Author's response to reviews

Title: The influenza A (H1N1) pandemic in Reunion Island: knowledge, perceived risk and precautionary behaviour

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Author's response to reviews: see over
Dear M. Harris,

We would like to once again thank the reviewers for the very helpful feedback we have received from them to revise our manuscript entitled ‘The influenza A (H1N1) pandemic in Reunion Island: knowledge, perceived risk and precautionary behaviour’. In this letter we give a point-by-point response (yellow and blue) to the comment (green) of reviewers. The revised manuscript has included all changes made as a result of these comments.

We hope that the manuscript is now suitable for publication in BMC Infectious Diseases.

Yours sincerely,

Please note that all coauthors have approved the new version submitted herewith.
Dear Prof. Bulats

We like to thank you for your sound comments. We have tried to answer as thoroughly as possible to the points that you stressed and we hope that it will suit you.

Sincerely Yours,

FT

Major compulsory revisions

RESULTS

Comment: "description of results are not in consecutive order with tables/figures"

We moved the alinea entitled "Effectiveness of preventive measures" after the alinea "Knowledge of the symptoms and modes of transmission" to follow the description of table 2.1. Now description of all results is in consecutive order with table and figures. Pages 5 & 6

Comment: "1) percentages are described but are not included in table; 2) differences in social demographic variables are described but not included in table. Make clear which data can be found in table and if data are not shown in table mention for example (data not shown) between brackets. Suggestion is to first mention the mean scores, those are given in the table. Then describe percentages and differences in social demographic variables and mention (data are not shown). For all alineas in result section".

Done as suggested for every alinea in the results section. Pages 5 & 6.

Concerning the mention "data not shown" we are totally agree with you. Simply, in order not to overload the text, we have written a footnote with the mention "data not shown" everytime it was necessary in the article

Question: "result description of univariate analyse unclear. 1) higher perceived vulnerability is not included in table 3?"

Answer: Indeed, as described in the method, the perceived severity is now more detailed. On the one hand it was evaluated by scoring and on the other hand by administrating dichotomous questions concerning three aspects: comparison with seasonal influenza; being untreatable; being fatal. Only a score can describe the perceived vulnerability by the question “how likely are you to get infected with influenza A (H1N1)” So, perceived vulnerability is only included in table 2 which contains score.

Question: "result description of univariate analyse unclear. 2) higher response efficacy and higher number of preventive measures regarded as effective is the same, isn't it? what is the difference?"

You are right. In order to be more precise, we have changed the alinea into "The effectiveness of preventive measures (response efficacy) scored 3 (SD 1.57) on a scale of 0 to 6 (Table 2.1) and was higher among those who took precautions (3.1 versus 2.3, p < 0.001) (Table 2.1). This result by score was reinforced by most respondents (82%) (data not shown) who regarded prevention as possible". Page 6, lines 8-12

DISCUSSION

Comment: "in general: still more structuring is needed, to keep readers interest, sometimes difficult to read. Now results, conclusions, recommendations are mixed. Suggestion for improvement is to 1) mention per determinant most important results of the study in 1 sentence; 2) discuss/explain this result".

Done as suggested
Comment: "End the discussion section with limitations & strengths"
Done as suggested. Pages 8 & 9

Comment: "Move all conclusions and recommendations to conclusion section".
Done as suggested. Page 10

Comment: "much repeating of results which are not discussed. Suggestion is to remove the results which are not discussed/explained. For example, 8th alinea: delete sentence 1 and 2 and start alinea with "The vast majority of respondents said.." Delete sentence "transmission through contact is generally.." and "Knowledge of modes of transmission.." To much repeating of results which are not discussed, so can be deleted".
Done as suggested. Pages 6-9

Comment: "-7th alinea: "Even after fine-tuning our analysis", please explain We removed the two sentences.

Comment: "-ALINEA about PMT and HBM: als include perceived efficacy" We have merged all alineas speaking about "perceived efficacy, perceived severity and vulnerability. We have discussed the level of risk perception depending on the period of the study, the composition of our sample and the context of the chikungunya epidemic of 2006. Page 8, second alinea

CONCLUSION
Comment: "-In general: first describe main conclusion as a result of this study; than formulate a couple of recommendations. Only describe conclusions which are a result of this study"
We reformulated the conclusion as suggested, and have made it more concise and adapted to our cross-sectional study. Page 10

Comment: "-1st alinea are not conclusions as a results of this study!"
We deleted the 1st alinea.

Comment: "-2e alinea: "Our findings suggest that people adapt to changes in comm.."changes over time? This study is a crosssectional study and can not identify changes over time". You are right and we deleted the sentence.

Minor essential revisions

BACKGROUND
Comment: "-1st sentence "At the end of April of 2009" should be "At the end of April 2009".
Done. Page 2

Comment: "delete last sentence 1st alinea "The H1N1 virus pandemic was expected."
Done

Comment: "3th and 4th alinea should be integreted in 1 alinea: first start with the 4th alinea "Compliance with preventive measures... to among the general public (18-20)." Than past 3th alinea.”
Done. Page 2

Comment: "4th alinea, 2nd sentence delete "of a range" so "Precautionary behaviour results from a combination of social and psychological factors"
Done. Page 2

METHOD
Comment: "include one sentence about powercalculation. For example, "the sample size was calculated based on estimation's of 30% taking precautionary behaviour, 1% absolute precision and
5% p-value, resulting in an estimated sample size of 474 adults

We Added the sentence as requested. Page 3, first alinea

Comment: "the questionnaire items are now more fully described, but I still recommend to add the survey used (incl. all questions and answers) in an appendix/additional file. Than the questionnaire section could be shortened. For example, it is now not clear how knowledge items were formulated"

The questionnaire includes more than 150 questions. Moreover, this survey was conducted in French and the questionnaire is in French as well which implies a time consuming effort of translation. Considering these constraints we feel it unnecessary to include the full questionnaire in this article even as an an appendix or file.

Concerning the knowledge items, we have now detailed it in the alinea about method. Page 3 (second alinea of "questionnaire")

RESULTS

Comment: "alinea describing results of table 1: first describe percentages included in table 1. Start with 1st sentence "Over one third..", than "Two thirds declared that they had seasonal influenza.." and end with sentence "In the entire sample, one quarter .." Than mention the socio demogr differences. "The youngest respondents.."; "The proportion of individuals.."; "Fewer elderly.." etc and mention (data not shown)"

Done as suggested. Page 3

Comment: "Now data of table 2 are described, than figure 1 and than again table 2. Describe results in consecutive order conform numered tables, so first table 1, table 2, table 3 etc. Effectiveness of preventive measures should be described above figure 1, after knowledge"

Done as suggested. Page 5-6

Comment: " KNOWLEDGE ALINEA: delete sentence "Main symptoms identified .."

Actually, now we have detailed, as suggested by you, in the method (questionnaire) the section concerning knowledge, we think it is better to maintain this sentence about symptoms.

Comment: "Delete sentence "Precautions taken scored 0.6 (SD..)" No added value, all relevant data are included in figure 2"

Precautions taken scored in table 2.1 is a calculated score based on the number of positive responses concerning each precaution. While the figure 2 is only describing the percentage of positive response concerning each precaution taken.

Comment: "PRECAUTIONS TAKEN: "isolation measures, was not widespread" is it more avoidance behavior i.e. social distancing? Than replace isolation measures into avoidence behavior"

Done. Page 6

Comment: "-ALINEA UNIV/MULT RESULTS: mention OR/p-values in accordance with guidelines of BMC public health"

Done

Comment: "-results describing table 3-4: mention factors in order as included in table"

Done

DISCUSSION

Comment: "- alinea 1+2 can be merged. - alinea 3+4 can be merged"

Done as suggested. Pages 6&7

Comment: " - alinea 4 is to long and unclear; regarding social desirability of younger respondents." We have removed one third of this alinea. Page 9 (alinea beginning by "A third limitation…")

Comment: "-mention at limitation alinea, 2e sentence, "This brings into doubts if data are generalizable for the population of RI""

-4-
Done. Page 8, last alinea

Comment: "-alinea about recall bias is unclear"
We have modified this alinea to make it clearer. Page 9 (last alinea beginning by "A second limitation...").

