Reviewer's report

Title: The effects of a web-based decision aid on the intention to diagnostic self-testing for cholesterol and diabetes: A randomized controlled trial

Version: 2 Date: 27 February 2014

Reviewer: Catherine Yu

Reviewer's report:

- Major Compulsory Revisions

1) Greater description of HBM: Given that authors report on HBM and focus on interpretation of this data in the discussion, greater detail regarding the relevance of HBM and its measures would aid the reader in the interpretation and contextualization of these findings.

2) Generalizability of study participants: Authors used “Flycatcher” internet panel to recruit participants. How do these panellists compare to the general population?

3) Intervention effectiveness vs efficacy: Authors astutely note in the discussion that actual use and exposure to the internet-based decision aids may be low. Measures of actual decision aid use (e.g. website usage statistics) should be reported to further aid interpretation of study findings.

4) Selection of control: Authors developed a static pdf as a control, to serve as a fair contrast to the interactive decision-aid. With the caveat of not having viewed the intervention nor control (see comment below), is it possible that the contrast is too great, and thus not a fair comparison? For example, might participants learn more from doing a quick internet search than from the very basic static pdf? In addition, other than the distinctive features of the decision aid, are they otherwise equal? E.g. would it take the same amount of time to complete or read through each?

5) Selection of outcome measures: Authors selected theory-based and relevant outcomes, and report good Cronbach alpha. Was a validated scale used? Finally, did this “knowledge” outcome measure differ from the primary outcome measure?

6) Study flow: Participants were assigned to either diabetes or cholesterol arms depending on stated intention, and if intending to do both, they were assigned to the stronger intention, such that 569 participants were assigned to cholesterol arm, and 568 participants were assigned to the diabetes arm. Please include additional information/boxes indicating “intend to do cholesterol self-test n=?”, “intend to do diabetes self-test n=?”, “intend to do both, n=” (last subdivided into “intend to do diabetes self-test more”, “intend to do cholesterol self-test more”)

7) 15-25% dropout rate, with greater drop-out in intervention arms: Was there any difference in intention, socio-demographic characteristics etc of those who
dropped out, compared to those who did not? Should the unbalanced drop-out rate be included as a limitation in the discussion?

8) Adherence to CONSORT checklist: Authors provide an excellent flow diagram. However, greater clarity and detail in reporting is needed, particularly regarding randomization and blinding. Specifically, what method was used to generate random allocation? How was the random allocation sequence implemented? Who generated the random allocation sequence, enrolled participants and assigned interventions? Were investigators or analysts blinded? This could be accomplished through the provision of additional detail in the Methods as well as inclusion of the completed CONSORT checklist as an Online Supplementary Material.

9) Presentation and interpretation of results: I defer comments regarding the analyses to an expert statistician.

- Minor Essential Revisions

10) Description of intervention: The methods section provide a description of the decision aid structure, but may not be sufficient if other investigators were to replicate the study. Additional information regarding the intervention and control (e.g. url in text, screenshots in Online Supplementary Materials) would provide the necessary detail.

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, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests