Author's response to reviews

Title: Behavioral intentions in response to an influenza pandemic

Authors:

Gerjo Kok (g.kok@maastrichtuniversity.nl)
Ruud Jonkers (r.jonkers@rescon.nl)
Roger Gelissen (r.gelissen@rescon.nl)
Ree Meertens (r.meertens@maastrichtuniversity.nl)
Herman P. Schaalma (g.kok@maastrichtuniversity.nl)
Onno de Zwart (dezwarto@ggd.rotterdam.nl)

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Author's response to reviews: see over
Dear Editors,

On our first draft, we received reviews from Dr. Prateepko and Dr. Kristiansen. Both had a number of questions and suggestions. Dr. Prateepko was quite positive; Dr. Kristiansen was quite critical. We revised the article and explained the revisions in a cover letter.

On our second draft we received only comments from Dr. Kristiansen, saying:
[1] The manuscript has improved in several places, and the English language now seems OK.
[2] The manuscript still lacks a clear focus and some questions of dubious value (e.g. susceptibility to influenza) are still present.
[3] Surprisingly, the authors do not present the full questionnaire. Why?

In our first cover letter we thought we had explained our position on both these issues, however Dr. Kristiansen has not reacted to our explanation.

Mrs. Pafitis requested that we present our arguments within a cover letter alongside the latest version of our manuscript, even if this requires for us to reiterate our original comments.

**About [2]: The manuscript still lacks a clear focus and some questions of dubious value (e.g. susceptibility to influenza) are still present.**

Dr. Kristiansen wrote in his first review: The question “Are you in general susceptible to influenza” does not make sense medically. If it is genetically a new virus, everyone is susceptible. For each of other viruses, everyone is susceptible if they have not had the infection or have had vaccination.

Our answer was: The question “Are you in general susceptible to influenza?” is derived from the meta-analysis conducted by Brewer et al., 2007, and reflects the individual’s perceived constitutional vulnerability to a hazard. However, we agree with the reviewer that this concept is confusing and we have decided to ignore this variable in the paper. The term perceived susceptibility is now used in its original meaning: “How probable is it that you will get influenza ... from a pandemic in the next 12 months?”

It may be clear that we do not understand this second part of Dr. Kristiansen’s remark [2].

Dr. Kristiansen also wrote: Because the questionnaire was so extensive, the authors may do well to omit some aspects to make the paper more focused, or to split it in two independent papers.

Our answer was: We agree that there is a lot of information. We have tried to be more selective in the results section, especially with respect to the scenarios.

We may add that we think the information our paper contributes is relevant for the actual situation and would be very useful for current and future decision making around infectious diseases. In our country, the results have already been quite influential in the process of organizing the mass vaccination of risk groups. Our experience is that decision makers appreciate as much information as possible. We do not see the need for splitting up our paper.
**About [3]** *Surprisingly, the authors do not present the full questionnaire. Why?*

Dr. Kristiansen wrote: A full verbatim version of the questionnaire (preferably in English translation) is missing.

Our answer: *We do not think that this is really necessary. We find it impractical as the questionnaire is tailored and complex. Nonetheless, readers may be interested and can contact us for it. In our experience, no one ever asks for the whole questionnaire, only for specific details.*

We have asked our tailoring expert to comment on this proposal, see the appendix. The conclusion is in short first, that providing the full tailored questionnaire would result in the presentation of a lot of information with very low value to the reader. It would make more sense to select the crucial items from the questionnaire and explain these in the methods section of a paper. Second, that, given the diversity of ways to tailor and languages in which to specify the tailoring conditions, such publications would have to be accompanied by detailed explanations of the logical language and dynamics of the tailoring questionnaire software that was used. For these reasons, it seems advisable to explain the relevant parts of a tailoring questionnaire in the method section of a publication, and let interested readers contact the authors should they desire more details.

Dr. Kristiansen's 2007 article in this field of research reports the results of a non-tailored questionnaire, with eight relatively simple questions. In such a case an appendix with the full questionnaire is useful. We think that in our case it is not. We think we have reported the relevant parts of our tailored questionnaire in the method and results sections.

