Reviewer's report

Title: The effects of a controlled worksite environmental intervention on determinants of dietary behavior and self-reported fruit, vegetable and fat intake

Version: Date: 19 May 2006

Reviewer: Isabel Fernandez

Reviewer's report:

General
The topic is of public health significance since scientific evidence is needed on strategies to increase physical activity and improve diet quality. The report on the nutrition intervention piece of the FoodSteps intervention should be published because it provides support to what is ‘not enough to do’ to promote eating behavior change in the worksite. If my comments below are answered satisfactorily, these negative results of the study should be known to the scientific community.

The manuscript is well written and the English is clear.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
My major concerns are methodological/statistical, and regarding the conclusions.

Methodological/statistical:
This is a group-randomized nested design within 2 groups. The study design needs clarification. Was the allocation of the intervention random? It seems that the study was a longitudinal design (surveying the same employees overtime) but it is not mentioned in the manuscript.
The statistical analysis was linear regression but the nested design was not accounted for in the analysis. Employees within worksite may be more similar to each other than between worksites in a way that can influence the results of the intervention. There is a vast literature in group randomized trial that provide a rationale for a mixed model analysis for this kind of design and also estimated of IntraClass Correlation Coefficient for worksites that can be used for power calculations.

Since the n of this study is 2 and there were relatively few employees per group, the manuscript should inform of the statistical power to detect a difference between intervention and control groups.

Conclusions:
The first reason to explain the lack of effect is power. This is not mentioned anywhere in the conclusions and it is the first thing that comes to mind when reading the results.

I totally agree with the author that the intervention was too modest. A lack of intensity of the intervention is obvious. The studies mentioned in the conclusion that did found a positive effect of the intervention had multiple approaches and higher intensity. Also, this project does not seem to have done any prior formative research in terms of the perceptions and believes of the employees with respect to eating behaviors at work. I think this should be mentioned as a limitation of the study. It is mentioned that employees had a good intake of fruits and vegetables at baseline, formative research would have provided imput on strategies to further improve it. Another limitaiton is the absence of process and evaluation. Reported behaviors did not change much but, was there an increase in sales of fruit and vegetables and/or low fat foods in the cafeterias and vending machines.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
Abstract: last sentence is akward.
Background:
First sentence, first paragraph it says 'under employees', should be 'among employees'.
Why BMI less than 23 were excluded?
Results on Fat Intake:
Table 2 is mentioned. It should be table 3.

Discussion:
The authors mentioned that perceived social support increase significantly short and long term. Table 2, however, shows not significant results long term (p = 0.07)

Discretionary Revisions (which the author can choose to ignore)

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

**Quality of written English:** Acceptable

**Statistical review:** Yes

**Declaration of competing interests:**

'I declare that I have no competing interests'