Reviewer's report

Title: Early BCG vaccine to low-birth-weight infants and the effects on growth in the first year of life: A randomised controlled trial

Version: 1 Date: 20 October 2014

Reviewer: Benjamin Kagina

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General comments: The authors’ research question is well defined and relevant in the context of BCG use in Africa. The authors used credible methodological approaches that are clearly explained and the data presentation is good.

The results appear to be genuine and the manuscript adheres to the relevant standards for reporting.

The discussions and conclusions are well balanced and adequately supported by the data. However, I suggest the authors not to mention anything to do with policy of BCG use as they have done (page 13) in the discussion because the aim of using BCG (from a policy point of view) has nothing to do with growth of children.

The limitations of the work are clearly stated. However, more limitations should be stated taking into account what are the major factors that associated with infants’ growth curves.

The authors are very well established in this field of assessing non-specific benefits of vaccines and clearly acknowledge any work upon which they are building, both published and unpublished, in the introduction and discussion sections.

The title and abstract accurately convey what was found and the writing is acceptable.

Major comments
1) Infants born at hospital versus home could have major social economic differences that would affect the primary end point (growth) of this study. Authors should stratify the analysis based on place of birth, i.e hospital versus home.
2) In general, infants’ growth is largely dependent on nutritional status. Did the authors assess the nutritional intake of the children? Related to the nutritional intake question, did the authors assess the breast-feeding practices? The factors (breast feeding and nutritional intake) are key co-variates that need to be controlled for in reporting growth among infants. Other important co-variate would be the frequency of morbidity events.

Minor comment
1) Supplementary Table 1: The “MUAC* /cm (Mean, SD)” reported at all time points (2, 6 and 12 months) has similar values, yet the P-values are different. Why?