Reviewer's report

Title: A comprehensive meta-analysis of co-morbidities related to obesity and overweight

Version: 2 Date: 14 August 2008

Reviewer: John Broom

Reviewer's report:

Major Revisions: there are no major revisions.

Minor Essential Revisions:

1. The authors use only 2 databases to collect published papers in the field and are therefore liable to have missed additional papers in their field. Other databases such as CINHAL, HealthSTAR, AMED, BIOSIS, etc. should also have been addressed. In addition no specific hand-searching of appropriate obesity related journals was carried out again leading to possible missing data. Some explanation as to why there was this restricted search of published work needs to be addressed in the text of the paper. On major systematic review of obesity and its comorbidities is certainly missing from the references, ie. Health Technology Assessment 2004, Vol 8: no 21. by Avenell, A et al.

2. The authors quote the definition of obesity according to WHO for a Caucasian population only. The studies included in this meta-analysis were carried out in "Western Countries", but these countries have significant non-Caucasian populations. Some discussion of this needs to appear since the definition of obesity relative to both BMI and waist circumference differs in these populations.

3. In their comorbidities the authors use the term "heart disease" to include various pathologies not related to or classified as heart disease, ie. pulmonary embolism, stroke, and hyperlipidaemia. The term "heart disease" should be replaced with "cardiovascular disease risk".

4. The term "hyperlipidaemia" is meaningless and is no longer in use. This should be replaced by the term "dyslipidaemia".

5. All of the tables are difficult to follow in their current presentation and impossible for the non-expert in meta-analyses. These tables need further extensive descriptors.

6. There are a number of errors of syntax which need to be checked and corrected and I'm not clear what the authors mean by "post endometrial cancer" on p7. I also find it difficult to believe that no studies relating to dyslipidaemia risk relating to obesity were found.

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 have no competing interests.