Reviewer’s report

Title: Perceptions of and Willingness to Engage in Public Health Precautions to Prevent 2009 H1N1 Influenza Transmission

Version: 1  Date: 13 December 2010

Reviewer: James Rubin

Reviewer’s report:

I would congratulate the authors on this study, which I think raises some interesting points. I do have several recommendations to make though, which I hope will help to improve the manuscript.

Major compulsory revisions

1. I have some reservations concerning the two items that were asked relating to willingness to engage in particular behaviours and efficacy of those behaviours. I appreciate that there is little that can be done about the questions at this stage, but I do feel that some further discussion of them is warranted in the Discussion section. My concerns are as follows:

a) The efficacy item asks “Is [x] effective at keeping you and others from getting the flu?” This item is double-barrelled. It is perfectly possible for a behaviour to be effective at preventing others from getting the flu but ineffective at preventing you from getting the flu. For example, covering your nose and mouth when you cough or sneeze prevents or staying at home if you are sick prevent transmission, but will not stop you from catching it yourself. Interpreting this item, particularly for these behaviours, is therefore complicated.

b) The willingness item asks “Would you be willing to [x] to prevent the flu?” This item contains an ambiguity that also makes it double-barrelled – prevent the flu for whom? The question could be interpreted in terms of ‘preventing me from catching flu’ or ‘preventing me from spreading flu.’ Respondents presumably would have the latter in mind when answering about ‘staying home if sick,’ but the former when answering about ‘avoiding close contact with sick people.’ Different factors may motivate behaviours intended to protect oneself compared to behaviours intended to protect others.

2. In the first paragraph of the results section, what was the median number of preventive actions cited by each person? I have a suspicion that the reason that only one behaviour was spontaneously reported by more than 20% was that respondents simply had little incentive to extend the length of the interview or give anything other than an apparently satisfactory one or two responses. Had respondents been offered a dollar for each recommendation they could name, would they have been able to provide a more complete list? Responses to this question do not necessarily imply that “ unprompted knowledge about preventive
actions was…relatively limited” as mentioned in the discussion.

3. The first paragraph of the discussion states that “participants had widely varying interpretations of… recommendations.” However, for the avoidance of sick people recommendation, it strikes me that most of the example interpretations listed in table 2 are pretty much in line with advice. Even some of those listed as “extraneous” actually seem fair (e.g. “just what it says” or “not to catch the germs” doesn’t necessarily reflect poor understanding, just difficulty in re-wording the recommendation). Given that participants could give more than one interpretation, I would be interested to learn what % of participants did not provide any interpretation of the advice that was roughly accurate.

4. In the discussion of why acceptability of various preventive actions might differ (discussion, para 3), I was surprised that no mention was made of difference between the actions in terms of their perceived efficacy. This seems like a very strong finding from the study, and is certainly in line with previous research on this issue (see discretionary revisions for details). In order to improve people’s willingness to engage in a given behaviour, it would seem to be crucial that we reinforce communications relating to the fact that the behaviour is effective. Much greater emphasis on the efficacy of recommended behaviours (e.g. why they work, how we know they work, true life stories showing that they work etc etc) is surely an important implication of this work.

Minor essential revisions

1. The term “personal absolute risk” for the item “how likely are you to get infected with swine flu this fall” is confusing, given that it falls within a broader category of variables that are also referred to as risk. Re-labelling it as “perceived likelihood” would be helpful and in line with the broader literature.

2. For the items relating to perceived efficacy and willingness to perform behaviours, am I right to assume that there were only two possible responses to these items: yes or no? If so, it would be helpful to say this in the methods section.

3. I am not familiar with Newcombe’s method, but I feel it should be mentioned in the analysis section rather in the footnotes for table 3.

4. Table 2 would be easier to read if split into two tables, one for the question relating to what recommendations had been made and one relating to their understanding of ‘avoiding sick people.’

Discretionary revisions

1. The background to the study given in the introduction is well-written and helps the reader to understand why the study was conducted. I did feel that the literature review was a little deficient, however. In particular, I note that in the second to last paragraph of the introduction the authors state that “the extent to which [findings from vaccine uptake studies] extend to other precautionary
behaviours… is not clear."

Several studies have already been published on use of precautionary behaviours by members of the public during the H1N1 pandemic. In the very early stages of the outbreak, my colleagues and I used a nationally representative telephone survey to show that self-reported use of precautionary behaviours (including handwashing and aspects of social distancing) was associated with anxiety about the outbreak, perceptions about the efficacy of the behaviours and perceptions concerning the severity of swine flu or the likelihood of catching it (Rubin et al BMJ 2009;339:b2651). More recently, we have also analysed separate survey data collected by the English Department of Health during the pandemic. Again, these demonstrate strong associations between use of protective behaviours or intended uptake of vaccine, and levels of worry about swine flu and the perceived efficacy of these behaviours. Full details on that study are available at http://www.hta.ac.uk/fullmono/mon1434.pdf#nameddest=article03

Given the similarity between your findings and those reported by our papers, I did feel that some discussion of this might help to support your message. However, I am happy to leave this as a discretionary revision.

2. Your study limitations section has two “final” points.

3. In the final line of the study limitation section, note that being willing to engage in a behaviour is not quite the same thing as intending to do it.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

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