Reviewer's report

Title: Variation in the effects of family background and birth region on adult obesity: results of a prospective cohort study of a Great Depression-era American cohort

Version: 4 Date: 30 April 2015

Reviewer: Philip McLoone

Reviewer's report:

The authors have responded to my previous comments.

However, I have noticed that the authors have not mentioned how height and weight of respondents in the study were measured. I believe that these are self-reported measures.

Minor Essential Revisions

Authors must describe how weight and height were measured and if they were self-reported. If BMI is derived from self-reported measures then this is a major limitation of the study which should be highlighted in the abstract and main body of the paper. The authors should also discuss this in the limitations of the study and question whether self-reporting might contribute to observed area effects.

The abstract states in the methods section "...after adjusting for socioeconomic, behavioural and health conditions measured in adulthood...". As far as I understand no adjustment has been made for health conditions so this should be changed.

Discretionary Revision

If the analysis is based on self-reported height and weights then the authors should be upfront about this and indicate this in the title of the paper - "..self-reported obesity ..".

Level of interest: An article whose findings are important to those with closely related research interests

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