Reviewer's report

Title: Olive oil intake and risk of cardiovascular disease and mortality in the PREDIMED Study

Version: 1
Date: 11 March 2014

Reviewer: Linda Tapsell

Reviewer's report:

Minor essential revisions

This is a well written analysis using data from the PREDIMED trial. It is important to consider the study sample more carefully. Not only was the study sample at high CVD risk but it also received healthy dietary advice (both intervention and control). The ability to isolate the effect on health outcomes of a single food (in this case olive oil) is difficult because a range of foods are consumed in the whole diet. The strength of this analysis is that it was able to distinguish effects that could be attributed to olive oil, a food that is clearly at the centre of the Mediterranean diet pattern. It may not have been possible to do if the background dietary patterns were much more variable, as may be the case in non-trial participants. The lack of an association in the control and the presence of an association in both MedDiet groups (EVOO and nut supplemented) seem to confirm this position. So too, the reference to the observational study of the free living Greek population (reference 20). It may be necessary to have better control of the background diet to be able to appreciate the value of individual foods in a dietary pattern. More could be made of this in the discussion.

Other Minor essential revisions

Abstract
2nd sentence: 'the aim is to...'
Methods last sentence: indicate how many measurements were taken and whether these included intake of olive oil.

Methods
Remove 'to' before 'asked'
'The different food items' please clarify if this was just one tablespoon olive oil.
Replace, 'Being ' with 'with'
CVD mortality: clarify use of the word 'lately'.
Statistical analysis: include 'reported' before 'total energy intake'
P13 major 'events'

Discretionary revisions

I am not sure of the value of reporting non-significant associations. Please justify.
Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I have participated in a number of scientific meetings with members of the PREDIMED study and am chairing a scientific program on the Mediterranean Diet which includes speakers from the PREDIMED study.