Reviewer's report

Title: Development and tracking of central patterns of subcutaneous fat of rural South African children aged 5 to 15 years: Ellisras Longitudinal Study

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Reviewer: Vincent W Jaddoe

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DEVELOPMENT AND TRACKING OF CENTRAL PATTERNS OF SUBCUTANEOUS FAT OF RURAL SOUTH AFRICAN CHILDREN AGED 5 TO 15 YEARS: ELLISRAS LONGITUDINAL STUDY

Monyeki KD, Kemper HCG, Makgae PJ

The reviewers assessed the development and tracking of fat pattern variables of children from preschool age into late adolescence from the Ellisras Longitudinal Study. This is a cohort study based on repeated height, weight and skinfold (triceps, biceps, subscapular, suprailliac) measurements. In total, 2,225 children were enrolled at baseline and 1,771 were still in the study after 8 years. The authors found a significant tracking of subcutaneous fat variables (skinfold thickness, percentage body fat, fat mass and fat free mass) as children grew older while the skinfold ratios showed low and insignificant tracking.

The data presented in the manuscript are unique and quality of data analysis is very high. Results presented in this manuscript are important from an etiological and developmental point of view. I have only some minor remarks which are important from the perspective of a more general epidemiologist/clinician.

1) The written English is not always appropriate. I would advise the authors to contact a native English speaker or writer.

2) The paper is somewhat outbalanced with a relatively extended results section. Also, the number of figures and tables is too much. Maybe it is better to split the paper into a normal paper and additional web pages. This would improve the paper.

3) The tracking analysis is very important. The authors should perform similar analyses for body mass index (they have weight and height). Furthermore, is this tracking explained by BMI?

4) Why was no multiple imputation performed for the missing SFT. Does this change the effect estimates?

Level of interest: An article of importance in its field

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

**Statistical review:** Yes, and I have assessed the statistics in my report.