**In conclusion**, we are of course willing to follow the above mentioned instructions when the editors of BMC Public Health agree with Dr. Kristiansen. However, we would like to argue that these instructions are not helpful.

**Appendix**

**Tailoring**
There are two reasons why it is currently unwise to attach online tailoring questionnaires as appendices to journal articles. Both are a consequence of the underlying architecture of tailoring questionnaires, which I will therefore have to explain to clarify this point. Therefore, this will necessarily become a bit technical.

There are two types of tailoring. First, answers to previous questions can determine whether subsequent questions are shown (either per question, which I will refer to as tailoring, or per group of questions, which I will refer to as macrotailoring). Second, answers to previous questions can determine how subsequent questions are being shown, by altering the words used, replacing entire sentences in the instruction, adding or omitting answer options, and/or changing the form of the question. There exist basically three ways in which a questionnaire can tailor or macrotailor itself. The first one is branching: at some point in the questionnaire, users’ answers are evaluated, and on the basis of the outcome, they ‘branch out’ into different paths. For example, from that point on, women get a different questionnaire from men. The second one is directing: at some point, in the questionnaire, users’ answers are evaluated, and users with a certain outcome are directed to a different point in the questionnaire. The third one is by using conditions: every question is only shown when the evaluation of users’ answers satisfied a certain condition. These three types of tailoring are illustrated in [Figure 1](#).
There exists an abundance of software and websites to create tailoring questionnaires, many paid, some free (such as LimeSurvey, a powerful open source questionnaire server). One of the respects in which these software packages differ, is in the way they handle tailoring. And very importantly to the current issue: not only is tailoring handled different, the language in which the tailoring is specified to the computer system is also always different. Some systems use an advanced language that allows building powerful logical expressions to evaluate answers; others offer more user friendly but much less versatile interfaces where questions and answers can be selected and sometimes combined with AND and OR operators. These systems do however share one characteristic: all tailored questionnaires are much longer than their conventional counterparts (although paradoxically, the users filling out the questionnaire will always be presented with shorter questionnaires than they would have been presented with had they filled out a conventional questionnaire).

This length is the first reason why tailored questionnaires should not be included as appendices. Doing so would result in the presentation of a lot of information with very low value to the reader. It would make more sense to select the crucial items from the questionnaire and explain these in the methods section of a paper. This provides the interested reader with the necessary information, without subjecting them to the overwhelming multitude of questions and logical expressions governing the tailoring.

The lack of uniform agreements about how to report tailoring logic is the second reason why tailored questionnaires should not be included as appendices. Given the diversity of ways to tailor and languages in which to specify the tailoring conditions, such publications would have to be accompanied by detailed explanations of the logical language and dynamics of the tailoring questionnaire software that was used. An additional potential problem here is that parts of this explanation might have to describe elements that are protected by the company exploiting a given tailoring questionnaire system.

For these reasons, it seems advisable to explain the relevant parts of a tailoring questionnaire in the method section of a publication, and let interested readers contact the authors should they desire more details.

**Figure 1: flowcharts illustrating the three types of tailoring**
Branching

Where do you live?
- In the EU
- Elsewhere

Evaluate answer to location

location = Europe
location = Elsewhere

Do you think the EU should extend its borders?
- No
- Maybe
- Yes

Do you feel threatened by the EU?
- Never
- Sometimes
- Regularly
- Always

Directing

Where do you live?
- In the EU
- Elsewhere

Evaluate answer to location

location = EU
everybody else

Do you feel threatened by the EU?
- Never
- Sometimes
- Regularly
- Always

Evaluate answer to location

everybody else

Do you think the EU should extend its borders?
- No
- Maybe
- Yes

Conditional

Where do you live?
- In the EU
- Elsewhere

ONLY SHOW IF: Location = EU

Do you feel threatened by the EU?
- Never
- Sometimes
- Regularly
- Always

ONLY SHOW IF: Location = Elsewhere

Do you think the EU should extend its borders?
- No
- Maybe
- Yes