Reviewer's report

Title: Effect of living area and sports club participation on physical fitness in children: A 4 year longitudinal study

Version: 1 Date: 7 April 2014

Reviewer: Palma Chillón

Reviewer's report:

This manuscript addresses an important public health issue, regarding the effect of living area and the sports club participation in the level of physical fitness among children, during 4 years. The manuscript is clear, well-structured and well written. The topic is quite new in the scientific literature. Some minor might be addressed, to improve the current status of the manuscript. See the comments below.

Minor Essential Revisions:

1. Introduction/Discussion
   - When referring studies focused on the association between rural vs urban population with fitness levels, it is suggested including the study from Chillón et al. (2011) targeted between Spanish children and adolescents (J Sci Med Sport. 2011 Sep;14(5):417-23, Physical fitness in rural and urban children and adolescents from Spain).

2. Results
   - In the 1st paragraph, it seems there are some mistakes regarding the sample size when referring to the participation in sports club (from 4th to 7th lines). It is suggested reviewing it, since 49+17 is a much lower sample size that the sample included in the study (n=172).
     - Figures 1 and 2.
       o Include the legend (i.e., the significance symbols and the meaning of the two different data –white and black triangles or circles-).
       o Include the title.

Level of interest: An article of outstanding merit and interest in its field

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'