Author’s response to reviews

Title: Poor weight gain in low birth weight infants following hospital discharge in Kampala, Uganda

Authors:

   Flavia B Namiiro (bnflaviah@gmail.com)
   Jamiir Mugalu (mugalu89@yahoo.com)
   Ryan M McAdams (mcadams@washington.edu)
   Grace Ndeezi (gracendeezi@yahoo.com)

Version: 3 Date: 2 December 2011

Author’s response to reviews: see over
Dear Editor,

Thank you for the comments to our responses. We are pleased to submit a revised version of our manuscript (Re MS: 6027923475675414 - Poor weight gain in low birth weight infants following hospital discharge in Kampala, Uganda) that has been modified based on the new suggestions made by the reviewers, Drs. Barria and Olson. We appreciate the constructive comments and our responses are itemized below.

Very respectfully,

Flavia Namiiro

Reviewer 1

Major Compulsory Revisions
1. Although the authors state that did not use statistical inference, the use of probability values and confidence intervals show the contrary. Consequently, if there was no random sampling values should be expressed as punctual estimation. This point must be clarified.

Response: ANOVA assumes the distributions are normal and homogenous, ANOVA works best with continuous variables and ANOVA compares the means of two normal distributions and calculates the probability of randomly sampling subsets of data with that degree of mean difference from a larger population. ANOVA is “punctual” in that a point (mean1) is being compared to another point (mean2).

2. I insist that in the tables of association or risk (OR) should perform a calculation based on total population considering the outcome failure to regain birth weight as an outcome. But are estimating only a subset of cases.

Response: We disagree with the reviewer regarding this point. Risk calculations specifically calculate the frequency of a condition between separate subsets. It is inappropriate to combine the subsets and calculate risk using the entire population as the denominator.

3. The criterion for considering the multiple births as independent observations is
arbitrary and there is no justification for it. This makes the incorporation of a bias because the environment and care, including food, derived from the same mother.

Response: We appreciate the reviewer’s suggestions, but disagree with this point. It is conventional to consider each individual infant as an independent subject. It is not a bias, but rather a more controlled comparison precisely because the environment and nutrition are identical and, therefore, the risk reflects each infant’s individual intrinsic response to controlled conditions. It would be invalid to consider twins any other way, or to ignore one twin.

Minor Essential Revisions
1. If the distribution was assessed for continuous variables should specify the test or how to evaluate this aspect.

Response: Scale and ratio variables are continuous by definition (weight, height, mass, temperature), ordinal and categorical variables are not continuous by definition. A distribution is not continuous or discontinuous.

Does the reviewer mean homogenous? If so, then Levene’s test is used in combination with ANOVA to assess homogeneity. If the distribution is not homogenous, then non-parametric comparisons may be considered. This is only a consideration, not a restriction. Even when a distribution is non-homogenous, ANOVA may be a better choice than Kruskal-Wallis or Mann-Whitney U because ANOVA tolerates violations of the homogeneity assumption better than the non-parametric tests tolerate violations of their underlying assumptions. Overall, ANOVA is the most stringent and best choice for comparison of population data. This is the conventional approach.

2. For the sample size estimation should be clarified the level of statistical significance (#) and power (#). These are different concepts.

Response: The sample size was 235 infants and the magnitude of desired precision was 80%. P values of < 0.05 were considered significant.

This line has been inserted in the manuscript on page 7: "The sample size was 235 infants and the magnitude of desired precision was 80%"

3. The table 2 shows categories >32 and >32#32 for the variable gestational age.
Response: This has been corrected.

Reviewer 2

There were no comments to address from the reviewer