Reviewer's report

Title: Gender and socioeconomic disparities in BMI trajectories in the Seychelles using birth cohorts generated from serial population-based surveys

Version: 4 Date: 2 November 2011

Reviewer: Jessica Jones-Smith

Reviewer's report:

Thank you for the opportunity to re-review this manuscript. The authors have adequately responded to my previous comments. I find only minor issues, mostly editorial in nature, that I list for minor revisions.

All pages refer to the marked-up version of the MS.

Introduction

Changing between “overweight” and “obesity” throughout the introduction is distracting. Recommend using the most appropriate term throughout or using overweight/obesity or some other combination of both.

The authors introduce the concept of the “direct comparison between successive cohorts” in contrast to a “cohort analysis” in this version. I don’t know if “direct comparison” will be a familiar or comprehensible term to most readers, so I would recommend a more straightforward term or a definition provided upon the first use, but I would also defer to the editor’s advice in this case.

P3, last para, last sentence: is there a word missing, such as “and” after “respectively” in this sentence

P4, first para: the sentence “However, these data were based on …” “data” should be results or findings, not data.

Same para: “which does not allow to assess” should be which does not allow assessment

P4, second para: the addition of the word “all” here before data just seems distracting and instead of indicating data from all individuals who had non-missing covariates, it sounds to this reader as if all variable in the survey were used.

Throughout, the authors use the word “data” when referring to “findings” or “results”. I would recommend the word “data” be reserved for information that is not processed through tabulations or models. Everything else is better described as a finding or result, rather than data.

Page 7, second paragraph. The sentence that describes the testing of
interactions and the rationale for such doesn’t seem to match the later description in the text. Shouldn’t the interaction between SES and age test whether the relation between ses and bmi varies by age and the interaction between SES and cohort test whether the relation between ses and bmi varies by cohort (or over time). I see how age is a version of time, but the description as written doesn’t seem to match the interpretation in the results and is confusing to this reader.

Throughout, I would recommend deleting the word “effect” or replacing it with some version of “association” or “relation” since “effect” implies causality. Occasional use for simplicity might be ok, but I would recommend a more judicious use.

P10, first para, last sentence: regarding the obesegenic environment as a common cause—does this encompass the secular trend towards decreasing occupational activity as more people have sedentary jobs? Or are these separate concepts?

P12, Conclusion: Again, I find the term “all data” confusing here. Now that the N and the linear cohort variable are better explained, I do not think the term “all data” adds clarity.

Figures should be stand-alone. Therefore, the legend should include a description of which variables were in the linear regression (ie what was adjusted for and were the interactions included). This is in the text, but it should also be listed with the figures.

**Level of interest:** An article of importance in its field

**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