Author’s response to reviews

Title: A lesson in business: cost-effectiveness analysis of a novel financial incentive intervention for increasing physical activity in the workplace.

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Author’s response to reviews: see over

MS: 1180303091058190

Dear Mr. Proel Vargas

Thank you for taking the time to consider our manuscript and to your reviewers for commenting on it. We have taken your comments into consideration and amended the manuscript accordingly.

You will find, below, a discussion of every point with reference to the respective revised sections in our manuscript. We hope you will find the revisions satisfactory and comprehensive. All changes to the previous manuscript have been highlighted in yellow.

It is also important to mention that an extended version of table 1 in our manuscript and additional file 1, have been previously published elsewhere but we have received a license agreement from Copyright Clearance Center to re-use this material.

Dr Mary Dallat
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Editor’s comments:

Comment 1:
Introduction, page 5. Can you spell PAL out in full at the start of the last paragraph of the introduction as this is the first time this abbreviation is used in the main text of the manuscript.

Response:
All abbreviations, including PAL, have been spelt out in full when they are used in the main manuscript for the first time.

Comment 2:
Introduction, page 5. It would be useful to the reader if you can provide a very brief overview/description of the PAL study in the final paragraph of the introduction, and then refer the reader to reference 16 for further details. A little description of the original study here will strengthen the current paper.

Response:
A brief description of the PAL study has been included in the final paragraph of the introduction. See page 5.

Comment 3:
Methods, Outcome measures, page 7. Please delete ‘of’ after ‘comprises’ in the second to last line on this page.

Response:
‘Of’ has been deleted as suggested.

Comment 4:
Methods, cost-effectiveness analysis, page 9. For people unfamiliar with this type of analysis, can you briefly explain what you mean by “no discounting was required since the data was collected over 6 months.” In addition, in this highlighted sentence, please change ‘data was’ to ‘data were’.

Response:
A brief explanation has been included and the grammatical error amended. See page 9, second paragraph.

Comment 5:
Results, Outcomes, page 11. Are the physical activity results supposed to be reported in minutes per day? If so, please insert ‘mins/day’ in the relevant places in this paragraph.

Response:
The physical activity results should be reported in minutes per week. The necessary insertions have been made. See page 11.

Comment 6:
General comment. There are a number of abbreviations used throughout the manuscript, whilst the list of abbreviations is useful at the end of the paper, please spell out each abbreviation in full in the manuscript when it is first mentioned. Abbreviations needing to be spelt out in full include:
Page 5, PAL, CEA and QALYs
Page 7, QOL and EQ-5D
Page 8, ICER
Response:
Each abbreviation, on the relevant pages mentioned above, has been spelt out in full when it is first mentioned in the main manuscript except for EQ-5D which is not an abbreviation and is actually the name of a quality of life questionnaire.

Referee 1’s comments:

Comment 1:
On page 4, paragraph 2, second sentence, I would suggest a comma after 'To date'.

Response:
Amendment made. See page 4.

Comment 2:
I would remove the question mark on page 14, paragraph 3, sentence 1 as this does not need to be a rhetorical question.

Response:
Amendment made. See page 15, line 4.

Referee 2’s comments:

Comment 1:
Page 10: Value of Information Analysis: "We choose a conservative assumption" should read "we chose a conservative assumption."

Response:
Amendment made. See page 11.

Comment 2:
Page 13: Line 2: "notional UK" should read "national UK."

Response:
We would prefer for this to remain as ‘notional’. The UK cost-effectiveness threshold is generally described as ‘notional’ since the National Institute for Health and Clinical Excellence (NICE) has never stipulated exactly what their cost-effectiveness threshold is. It is only by considering the previous interventions they have decided to fund, that the threshold has been assumed to be approximately £20,000-£30,000 per QALY.

Comment 3:
The authors may wish to speculate why cost-effectiveness analysis proved somewhat successful but participant outcomes, in terms of behaviour change (physical activity levels), were not significant.

Response:
See page 13, second paragraph. The following explanation has been added: “...whilst the additional QALYs gained by the Incentive Group was not statistically significant, this difference was enough to offset the additional costs of the Incentive Group as local businesses sponsored the rewards, keeping the additional costs low.”