Reviewer's report

Title: Prevalence of Hypertension and Associated Cardiovascular Risk Factors in an Urban Slum in Nairobi, Kenya. A population-based survey

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Reviewer: Andre Pascal A Kengne

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Prevalence of hypertension and associated cardiovascular risk factors in an urban slum in Nairobi, Kenya: A population-based survey

In this manuscript, Joshi and co-workers have screened a large urban community in Nairobi for hypertension and other CVD risk factors, and reported findings mostly corroborating previous reports across Africa showing high and growing prevalence of hypertension in this setting, against a background of low awareness, detection, treatment and control.

Major comments

The manuscript as currently presented is excessively long. Clearly the key message of this paper is about the prevalence rate for hypertension, the detection, treatment and control gaps; their possible determinants and how they connect in the context of the country. Anything else is repetition of what is already know and the time of the readers could be saved by trimming down the paper substantially.

a) The linear regressions to determine the predictor of SBP and DBP levels (Table 9-11) are sincerely adding nothing to the manuscript and should be left out.

b) Similarly, the over-focus on other risk factors in Tables 2, 6, 7 and 9 could be avoided. Univariable and multivariable logistic regressions solve the issue of predictors of hypertension in a single table and should be the preferred approach.

c) A simple narrative report of findings in Table 3 would be enough, while extra columns could be added to table 1 to capture the information in Table 8. Furthermore Table 1 should include the p-values for comparing men and women.

d) Data in Table 4 are often best presented as figures, to better illustrate the changing trend with aging.

e) In the narrative section of the results, the authors should really consider: A) presenting the general profile of the population (including men vs. women comparisons); B) Presenting the BP data including prevalence of hypertension, detection and control; C) investigating the determinants of hypertension. Most of the details currently presented are not helping.

f) In the discussion, the speculation on known facts is useless (paragraph 3 and 4 for instance). What one would like to know is what in the study context explain
the observed pattern of hypertension and how data from this study can be used to address the prevention; and the current manuscript fails by large on those points. For instance there is no discussion of the countries policy on NCDs (including hypertension) and how the current study could relate to existing policy. The authors are encouraged to move beyond a purely epidemiological exercise.

g) Statistical analysis – There no indication of how the authors accounted for the clustering both at the community level and at the household level in their analysis

Minor comments

a) The conclusion of the abstract is not informed by the data in the result section of the abstract

b) Throughout the method section, the authors should give the name and manufacturers of the instruments they used for data collection.

c) In the method section on page 6 (last paragraph), the methods for checking the accuracy of the instruments look strange. One would expect that for weight scale for instance, the investigator should use a weight of known mass, not of a person. The weight of a person can vary significantly across weeks; the BP machines would be checked by comparing values against those of a standard device which is not been used for the survey etc...

d) Please, instead give a link to the STEP instrument online in lieu of submitting it as your study related material, it is not.

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

**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