be very useful for future cluster based studies (though one limitation is that it is restricted to one specific form of clustering -- hospital based).

Major Compulsory Revision:

1. The motivation presented by the authors in the Introduction can be further strengthened, both by better explaining why this is important (specifically, there is a surprising lack of mention of cluster randomized trials, which are perhaps the most high impact form of public health research/evaluation study design that can benefit from good extant estimates of ICC) and what the ICC is (the algebra provided is perhaps less useful than an education on the concepts underlying the ICC and why clustering is important to account for).

2. There is no information presented in the Methods section on how the crucial ICCs were calculated and whether there was any modeling or adjustment done.

Although the desire to be exhaustive is understandable, in reality ICC estimates are more helpful only for variables that can be thought of as potential outcomes in other studies and not covariates.

Level of interest: An article of importance in its field

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

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.