

Reviewer's report

Title: Chronic growth faltering amongst a birth cohort of Indian children begins prior to weaning and is highly prevalent at three years of age

Version: 2 Date: 2 September 2009

Reviewer: William Checkley

Reviewer's report:

The authors have added some important analyses to their paper to show that drop-out was indeed non-informative and that missing data did not have an effect on their analysis. The authors have answered all my questions adequately and admirably. Indeed, follow-up was fairly complete, with >80% with data up to 3 years of age.

One last request: I would like to request additional information from the authors, and that is an additional analysis of the effects of infections on height-for-age. Dichotomizing data may prevent the authors to observe a relationship between illness and chronic growth faltering as defined by height-for-age (especially as stunting rates are high in this community). See Royston P, Altman DG, Sauerbrei W. Dichotomizing continuous predictors in multiple regression: a bad idea. *Stat Med.* 2006 Jan 15;25(1):127-41. Altman DG. Problems in dichotomizing continuous variables. *Am J Epidemiol.* 1994 Feb 15;139(4):442-5. (The advice in these articles can be applied to both predictors and outcomes). While it is commonplace to dichotomize data in epidemiological studies, the authors may actually fail to see if a relationship really exists by this "subjective" characterization of the data (when indeed the height-for-age Z-scores are likely to be nicely normally distributed). I would like to advocate once more that the authors examine the data and provide an analysis in which height-for-age is used as a continuous outcome and regressed on illness rates in the first 3 years (with the average number of episodes of ALRI/child-year as one variable and the number of diarrheal episodes/child-year as another variable). Please provide as single variable regression and in multiple variable regression (i.e., adjusting for confounders and other important determinants of stunting).

Minor comments

Change multivariate with multivariable or multiple variable

Data is consistent with findings in previous work that early growth deficits appear irreversible and are associated with risk of linear growth retardation / stunting (*Int J Epidemiol.* 2008 Aug;37(4):816-30, *Am J Epidemiol.* 2003 Jan 15;157(2):166-75).

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