Reviewer's report

Title: Cost-utility analysis of a randomized controlled weight loss trial among lactating overweight/obese women

Version: 1
Date: 12 November 2013

Reviewer: Narcis Gusi

Reviewer's report:

The question of the manuscript is well-defined: is cost-effective an effective program the authors published in a previous paper? In addition it is novel and relevant to prevent secondary health problems linked to overweight mothers.

The general methods are adequate but there are several major compulsory points that have to be addressed:

- The current official name of questionnaire EQ-5D is EQ-5D-3L. It means EuroQol-5 dimensions- 3 Levels. This change was done because there is available a new EQ-5D-5L with 5 levels. Please change the name throughout the text. Additionally, as a suggestion, it could be introduced that there is a new EQ-5D-5L questionnaire to face the roof effect and to improve the sensitiveness to change compared to 3L and SF-6D.

- It is required by international consensus to write in the document (not only by references) if QALY was calculated by temporal social-preference (TTO) or other method (VAS, etc.).

- WHO guidelines recommend to include the graphical analysis (cost-acceptability curves) to complement tables.

- L112-115. Related to the management of the inclusion of participants in two groups. There are many references in the scientific literature showing that HRQoL and weight could independently change. Therefore, the reviewer could not see the justification to include in one group exercisers and non-exercisers assuming that the exercise program did not affect HRQoL significantly because there were no changes in other concrete health outcomes presented (weight, amount of steps, etc.). In fact, the type of exercise delivery (e.g., individual/group, supervised/unsupervised) or load (intensity, etc.) could significantly affects HRQoL, especially the dimensions of anxiety/depression, pain/discomfort and daily living activities. It is suggested to think in three groups for the cost-effectiveness analysis.

- L191. In this sense, authors reported that they replaced separately data from exercisers and non-exercisers. Please, ameliorate the writing to avoid apparent inconsistencies and confusions.

- L148. Related to the costs from health system perspective. It seems that there are two relevant costs not included: the displacement of health professionals to the home’s participant, and the costs of phone, etc (Were they included in overheads?)
Table 1. On the other hand, Table 1 include participant’s travel expenses. Were the expenses paid by health system? If not, these expenses fall into the social perspective.

L173-174 and L 220-224. The authors extrapolate data gathered in the intervention to 3 years. It is not clear to reviewer. After the intervention, QALY could increase, remain or decrease. In fact, if there is not a behavioral reinforce health so healthier lifestyle and QALY could decrease. In addition, the used questionnaires reported the current daily perception of HRQoL and it could change by accommodation to a new HRQoL level after a period of time. Reviewer suggest to consider to report the measured effects in 1 year time horizon avoiding complicate assumptions.

Please could you detail how you calculate the total QALY gained. Reviewer has calculated it from data of Table 2 and the result did not coincide with Table 3. Did you performed the area under the curve technique or geometric technique. The result obtained by reviewer is below half of result obtained by authors.

The previous undetailed methods could make that data are not completely sound.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests