Reviewer’s report

Title: A Targeted Decision Aid for the Elderly to Decide Whether to Undergo Colorectal Cancer Screening: Development and Results of an Uncontrolled Trial

Version: 2 Date: 6 June 2010

Reviewer: Donald E Nease

Reviewer’s report:

This paper has the goal of describing both the development and pilot testing of a decision aid for colorectal cancer screening, targeted toward the elderly. This is very important work, and the authors are persuasive in their introduction regarding the need for targeted decision aids in this area. However, the challenges in describing both development and pilot testing in a single paper are evident.

Discretionary Revisions: None

Minor Essential Revisions:
1. Page 16, last paragraph: The second sentence needs rephrasing.
2. Figure 1: The questions are not legible for the first 6 items.
3. Table 3: The formatting of the table requires the reader to make comparisons between vertically adjacent numbers, while referring back to the top row for the comparison characteristic. This is extremely difficult, especially given the number of categories with comparisons. Serious consideration should be given to reformatting for clarity.

Major Compulsory Revisions:
1. The authors have chosen to address both knowledge and values in the construction of their decision aid. There is certainly some theory to back up this decision, and this needs to be described in sufficient detail for the reader to be able to follow this design decision and understand its importance. This would also help the reader in understanding the subsequent text.
2. The initial educational messages that underwent formative testing are given, but not the final messages. As the refinement of these in response to interviews were a critical part of developmental process and the formed a core element of the decision aid, these need to be stated.
3. The discussion of the development of the values clarification exercise on page 11 is difficult to follow, particularly the statement of the goal for the process. Again, not having a description of the theoretical underpinning prevents the reader from being able to follow along with your description of the development.
4. The decision to combine the proportions reaching adequate knowledge and values clarification seems very significant, and is really not justified in any way. What led you to do this, and what are the risks and benefits of such a decision for
the results and interpretations?

4. I looked for an analysis of whether change in screening intent was associated with health status or the mortality index, indeed this seems to be the key point. This seems like a major omission.

5. I was also looking for more discussion of the somewhat disappointing 52% responding to the knowledge questions correctly. Perhaps this is the intent of the paragraph beginning at the end of page 16. If so, some discussion of the questions where knowledge stayed low would be helpful. Also, how was accuracy rate calculated? Was this an average of the scores across the group of participants?

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

**Declaration of competing interests:**

I declare that I have no competing interests.