Reviewer’s report

Title: The prevalence of stunting, obesity, and metabolic disease risk in contemporary rural South African children

Version: 2 Date: 18 January 2010

Reviewer: Una E MacIntyre

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MINOR ESSENTIAL REVISIONS

i. Although the authors state that the desired sample size was 100 participants per age and gender, the final analysed sample was 3489 participants. No indication is given as to the final sample size per age gender group. Thus it is not known whether sample sizes remained comparable across age and gender groups. It is suggested that the authors consider adding the n per age and gender to the existing figures.

ii. In line with the above, it is recommended that the sample sizes per gender and pubertal stage be given, particularly since there is such a big difference in the number of boys and girls in Tanner stage 5.

iii. The authors have used ‘undernutrition’ when referring to underweight, stunting and wasting throughout the manuscript, but in the last paragraph of the discussion use ‘malnutrition’ interchangeably with ‘undernutrition’. It is strongly recommended that ‘undernutrition’ be used throughout for consistency and clarity of the discussion.

DISCRETIONARY REVISIONS

i. The title refers specifically to stunting and obesity whereas the manuscript also reports underweight and wasting on the one hand and overweight on the other. Further, the introduction and most of the discussion deal with ‘undernutrition’ rather stunting. It is suggested that more inclusive terms such as ‘undernutrition’ and ‘overnutrition’ be used in the title.

ii. It is suggested that the aim of the study and the abstract be revised as suggested above in (i).

iii. It is suggested that the authors address the possibility of sampling bias, since the sample was drawn from the most populated villages in the Agincourt area. Could there have been population/environmental differences between the more and less populated villages that might have affected the results?

iv. The addition of study sample sizes to Table 1 would be helpful in comparing the results.

v. Reference 13 is very old (1993). It is strongly recommended that the authors use a more recent reference for the income and unemployment levels.
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests