Reviewer's report

Title: Determinants of adults' intention to vaccinate against pandemic swine flu

Version: 1 Date: 22 June 2010

Reviewer: Eleanor Mann

Reviewer's report:

Please number your comments and divide them into

- Major Compulsory Revisions

Introduction

The rationale for studying non-priority groups is not convincing particularly as the vaccination was never made available to non-priority groups in the UK

- Para 2 & 3: Need to make clear that the swine flu vaccination was not readily available or recommended to non-priority groups.
- Para 4: Justify why research into non-priority groups is warranted

Results

There is a lot that needs to be added to the results section, including a more detailed analysis of demographics and ethnicity outlined in essential minor revisions section. However, I am concerned about the main regression analysis because there is so much information missing, adding it to the report might change the story somewhat:

Results: Intention to have a swine flu vaccination

- What are the trends in the cognitions? Describe means and SDs
- Do all the cognitions correlate with intention and how do the cognitions relate to each other before being entered into a regression model? Add and describe zero-order correlation matrix.
- What happens at each level of the regression model? Do the HBM variables share variance with the TPB variables? Are there any variables that were significant predictors at earlier stages of the model? Add each step of the model to table 1
- In what way do the predictors impact on intention? This needs to be described in text as well as the table particularly as the table suggests counter-intuitive findings. Taking into account the direct of the scales reported in the method, it looks like people with positive attitudes to vaccination and higher perceived control and that agree that the vaccination will reduce visits to GP are less likely
to intend to be vaccinated. These findings would need some explanation.

Discussion
Some of the conclusions are not appropriate interpretations of the results, and when the results are revised the discussion section will need revising in any case.

Discussion para 2: the finding that PC predicted intention where SE did not is not evidence that they are separate constructs, in fact it can be consistent with their being essentially the same construct.

Discussion para 4: the ‘past behaviour’ construct was not past behaviour (getting swine flu vaccination) so it is unsurprising that it did not replicate previous studies of past behaviour.

Discussion para 6: knowledge might only not be a predictor because knowledge is low.

- Minor Essential Revisions

Background para 3: Define pre-pandemic stages

Background para 5: TPB constructs are very specifically defined by Ajzen so the report should reflect that.

- PBC – person’s own subjective perception of whether they can perform the behaviour
- Subjective norm is not just a general social pressure

Background para 6
- Injunctive norms refer to important others not powerful others
- Distinction between PBC and SE is not clear

Background para 7
Can you explain the relevance of mentioning past behaviour and knowledge?

Background para 10
How widely distributed was the vaccination information? The fact that swine flu information was distributed widely is less relevant.

Participants
Given the snowball method of recruitment please compare study demographics with demographics of UK non-priority adults in general.

Measures:
- The outcome measure was a single item which has been shown to be less reliable than multi-item measures; this needs to at least be acknowledged in the
limitations.
• please include all details of all items or include the reference to where they can be found
• SE and PC are very similar and discriminant validity varies between studies so would need to check whether they form two distinct scales in the present study. What’s the Alpha if they are treated as a single scale, for example?
• It is inappropriate to call normal seasonal flu past behaviour. It needs to be renamed to something like seasonal flu past behaviour and seasonal flu intentions?
• Knowledge: define good or poor knowledge, e.g. how many items are needed to get right to be a good score?
• How are the HBM variables chosen? Particularly the barriers and benefits, which are conceptually close to the TPB outcome expectancies and or control beliefs.

Results: knowledge:
Please report the knowledge score (mean SD) as well as individual items.

Ethnicity:
Please compare the 121 reporting ethnicity with the rest of the sample to see whether it is representative

Table 1:
Table 1 shows “less worried” to be significant but “complications” to be ns, is that a typo?

Limitations: need to incorporate the limitations outlined in the report

There are a large number of typographical errors that need to be corrected.

- Discretionary Revisions

Background para 8
What is the aim of including the health belief model? Is it to compare its efficacy in predicting vaccination intentions with that of the TPB or is it to compare findings of previous studies with the present one? Either way I’m not sure the analysis used really does that.

Statistical methods:
It is not clear what the analysis plan was; could that be explained as well as the list of tests?

Results:
• A table of demographics in the results section would also be useful to see.
• It would help to reverse score scales so all constructs ran from low to high.
What next?

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests