Reviewer's report

Title: Risk Communication Formats for Low Probability Events: A study of patient preferences

Version: 1 Date: 26 October 2007

Reviewer: Joan Austoker

Reviewer's report:

General

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

General

The paper presents an important research question and is a valuable contribution to risk communication for small probabilities. It should be important for decision-aid research and supportive of Analytical Hierarchy Process (AHP) framework. Although the risk presentation format is reported to have been beneficial, the reader is left uncertain as to what impact this will have on informed decision-making in colorectal cancer screening.

Background

This covers the major issues and highlights the importance of conducting studies concerning low probability events.

Methodology

This is generally sound. However, it is important for the authors to state where the presented information concerning the reduction of risk in colorectal cancer was derived (are these percentages based on evidence or are these hypothetical?). It is strange to see the study hypothesis in the statistical analysis section. This should be in the introduction. The study uses previously and successfully employed methodology (AHP). There is some concern that the study may not been able to detect statistically significant differences. The authors need to include some indication whether they had enough subjects to achieve significance.

Results

More information is required in this section. Although difficult, the authors need to be more convincing of their resulting analysis and provide more information on the results of the analysis in some other way than currently presented.

Discussion

This provides a comprehensive overview of the use of risk presentation formats
and how the investigated magnified bar charts and icon displays are acceptable to a small sample of people. However, there is no discussion as to how these visual representations would possibly affect decision-making. This needs to be addressed by the authors.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests.