Author's response to reviews

Title: Can postponement of an adverse outcome be used to present risk reductions to a lay audience? A population survey

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Author's response to reviews:

Iratxe Puebla
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Thank you for your letter of 08-12-2006. We are pleased that we are allowed to resubmit the paper and for constructive criticism. In the following we explain how we have responded to the comments.

Comments from Malcolm Man-Son-Hing

Major compulsory revisions
1. We have added information on the sampling procedure in the methods section.
2. We are unable to describe how persons were determined to be ill or demented because the study was performed by an interview bureau (Gallup Denmark) whose interview manager is now retired. We suppose each interviewer decided whether the individual was suitable for interview or not. Taking into account the low rates of ill or demented interview individuals, this type of non-response is unlikely to have much influence on the final results.
3. Because the interview was made face-to-face (and not through written material), adequate hearing was essential.
4. This study was not a sub-study. The study was designed to address the research questions described in the paper, and no other questions were addressed.
5. We agree that there may be misconceptions in relation to the term "heart attack". Because the study was randomized with a large number of respondents and the groups were well balanced (see Table 1), such misconceptions are likely to be evenly distributed across the groups. They are therefore unlikely to introduce confounding of the results. The term heart attack has been used in several studies conducted within the Odense Risk Group, and has also been used in focus group interviews. On the basis of the large sample size and previous experiences, we consider it unlikely that such misconceptions threaten the validity of the conclusions.
6. We have revised the results section and included confidence intervals and p-values where appropriate.
7. We have commented on the consent rates in the discussion section. As judged from the cost-effectiveness literature for statins (see the papers by for example Johannesson and by van Hout in the reference list), the therapies we "offer" respondents are clearly cost-effective at the price and effectiveness level we present.
9. Household income was omitted from the regression analysis presented in Table 3. The reason was multi-collinearity in that educational attainment and family income are strongly correlated.

Minor essential revisions
1. The list of references is revised (and extended)
2. A period is added
3. Table 1 is revised

Level of interest
It should be noted that family doctors and other clinicians spend considerable time and other resources on
treatment of hypercholesterolaemia, hypertension, osteoporosis and other chronic disease conditions. The results of this study should therefore be of interest to a much wider audience than those who do research in the area of risk communication.

Comments to Elizabeth Murray

Is the question posed by the authors new and well defined?
Apparently, the reviewer and we disagree about fundamental issues related to the concept of risk. Imagine we plan to travel by plane and consider to fly by either company A or B. A has a risk of fatal crash of 1 in 1 million flights while B has a risk of 1 in 10 million flights. We would argue that such information may be useful to the decision irrespective of whether the plane does or does not crash. Also it is important to realize that we are all destined to die and that at best we can only obtain a postponement of death. If we postpone a heart attack for sufficiently long time, we may die from cancer or other illnesses and heart attack has been prevented. Postponement of death is used to some extent in clinical medicine, for instance in cancer care, and our paper may provide useful and interesting information even if some readers have other perspectives on risk than we have.

Are the data sound and well controlled?
We have added a column in Table 1 to provide more information on representativeness. Unfortunately, there is no public information on the distribution of family income. Data on background variables for the individuals originally approached is not available. The data we have indicate that the respondents are fairly representative for the Danish population, but not in all respects. To the extent the sample is not entirely representative, the randomization seems to have worked quite well and does not threaten the internal validity.

We have considered presenting the data in table 2 graphically. This raises the problem of the time scale because the steps used in the study were not increasing linearly. The graphic representation may therefore be misleading. We have therefore decided against graphic representation at this stage, but we may produce one if the editor or reviewers insist.

We have reported in the text that level of understanding does not vary across magnitude of postponement.

The logistic regression presented in Table 3 is quite standard and based on a large sample.

We have changed the discussion to interpret the results more cautiously.

Major compulsory revisions
1. We have changed the title of the paper as suggested
2. We have added information on Christensen's osteoporosis paper and on NNT in the context of lipid lowering drugs.
3. As indicated above, we have revised the discussion and "softened" conclusions about the validity of the findings
4. We have added information on the purpose of the study (which was solely to explore the responses to information on postponement)
5. More information on representativeness is added in Table 1.
6. We decided against presenting data from Table 2 in graphic format due to non-linearity and potential mis-interpretations.
7. The discussion has undergone a major revision.

We hope the paper now is acceptable, but will revise further if you so wish.

Yours sincerely

Rasmus Dahl
MD