Reviewer's report

Title: Prevalence of metabolic syndrome in Murcia Region, a Southern-European Mediterranean area with low cardiovascular risk and high obesity

Version: 1 Date: 11 April 2011

Reviewer: Alaa Alkerwi

Reviewer's report:

The present paper concerns a cross-sectional, population-based study performed in 2003 to assess, from one part, the prevalence of the metabolic syndrome and its components among the resident population of Murcia region, and from the other part, to assess the awareness of studied population to the impact of obesity according to their adherence to dietary and physical activity recommendations.

- Major Compulsory Revisions: The author must respond to these before a decision on publication can be reached.

1) I suggest that the authors reformulate more precisely the second objective and then should demonstrate at the chapter “Results” and “Discussion” that this objective was achieved. In fact, the present statistical analysis is not sufficient to allowing such interpretation and conclusion. The discussion and conclusion are not based on an adequate statistical approach. The authors applied only simple descriptive tables and a graph with out statistical testing.

2) I suggest that the authors need to better justify the interest and the added-values of their research from public health point of view. The data are not really recent to allowing the decision-makers to decide on the light of findings.

3) The authors did not referred to the most recent Joint Interim Statement definition (JIS 2009) of the metabolic syndrome in their analysis (Alberti, etal, Harmonizing the metabolic syndrome: a joint interim statement of the International Diabetes Federation Task Force on Epidemiology and Prevention; National Heart, Lung, and Blood Institute; American Heart Association; World Heart Federation; International Atherosclerosis Society; and International Association for the Study of Obesity. Circulation, 2009). In fact, these recent guidelines stressed the need to adopt ethnic-specific values of waist circumference (WC), to measure the central obesity criterion. I advise reading the recent paper “Prevalence of the metabolic syndrome in Luxembourg according to the Joint Interim Statement definition estimated from the ORISCAV-LUX study, by Alkerwi et al 2011, which gives some insight on the problem of multiple WC cut-off points in Europid population.

4) The authors used the term NCEP-ATPIII; however they applied the Revised ATPIII 2005. This is an important point to be taken in consideration when defining
the metabolic syndrome.

5) The authors need to explain shortly but clearly how the sample was selected (sampling procedure) although it was published elsewhere.

6) The first 2 paragraphs of the discussion are confused and even contradictory. This comment refers particularly to the discussion which should go deeper into the issue of multiplicity of MS Definition, but also to the interpretation concerning the awareness of the population to the impact of the obesity as health problem. In addition to the Results, this part is also starving and needs further discussion.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests'