Author's response to reviews

Title: Risk of obesity in immigrants compared with Swedes in two deprived neighbourhoods

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Author's response to reviews: see over
Title: Risk of obesity in immigrants compared with Swedes in two deprived neighbourhoods
Version: 2

Comments by Reviewer 1:

1. Authors significantly improved the manuscript. In particular, they smoothed the flow of the paper addressing my previous concerns. There are few minor points that I think authors should clear.

Answer: Thank you. Please see below.

2. Table 2 depicts obesity prevalence by country of birth and gender. It would be nice if authors would conduct statistical test to show whether these differences in prevalence rates are statistically significant. Given that the sample size is modest it is important to make sure that the differences are statistically significant.

Answer: We appreciate this comment. We could conduct statistical tests to show whether the differences in the crude prevalence rates (see Table 2) are statistically significant. We feel, however, that such an analysis would not improve the presentation of the data because the statistical differences in prevalence rates are already analysed and better shown as age-adjusted odds ratios by gender (see Table 3). Moreover, the calculation of the odds ratios in Table 3 was based on the crude prevalence rates shown in Table 2. Adding statistical tests in Table 2 could confuse the reader because it would involve the inclusion of several footnotes, which could give a “messy” impression of Table 2.

3. Table 2 has two footnotes that are not entirely clear. I think that instead of “Men: #102 cm, Women # 88 cm” authors should have something like “Men (women) are defined to be abdominally obese if their waist circumference (WC) is # 102 (88) cm.” I would change footnote 2 in a similar manner.

Answer: Thank you for this comment. We have revised the two footnotes in accordance with this comment.

4. Table 3 demonstrates that individuals who resided in the deprived neighbourhoods for 5-9 years are more likely to be BF obese than individuals who resided in these neighbourhoods for 0-4 years. However, those who resided in deprived neighbourhoods for 10+ years are as likely to be BF obese as those individuals who lived their for 0-4 years. Thus, the adverse effect of neighbourhood deprivation on obesity is reversed once individuals lived in the deprived neighbourhoods for more than 10 years. This is a very interesting and unusual finding. I think authors should comment on it.

Answer: We assume that the Reviewer refers to Table 4. We prefer, however, not to comment on these particular findings as they are not statistically significant.

5. “Fatpercentage” in Tables 2, 3, and 4 should read “fat percentage”
Answer: We have changed the text in accordance with this comment.
Comments by Reviewer 2:

1. The Methods section has been greatly improved. On page 8, however, the authors mention that the Care Need Index (CNI) was calculated for all Swedish neighbourhoods, then state that their current study is based on 2006 data. Please indicate how often the CNI is calculated. In addition, give a little more information regarding what the score means. For example, the most deprived neighbourhood in the 1990s had a score of 53.5. What does this mean in terms of actual deprivation (average income, housing?). What was the range of CNI in the 2006 data? Is the CNI a governmental report?

Answer: We apologize for being unclear. The Care Need Index (CNI) was originally developed for research purposes and is now being used in several Swedish counties for the distribution of primary health care resources. It is based on the proportion of several sociodemographic factors in the neighbourhood. CNI is not calculated on a regular basis but the range varies only slightly between years. We have revised the text that describes the CNI. Please see the Methods section.

2. The Discussion section still does not flow although it is improved from the version previously submitted. For example, on p. 15, the first full paragraph starts “It is, however, difficult to directly compare objectively measured findings with those based on self-reporting.” The following sentence cites an objectively measured study from Greece. It is unclear what the first sentence contributes to the paper. Similarly, on p. 16 in the first full paragraph and the following paragraph, the authors’ discuss obesity in deprived neighbourhoods and communities, but it is unclear if they are making a distinction between the two. This part of the Discussion section needs to be revised.

Answer: We agree and have deleted the above-mentioned sentence on p.15. We have also clarified the distinction between neighbourhoods and communities on p.16.

3. There are still some grammatical errors and problems with consistency and flow in the manuscript. The authors have greatly improved the manuscript, however, and with some revisions, the paper should make a contribution to the literature.

Answer: Thank you for this comment. A professional translator has corrected the language in the revised manuscript.