Reviewer’s report

Title: Antenatal counseling in maternal and newborn care: use of job aids to improve health worker performance and maternal understanding in Benin

Version: 1 Date: 10 June 2010

Reviewer: Joanna Stewart

Reviewer’s report:

Statistical review
The hierarchal model using random effects to allow for the clustering, and looking at the interaction of time period and study arm is, as stated in the methods, an appropriate statistical analysis for the design of the study. However the authors have in addition reported invalid analyses which do not take the design into account. These analyses add nothing to the paper other than making it more confusing to read and any confidence intervals or p values resulting from them are meaningless. As the study has indeed been correctly analysed the removal of the many invalid analyses will not change any conclusions drawn from the study.

Major
1. Remove all unadjusted analyses from the tables and text
2. Remove all the within group analyses from tables and text.
3. Report actual p values – not < or > .05
4. Remove the statistical tests of baseline differences. What is important here is how different the values are (so it is important to present the information in table 1). However a statistical analysis is testing whether the population from which those in the control group are drawn differs from the population from which the intervention group is drawn, which makes no sense as the sites were randomly sampled from the same population. When looking at the baseline characteristics you are simply interested in how different they are – ie the actual observed characteristics of the groups – the concept of statistically significant – ie whether there is a true difference in the underlying populations is inappropriate. The only reason for so many p values <.05 (you would expect 5% by chance) is the clustering was not adjusted for.

Level of interest: An article of importance in its field

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