Reviewer's report

Title: Overweight and obesity in urban Africa: A problem of the rich or the poor?

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Reviewer: Iyeopu M Siminialayi

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1. Minor Essential Revisions

Abstract

In the first sentence of the abstract, under background, the authors state inter alia “….such as cardiovascular disease, hypertension and diabetes type 2.” Diabetes type 2 should be type 2 diabetes mellitus. In the next sentence, “special interest on………” should be “special interest in the differences between urban poor and non-poor.”

Methods

“This paper analysed data from two demographic and health surveys carried out in seven African countries in the early 1990s and early 2000s,” sounds clearer.

Introduction

The authors should consider revising the first sentence as follows: As the developed world grapples with a proportionately higher burden of non-communicable diseases…. Line 10 of the same section “diabetes type 2” should be changed to type 2 diabetes mellitus

2. Major Compulsory Revisions

Results

The result section of the paper does not conform with established standards and is discursive. For instance, the authors state under results; “as expected, overweight/obesity is to a large extent concentrated in urban areas.” This is a conclusion, not a result. In other parts of the results they use phrases like “more likely” and “less likely” which imply an interpretation of the results. They re-state the objectives of the study in this section despite the fact that they had previously stated them in the introduction. The second paragraph of the results sections reads more like results. The authors need to revise this section and restrict themselves to reporting their findings only.

Discussion

The authors say the study also found that young and unmarried women are less likely to be obese as unmarried women because they are less likely to have the means to live a lifestyle that would predispose them to obesity. Why is that? It has to be remembered that the demographic and health surveys on which this
The study is based, took data from women who had had children within the preceding 5 years of the surveys. Single women unlike their married counterparts are less likely to be multiparous and as the authors themselves acknowledge, women of higher parity are more likely to be obese.

The multivariate ordered logistic regression used to analyse the data controlled for age, working status, marital status, parity and country such that the changes in overweight/obesity in the intervening period (“time lapse”) between the two surveys can be directly related to the women’s education and household wealth. There is however a critical factor directly related to the women’s educational attainment or awareness level not mentioned in this study and that is child spacing or the interval between confinements for child birth. If it is agreed that parity is directly related to body weight of women, it follows that the more frequently a woman has children, the more likely to be obese that woman will be. The poorly educated are less likely to be aware of the consequences of poor child spacing and therefore more likely to have shorter intervals between children. They are less likely to use any form of contraception and they are also more likely to have children dying before the age of 5 years and therefore more likely to replace the ones that die. I wonder what were the under-5 mortality statistics like in the countries involved in this study between the two surveys?

The authors also state that overweight/obesity among urban dwellers “is related to the changing nutritional and lifestyle trends, with urban populations consuming more refined and energy-dense foods and having fewer opportunities for physical activities. In this context, the ability of the wealthier class to afford these types of foods, combined with lack of value placed on exercising puts them at greater risk of overweight/obesity.” This seems to contradict their conclusion that overweight/obesity is on the increase among urban populations of sub-Saharan Africa, with a higher pace of increase among the urban poor because, they have given easier access to energy-dense and fat-rich foods by the poor urban dwellers as the reason for the observed trend. The findings in this study are at variance with other studies in Africa, which have demonstrated a strong relationship between obesity and high socioeconomic status. The reason is that unlike in developed countries high-energy (“fast” or “junk”) food is not cheap. The authors have not explained their findings convincingly.

Limitations.

The authors acknowledge that the female populations may not be representative of the entire adult female population, much less adults living in urban areas of sub-Saharan Africa. What is the basis then for the conclusion that “in the near future obesity will take epidemic proportions in developing countries?” They should state that the findings cannot be extrapolated for the foregoing reason.

General Comments

The question posed by the authors is well defined but their methods are not well defined with the result that the findings are confusing. The method adopted by the authors for reporting their results does not conform with established standards. While they have acknowledged some limitations of the study, they have not accepted that their findings cannot have general application because of
these limitations. The title and abstract do not accurately convey what has been found. It is an interesting study, mainly because the findings are at variance with previous studies on overweight/obesity in Africans. However, the authors have not been able to explain their findings convincingly and need to confine their findings to the population sample studied.

**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