Comment: "-End discussion with strengts and limitation. I.e. our study has a number of limitations; first,.... second...."
Done as suggested. Page 8 & 9

TABLES

TABLE 2
Comment: "-question regarding effectiveness of preventive measures, is that a knowledge question or perceived efficacy?"
You are right and we have created a subcategory called "Effectiveness of preventive measures" (table 2.3). This new subcategory replaces the 2.2 (precautionary behaviour that we have deleted as suggested below). Page 16

Comment: "-use only 1 decimal, so 2.4 in stead of 2.35, also in text"
Actually, we have used 2 decimal as it is usual in the review BMC (for example see BMC Public Health 2011, 11:2)

Comment: "-delete 2.3 (I deleted text in resulted section), no added value"
Done. Page 16

TABLE 3
Comment: "-change p-values <0.005 in "ns""
Even if p-value >0.05 is not significant, we think that used the value of p-value is more precise (for example see BMC Infectious diseases 2010 10:114)

Comment: "-3.3 & 3.4 mention n as also done for the other determinants"
Done. Page 17

TABLE 4
Comment: "-score about the number of preventive measures", the scores/scales are missing
Here"
Done. Page 18

QUALITY OF WRITTEN ENGLISH
Comment:"Quality of written English: acceptable"
Nevertheless, the paper has been reviewed by a native English speaking person.
Revisions requested by Prof. Marc Kiviniemi

Dear Prof. Kiviniemi

We made minor essential revisions as requested. In addition to the corrections you requested, you have above (p. 2-5) a point-by-point response to the comment of the other reviewer.

Sincerely Yours,

FT

Comment: "I will admit to being disappointed that the authors did not choose to address the suggestion to separately examine predictors of each precautionary behavior. I certainly appreciate that doing so involves additional analytic work, but there is potentially valuable information to be mined in looking at separate predictors. My assessment is that the paper as written is a contribution to the literature, but there could be a greater contribution with these additional analyses. I will leave it to the editors' discretion whether such analyses should be included in the article".

Indeed, the proposed analytical model is relevant: conducting separate analyses for each type of precautions while identifying factors associated with each type of precautions. However, we have not opted for this analysis model.

Firstly, our comprehensive study mostly aimed at observing whether respondents had a preventive behavior or not (one or more precautions). The type of precautions only mattered secondarily. And our independent variable was "precaution taken" involving one or more types of precautions.

Secondly, in view of our findings: considering that the types of precautions mostly came down to "washing hands more frequently" and "isolation measures", the rarely reported analyses on "other precautions" (i.e. wearing mask, vaccination ...) may have concern extremely small numbers, thus leading to very broad confidence intervals and a lack of information with subsequent difficulties of interpretation.

Thirdly, this model induces a tree structure analysis that may be complex to interpret as ramifications and precautions taken are equally numbered. And this may explain why it is not widely reported in the literature. This model would have provided too few references to enable comparisons with our results.

Fourthly, at this stage of pre-editing, it was difficult to fully resume the analysis and redesign completely the article in all its components, findings, comparisons/ discussion, conclusion.

Comment: "At the end of the background section, the study is described as a prospective, in population study. This is not accurate -- the study is a cross-sectional study. It is correctly described in the abstract. The description in the background needs to be corrected"

We corrected it. Page 2

Comment: "The report of male/female differences in perceived severity (2nd paragraph under the perceived severity subheading) as confusing. Specifically, the sentence "Among women, perceived severity was significantly higher than among men" seems to refer to the rating of severity, but the numbers presented are percentages ".

We have clarified the results as requested by specifying the two questions respectively giving scores and percentages. Page 5 (last alinea)

Comment: "The only severity measure for which percentages would be appropriate is the yes/no question of whether H1N1 or seasonal flu is more severe. The paragraph should be edited to clarify which results are being reported".

We have clarified two aspects of the perceived severity in this paragraph as follow in the article: "Perceived severity observed by score was reinforced by the dichotomous question ("do you think influenza A is more severe than seasonal influenza?"). Indeed, a majority (58%) perceived influenza A (H1N1) as more severe than seasonal influenza (data not shown)". Page 5 (first part of the alinea "Perceived severity and vulnerability")
QUALITY OF WRITTEN ENGLISH

Comment: "Needs some language corrections before being published"
Comment: "The paper needs to be thoroughly proofread. There were several spelling, wording, and typographic errors in the manuscript"
The paper has been reviewed by a native English speaking person.