Author's response to reviews

Title: Knowledge, Attitudes and Practices KAP related to the Pandemic (H1N1)

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

We would like to resubmit the manuscript entitled “Knowledge, Attitudes and Practices (KAP) related to the Pandemic (H1N1) 2009 among Chinese General Population: a Telephone Survey” (MS: 8671536945255714).

We have addressed, point-by-point, the issues raised by the editor and the reviewers and listed them as follow. The amendments made in the original version of the manuscript are highlighted in blue in the revised version.

We hope you will consider this paper anew in light of the comments on the earlier version.

Thank you for reconsidering this revised version.

Yours sincerely

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Response to editor

Comment 1: Further consideration of your manuscript is conditional on improvement of the English used. Please ensure particular attention is paid to the abstract.
Response: Yes, we totally have realized our limitation in expression by English, and we have tried our best to improve our English expression.

Comment 2: Experimental research that is reported in the manuscript must have been performed with the approval of an appropriate ethics committee. Research carried out on humans must be in compliance with the Helsinki Declaration (http://www.wma.net/en/30publications/10policies/b3/index.html), and any experimental research on animals must follow internationally recognized guidelines. A statement to this effect must appear in the Methods section of the manuscript, including the name of the body which gave approval, with a reference number where appropriate.
Response: Thanks for the suggestion. This study had been approved by the institutional review board of the Tongji Medical College of Huazhong University of Science and Technology and we have added this information (page 8, line 16).

Comment 3: Please can you include a copy of questionnaire used as an additional file.
Response: Thank you for the suggestion. We have submitted an additional file (appendix1) related to the questionnaire and deleted the related content which was not presented clearly in line 20 on page 8.

Response to reviewer Onno de Zwart

Comment 1: The time of the survey starting in November 2009 seems late related to the course of the H1N1 pandemic. No information is given on the course of the pandemic in China. This makes it difficult to interpret the results. Some of the results
may have been influenced by the fact that the survey took place in the aftermath of the pandemic, and knowledge and perception of people probably is different then it was at the height of the epidemic. The authors should clarify how the time of their survey was in relation to the course of the epidemic and explain why they decided to carry out the survey at that time.

**Response:** Thank you for the comment. In China, after the first imported case of A/H1N1 reported on May 11, 2009, the epidemic level was low during the later four months, mainly the imported cases. By the late of October 2009, A/H1N1 cases had increased dramatically, with 44,981 cases and 6 deaths confirmed at the end of October 2009. The A/H1N1 infection rate peaked in November 2009, when approximately 1500 new cases of A/H1N1 influenza were being confirmed each day. So we conducted this study at the end of November 2009. We have added the course of the pandemic in China in Background section (page 4, line 15).

**Comments 2:** Related to the first remark the authors do not give information on whether results differed between the rounds of surveys. Earlier research for example by Lau and also by De Zwart has made clear that such differences may exist. It is not clear whether this was the case in this study.

**Response:** Thank you for the comment. Yes, the level of KAP related to A/H1N1 is different between the rounds of our survey. We have used multiple logistic regression to analyze the data again and found that as times went by, the residents got more knowledge about the main transmission of A/H1N1(OR=1.07, 95%CI 1.02-1.12), less perceived the risk of infection(OR=0.72, 95%CI 0.68-0.76), and less likely to comply with the preventive measures(OR=0.79, 95%CI 0.75-0.84). The results are showed in Table 4.

**Comment 3:** Not enough information is given about the questionnaire. It is not clear how the questions were formulated. This means that it is not clear whether questions on attitude and behavior were time specific or not. It is also not clear whether the questions focused on past behavior (in a specific time) or on intentions for future
behavior. The results presented on page 10 speak about 'the last two weeks' and later about 'would stay away from them', which seem to indicate that questions focused on past behavior and on intentions for future behavior. This needs to be clarified. It would be helpful to include a link to a translated version of the questionnaire or to submit it as part of the manuscript or an appendix.

Response: Thanks for the suggestion. Our questions on attitude and behavior were occurred during the past two weeks of our survey. We have submitted the questionnaire as an additional file.

Comment 4: It is reported that there was a rather low vaccination rate for both seasonal and H1N1 influenza. No information, however, is given on regular vaccination rates for seasonal influenza, nor on vaccination policies (what age group is vaccination for seasonal influenza usually given to). There is also no specific information on the vaccination strategy for H1N1 influenza when did vaccination become available, which age groups were invited for vaccination. Because of the lack of such information data related to vaccination rate are different to interpret.

Response: Thank you for the comment. In China, seasonal influenza vaccination is not included in the national immunization program and must be purchased by recipients. Those who are above 60 years old, the pupil and children in kindergarten and with chronic diseases are recommended inoculation. A data provided by Chinese CDC in 2009 showed that the immunization rate of the seasonal flu in Chinese population was below 2%. The A/H1N1 vaccine was not available in China until the middle of September 2009. All populations at high risk (young children, healthcare workers, and people with chronic disease) above three years old were invited for vaccination free of charge. We have included the information in the discussion section on page 16 and 17.

Comment 5: On page 15 it is stated that women are 'more sensitive to the outbreak due to their physiological characteristics and concern on personal hygiene'. This statement is supported with one reference. I have difficulties interpreting this sentence.
Do the authors mean that morbidity rates for H1N1 influenza for women are higher or do they mean that women have some innate characteristic which influences their attitude? Although many studies have shown that risk perception of women often is higher, there is no single explanation for this certainly not a biological one.

**Response:** Thanks for question. Our explanation for the higher risk perception of women is improper and we don’t adjust for other factors. We have rewritten this section according to the results of multiple logistic regression analysis on page 15 and 16.

**Comments 6:** The authors conclude that 'clear disseminate of perception regarding vaccine' is necessary for higher vaccination rates. For me it is not clear how the authors come to this conclusion based on their data.

**Response:** For Savas’ study showed influenza A/H1N1 vaccination rate of healthcare workers was low (12.7%) in Turkey, we thought the immunization rates of the seasonal flu and H1N1 vaccine in our survey were low (7.5% and 10.8%) as well and we have to promote the vaccination by health education. That is why we make that unclear conclusion. For the better expression, we have revised the related contents and added some conclusions according to the results of multiple logistic regression analysis in Conclusions section on page 18.

**Comment 7:** It would be helpful it the authors would look into the lay out of their tables. They contain much detailed information and when studying them it is not very clear what the significant data in the tables are.

**Response:** Thank you for the suggestion. The tables 3 to 6 have been replaced by the results of logistic regression (table 1 and table 4 now) and tables 2 (table 3 now) has been redesigned.

**Comment 8:** In table 1 there is a mistake in the number and percentage of respondents with an education background of college and above. The correct percentage is given in the text.
Response: Thank you for suggestion. We have corrected this mistake (in table 2 now) and checked the other data again.

Comment 9: The authors speak of a 'wrong attitude'. I would recommend using another word for 'wrong'. Attitudes can be more or less favorable from a public health perspective it does however not mean that certain attitudes are wrong.
Response: Thanks for suggestion. We have replaced ‘wrong attitude’ by ‘negative attitude’ (line4, page 2 and5)

Response to reviewer Michaël Schwarzinger,

Comment 1: The paper of Dr Lin and colleagues describes appropriately the objective, methods, and results of the survey conducted. However, the study provides descriptive data about knowledge, attitudes and practices (KAP) against A/H1N1 2009 influenza-pandemic in China, although the authors could go into their subject in greater depth by use of multivariate analyses.
Response: Thank you for the comment. We have carried out multiple logistic regression analyses with four dependent variables (including knowledge about the main modes of transmission, perception the risk of infection, behaviors of compliance with preventive measures and the A/H1N1 pandemic vaccine uptake) and some explanatory independent variables. A large part of contents including the abstract, data analysis, results and discussion have been revised in the text due to the change method of data analysis.

Comment 2: page 5, first paragraph: reference 9 is not appropriate.
Response: Thanks for suggestion. We have replaced this reference.

Comment 3: page 7, are individuals carrying a cell phone eligible by the sampling method?
Response: Thank you for the question. Our survey was only conducted through family number and individuals carrying a cell phone are not eligible. We have added excluding cell phone in simple size of method section on page 8.

Comment 4: page 14, second paragraph: references 20 to 22 are about “avian” flu, not 2009 “swine” flu, and inferences should be tempered; last paragraph: if pandemic vaccination was free only for priority groups, then coverage is expectedly low in the general population.
Response: Thanks for suggestion. References 20 to 22 have been cancelled and the inferences have been presented again. “if pandemic vaccination was free only for priority groups, then coverage is expectedly low in the general population” has been taken into account in Discussions section on page 17.

Comment 5: page 15, second paragraph: “Female is sensitive to the outbreak due to their physiological characteristics and concern on personal hygiene” seems not an argument supported by evidence; “the high degree of anxiety in the well-educated group…” could be supported by references from the A/H1N1 pandemic abroad.
Response: Thanks for comment. Our explanation for the higher risk perception of women is improper and we have rewritten this section according to the results of multiple logistic regression analysis on page 15 and 16. “the high degree of anxiety in the well-educated group…” has been deleted as we rewrote the section.

Comment 6: Consider replacing “precautionary” by “preventive” measures throughout the text.
Response: Thanks for suggestion. We have replaced “precautionary” by “preventive” measures throughout the text.

Comment 7: The manuscript should be proof-read by a native English speaker. I suggest below some replacements:
Response: Thank you for suggestion. Yes, we totally have realized our limitation in expression by English, and we have tried our best to improve our English expression. We have replaced all the words following the reviewer’s advice.

We list the revised contents as follow:

We list the revised contents as follows:

Title: adding “(KAP)” before “related” and –s to attitude and practice.
Replace “precautionary” by “preventive” measures throughout the text.
Page2, line4: replacing “wrong attitude” by “negative attitudes”;
Page2, line 7: replacing “self-structured” by “close-ended”, line 10, adding “were” before “confused”
Page2, line 13: replacing “inoculation” by “immunization”
Page2, line 14: rewriting the contents after “in residents”
Page4, line 2: changing “H1N1” to “A/H1N1” throughout the text here after;
Page 4, line 9: deleting “the previously” before “healthy young adults”.
Page 4, line 14: deleting “consecutively” before “reported”; line 4, adding “by the end of…” after “China [6].”.
Page4, line 20, replacing “serial” by “a series of”.
Page 5, line1: replacing “medical staff” by “healthcare workers”;
Page 5, line 3, adding “the educational effect of” before “these policies”;
Page 5, line 4, replacing “in” by “among”.
Page 5, line 10, replacing “are” by “were”;
Page 5, line 11, replacing “subsequently promoted” by “contributed to” and adding “of the disease” after “spread”;
Page 5, line 16, replacing “10 thousand” by “10,000”.
Page 6, line 4, replacing “outbreaks” by “similar conditions”.
Page 7, line 5: Changing “Countries” to “countries”.
Page 7, line 14, adding “the” before “pandemic” and deleting “Each phase included two times, once per two weeks”
Page 8, line 2, adding “cell” before “phone”;
Page 8, line 3, replacing “phrase” by “phase”;
Page 8, line 7, deleting “intermittently”.
Page 8, line 9, adding “from 6:30 pm to 10:00 pm to avoid over-presenting the non-work population” after “conducted”;
Page 8, line 13, replacing “prepared” by “designed”;
Page 8, line 16, adding “This study was approved by …” after “skills”;
Page 8, line 19, adding “the” before “knowledge”, “attitude” and “about the” before “practice”.
Page 8, line 22, replacing gathered” by “entered”.
Rewrite the contents after “to compare” in line 1 page 9-10.
Page 11, line 3: replacing “besides” by “except”
Page 11, line 9 replacing “available” by “eligible”;
Page 11, line 12: adding “education” after “school”
Rewrite the contents after “(table 2)” on page 11-13.
Page 14, line 3, replacing “that encouraging” by “to encourage”;
Page 14, line 15: replacing “transmission of” by “via”;
Page 14, line 18, adding “Multivariate analysis results…” after “avian flu”.
Page 15, line 1, replacing “is” by “was”; 
Page 15, line 7: replacing “The public in different regions …” by “There are regional differences …”.
Rewrite the contents after “the open epidemic information” in line 7.
Page 18, Line 10, replacing “The large clear disseminate…” by “There are various associations between KAP…”.
Page 19, line 10: adding “the Master students from” before “Tongji Medical College”, “Ph.D Canqing Yu from” before “Beijing University and”, “Ph.D Hao Xiang from” before “Wuhan University) and”, “Doctor Wei Liu from” before “Xian CDC”.