Reviewer's report

Title: Using a discrete choice experiment to inform the design of programs to promote colon cancer screening for vulnerable populations in North Carolina

Version: 1 Date: 27 August 2014

Reviewer: Domino Determann

Reviewer's report:

This manuscript on preferences of vulnerable individuals regarding CRC screening programs in North Carolina aims to provide policymakers with information that can be used to design and implement programs to increase the uptake of CRC screening. The manuscript is well written (especially the background and results section) and it is interesting to read that there will be a future studies into effectiveness of interventions to increase screening uptake, that build on the current study. To my opinion, this study is of interest and of importance in its field. However, there are some points that need some further explanation before the decision can be made by the editor to accept or reject the manuscript, especially regarding the selection process of attributes and attribute levels and sample size/the selected study period.

Major Compulsory Revisions

1. Regarding the method section, third and fifth paragraph: As the selection of attributes and attributes levels is a crucial step when conducting a DCE (see e.g. Using qualitative methods for attribute development for discrete choice experiments: issues and recommendations, by Coast et al, 2012 & Developing attributes and levels for discrete choice experiments using qualitative methods, by Coast&Horrocks, 2007), can the authors elaborate a bit more on that process? For example, which ‘previous research’ was used to select attributes? With what type of experts was the attribute selection discussed? Were other attributes considered? Why were they not selected? Why was this range of attribute levels for e.g. travel time chosen?

2. Regarding the method section, third and fifth paragraph: In the introduction of the survey, participants are told that the stool test needs to be done at home with a test kit. In the choice tasks, there are certain options, e.g. in choice task 1, option 2 for which there is travel time for the stool test. And also vice versa, for certain options including a choice of colonoscopy, no travel time is required. This information is contradictory to each other. Isn’t it inherent to a colonoscopy that there is travel time? And was it clear enough to participants that the travel time for a stool test is based on the time to pick up a stool test as was mentioned briefly in the introduction? Can the authors explain this? Did participants of the pre-test had difficulties with this interpretation?

3. Regarding the methods section, paragraph nine: The recruitment took place
between October 23, 2012 and March 23, 2013. Can the authors please explain if there was a minimal number of respondents they wanted to include in the study and that their target was reached after 5 months? Or was these specific period chosen for other reasons? In the method section, I do miss a rationale why this specific sample size / study length was chosen.

4. Regarding the methods section, paragraph eleven (and Table 1. & first paragraph of the result section): the authors speak of ‘sufficient representation within the sample’. On what numbers is this representation based? What is a representative sample in this case? And was the representativeness of the sample successful, i.e. are targets reached?

Minor Essential Revisions

5. Regarding the abstract, second paragraph (methods): It is not immediately clear to me by reading the abstract alone for what enrolled adults should be at average-risk for?

6. Regarding the abstract, last paragraph (conclusions): The authors conclude that the copayments and follow-up care coverage costs are important characteristics, with which I agree based on the data provided in the manuscript. However, the authors only researched preferences in a vulnerable and rural population, therefore, it is, in my opinion not valid to make a conclusions such as the last sentence, ‘particularly… populations’. In order to conclude this, should the DCE not also have been distributed among less vulnerable populations and examine to what extent preferences differ between subgroups?

7. Regarding the background, first paragraph: It is unclear from the text if the numbers of people up to date with screening (based on national surveys) that is being referred to are for CRC screening specific or for all types of screening? Based on the reference, my expectation is that the numbers are for CRC screening.

8. Regarding the background, second paragraph, last sentence: ‘quality improvement’, quality of what?

9. Regarding the methods, first paragraph: As I also pointed out for the abstract. It’s not clear to me what ‘average-risk’ refers to (it is not explained until the paragraph on data-collection). Maybe the authors could remove the last sentence of this paragraph and add the deleted (and not anywhere else mentioned) information to that data-collection paragraph (such as English-speaking?).

10. Regarding the results, no specific paragraph: in the methods sections the authors mentioned that a dominant choice set was included in the survey. However, in the results section there is nothing written about that?


Discretionary Revisions
Regarding the abstract, first paragraph (background): Some more background on why the preferences of specifically vulnerable individuals is researched would be helpful here (only a low number of them is up to date with CRC screening and this information is needed to inform interventions to increase this uptake).

Regarding the background, second paragraph: Maybe it is because I’m from Europe or that I’m not as familiar with CRC screening as the authors, but I was not familiar with ‘Healthy People 2020’. Is it relevant that this target was set by ‘Healthy people 2020’?

Regarding the method section, third and fifth paragraph: An opt-out was included in the study. This was mentioned both in paragraph 5 and 6. The sentence ‘Although not … each choice task’ can be deleted from the 5th paragraph as this add nothing to the selection of attributes and levels.

Regarding the method section, third and fifth paragraph: Regarding portion of the cost of follow-up care people pay. Do participants have any idea about these costs? Or were they provided with a certain range. I can imagine it depends on the level of these costs how important participants value this level.

Regarding the methods section, paragraph eight: It is specifically stated that the survey was pre-tested with individuals in gender-stratified focus groups. What was the reasoning behind this? How were individuals selected? What did the focus groups look like?

Regarding the methods section, paragraph eleven: It is not specifically stated: was the survey computer-based or was it a pen-paper survey?

Minor issues not for publication:

Regarding the abstract, second paragraph (methods): NC I assume is the abbreviation of North Carolina. Consider to put ‘(NC)’ behind North Carolina in the first paragraph.

Regarding the fifth paragraph of the introduction: Why is ‘programs’ underlined?

Reference list: Reference 16 (Sawtooth Software) is incorrect. ‘Software, S’ is not a name.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.