Reviewer's report

Title: Metropolitan-level ethnic residential segregation, racial identity, and body mass index among U.S. Hispanics: a multilevel cross-sectional study

Version: 3
Date: 4 February 2014

Reviewer: Theresa Osypuk

Reviewer's report:

I commend the authors for an excellent revision; it was a pleasure to read. The authors have been very responsive to my comments, and I think the manuscript looks ready for publication.

I particularly liked the integration of the analysis of white and black segregation scores, with the hispanic segregation scores, to illustrate the simultaneous experience of multiple exposures of segregation -- e.g. exposure of blacks to high black racial segregation, for hispanics living in low hispanic segregation areas.

Discretionary Revisions

My one remaining substantive suggestion has to do with the interpretation of the Table 4 results for women, the attenuation of the hispanic segregation-BMI association after adjusting for education and language. Currently, this finding is not well interpreted, it's simply explained as attenuated after adjustment for individual level factors. While this is technically accurate, I think that with cross sectional data on such a macro-level phenomenon such as segregation that it is difficult to sort out mediators vs. confounders. I personally think that education and language could both be mediators here, especially if ethnic enclaves delay English-language use and/or track kids into inner-city (poorer quality) schools. I think that failure to explain this as potential mediation oversimplifies the results, especially for those unfamiliar with segregation, leading them to believe that tight adjustment for individual-level SES and acculturation factors necessarily leads to a better answer, when in fact we have less than perfect data.

One other suggestion is to clarify, in the last paragraph of the results (top of page 12), first sentence, that you are discussing Hispanic segregation. Currently, you describe the relationship between segregation and BMI without specifying "hispanic" segregation.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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