Reviewer’s report

Title: Spending on Vegetable and Fruit Consumption Could Reduce All-Cause Mortality among Older Adults

Version: 1 Date: 14 October 2012

Reviewer: Julie Brimblecombe

Reviewer's report:

Thank you for the opportunity to review this well written and informative paper. This paper is making an important contribution to evidence regarding the role of fruit and vegetable expenditure and mortality.

Major revisions for consideration:

The study hypothesis is clearly presented and addressed by the authors.

The method is clearly presented.

- Although the results explain the consideration of co-variates in the model, I would suggest that the consideration of co-variates is described in the methods section when describing the statistical analysis.

- The methods section also does not describe the derivation of nutrient content from 24 hour dietary recalls. Please see comment below, as I am suggesting that the authors consider this for another paper and remove from this paper.

- In the methods, please indicate if food items were categorized according to nutrient profile or food type.

- I would suggest that the authors consider the description of nutrient content and differences in nutrient profile in relation to fruit and vegetable expenditure as a separate paper as these data do not contribute to answering the hypothesis.

The data are sound and well controlled.

- Clarification is needed on type of diabetes mellitus referring to (type 1 and type 2 or just type 2) and if this was self-reported or clinically diagnosed.

- I think further explanation in the limitations part of the discussion is required on why only one 24 hour dietary recall assessment was made and the implications of this on study findings.

- Similarly I would like to see an explanation on why dietary diversity was not considered as a co-variante or outcome measure in this study based on the evidence cited that expenditure on vegetables and fruits to reduce mortality may be mediated by increasing dietary diversity.

- It is not clear on why the emphasis in the discussion is on vegetables and not fruit as fruit expenditure and vegetable expenditure were both found to be associated with a decreased risk of all-cause mortality. For example, fruit also needs to be included in statement made in discussion (line 176/ line 188/189).
The data for fruit from the HR model needs to be presented in the text (line 150/151). Similarly (line 144) results need to be shown for fruit as shown for vegetables.

- Line 140: A CI of 0.50-1.08 for Q5 for vegetable expenditure suggests that HR not statistically significant.

- As regional differences in pricing were not taken into account, can the authors explain the implications of this in relation to the findings of this study as people in regional/remote areas may be spending more on fruit and vegetables, but consuming less than their counterparts in urban areas or vice versa. Is this study not demonstrating differences in amount (weight) consumed of the different food products (fruit, vegetables, animal derived foods etc) rather than expenditure if pricing of these commodities is a constant across the population? Perhaps information in the discussion on how different prices are of these commodities across the country would help to address this concern.

The authors conclude that consideration of the affordability of fruit and vegetables should improve food security for the elderly population. I believe the findings of this study suggest that considering affordability of fruit and vegetables should improve food security and longevity.

Minor Essential Revisions:

Line 16 – spelling of co-variates
Line 21 – or should be of
Line 61 – delete “a” before 24 hour
Line 61 – on the survey day not in
Line 73 – totally should be “in total”
Line 131 – or who lived alone

Line 165 – inclusion of legumes in this statement seems contradictory as legumes are a food type not an integrated indice of the diet.

Line 178-182 – not completely clear on point being made in relation to study.

Line 212 – use of “for” incorrect
Line 217 – age-group not aged group

Line 140/141: are the authors suggesting that further research in this area is required?

Line 161-171: are the authors suggesting that fruit and vegetable intake may be a marker of dietary diversity?

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