Reviewer’s report

Title: The Four Pillars Approach in managing pregnant women with anaemia in Yogyakarta, Indonesia

Version: 3 Date: 25 February 2014

Reviewer: Benn Sartorius

Reviewer’s report:

Major Compulsory Revisions

--The primary unit for intervention (i.e. the health centre or primary cluster) could be better described in the protocol e.g. your design is a clustered (health centre) RCT measuring person level (individual) outcomes i.e. secondary level. Also if this is a comparison at follow-up versus a repeated measure clustered design could also be more clearly defined. The use of “improved” in the primary outcome definition suggests repeated but I do not think this is what the researchers are necessarily proposing.

--Sections for “Model Building” and “Diagnostic and fit assessment” have been include but these are not discussed as statistical issues but rather as the “overall intervention model development” and “monitoring/evaluation of the study”. I would keep these sections but rename them appropriately. The following however still needs to be amended: By model building I meant how you plan to build you multivariable logistic regression model for instance. Diagnostic assessment of the model relates to how you will check that the statistical model fit, that it does not violate any underlying assumptions and its predictive capabilities. You description how you will deal with clustering in your analysis is inadequate i.e. “mixed model equivalents”. Describe the approach in more detail.

--Study setting, bottom of page 7, top of page 8: the selection of midwives is still confusingly described. You mention that on average 7-10 midwives are present in each health centre and that you will randomly select 2-3 from each. How can you possibly then include 90% of midwives? Also the idea of selecting a subset of midwives in each intervention health centre does not make senses as you will dilute your effect. This still needs to be justified.

--Abstract, methods: You incorrectly list the power as 0.08 instead of 0.80.

Minor essential revisions

--Include references for the software to be used.

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

Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests.