Title: The development and validation of an urbanicity scale in a multi-country study

Version: 1 Date: 9 March 2012

Reviewer: Elisa Puzzolo

Reviewer's report:

OVERVIEW

The manuscript submitted by Nicole L Novak, Steven Allender and Peter Scarborough attempts to develop an urbanicity scale to be used for cross-country comparisons.

This scale is based on empirical data previously collected during the Young Lives longitudinal study.

An urbanicity scale is a valuable instrument which could allow for more a refined analyses and a better understanding between urbanicity and health beyond the urban-rural dichotomy.

The aim and objectives of the manuscript are well defined and the seven domains used to build the urbanicity scale are appropriate. As discussed under the section about limitations, additional domains could have been informative (i.e. population density, availability of public transportation, access to markets). Additionally, developing an urbanicity data-driven scale could be an arguable task.

RECOMMENDED MINOR REVISIONS

Additional information on the validity of the data source (i.e. Young Lives data), including its strength and limitations are recommended. This will help to assess the validity and generalisability of the proposed scale.

TEXT

Incorporate in the discussion the following points:

• Why was the Young Lives project preferred as a source of data to build the described urbanicity scale. Could other recently collected data (from others longitudinal studies) have been used?

• Are all the community-level data in the data source sufficiently accurate?

• Please report additional details on the sample size used in Ethiopia, India and Peru with regards to the Young Lives project. (Only the number of communities which took part in the project is reported in the text).

• It would be interesting to further comment on previously published urbanicity scales (references 1,7,9,10) in order to point out the strength of your model and generalisability of your findings.
• Is it possible to create a cross-country urbanicity scale with country level data collected from different data sources?
• Can this scale be used to compare underdeveloped and highly developed countries?

STATISTICS
Methods are appropriately used but further interpretation of the statistics in table 4 and 5 is recommended.

Tables
All tables need additional comments in their description to facilitate reader's comprehension.
With regards to Table 1, provide details on:
• Population size. Does it correspond to the original sample size used in the Young Lives project? How was the range calculated? The Indian population size is surprisingly very small; can this affect the urbanicity scale?
• Built environment. Specify with a note indicating that the left side number corresponds to the number of communities with the specified characteristic (e.g. In Ethiopia, paved roads is found in 12 (20.3%) of the communities).
• Variance in housing quality index: add a foot note describing how this is calculated, reporting what it has been explained in the main text.

FIGURES
• Charts need to be revised for better graphical quality.
• Detailed and clear interpretation in a textual form is missing.
• Add details on units used in the density scale.
• Figure 2 was supposed to be per country. Check if this is the correct figure.
• Figure 6 will look better using the same 1-10 scale (rather than 1-8), in order to be consistent with all the other figures.

REFERENCES
Please ensure your reference system uses the correct feature ‘[1].’ (i.e. the dot should always follow the square brackets).

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

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests