Author’s response to reviews

Title: Newspaper coverage before and after the HPV vaccination crisis began in Japan: A text mining analysis

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Response to a reviewer

22-November-2018

Dear Dr. Megan Smith

Thank you very much for your review and precious comments. The following is a summary of our revisions in response to your concerns. We have highlighted the revised parts in yellow in the Response to reviewer file and in the revised manuscript file (tracked version, the supplementary material).

We would be grateful if the manuscript would be considered for publication in the BMC Public Health.

Sincerely,
Dear Dr. Megan Smith (Reviewer 2).

There are a few small points that remain - in some cases where the authors provided information in their response, but that information is not yet in the manuscript. These are as follows:

1. The authors have clarified in their response why January 2005 was chosen as the start date - please add this brief explanation to the manuscript.

We added sentences as follows (p 5, the end of the Data collection section).

…The dates of HPV vaccine introduction were 2006 in Australia and Canada; 2007 in France, Germany, Italy, and South Korea etc. We considered that the Japanese newspapers may have reported the events regarding HPV vaccination in those foreign countries. Therefore, we conducted our search from January 2005 to September 2017.

Also, they now clarify in the manuscript text that no articles were identified between January 2005 - June 2009, but then later say the first article was in August 2009 (page 8, line 2). So presumably the text should say no articles between Jan 2005 - July 2009, rather than June 2009.

We revised as follows (p 8, the beginning of the Results section).

…No articles were identified between January 2005 and July 2009.

2. Page 3, line 44: It would be clearer to speak about incidence in this sentence, rather than morbidity. This sentence should be reworded, as it is currently not very clear. Eg "Cervical cancer incidence and mortality have increased in recent years among women in their 20s and 30s." (if the increase is only in these age groups)
We revised the sentence as follows (p 3).

…Cervical cancer incidence and mortality have increased in recent years among women in their 20s and 30s

3. I asked whether authors could tell whether articles presented one-sided views or not; they responded to me that they could not identify whether articles were one-sided or two-sided arguments. This should be included in the paragraph describing limitations.

We added a sentence as follows (p 13).

…Because the present study is a text mining analysis using a software, we could not identify whether each articles were one-sided or two-sided arguments.

4. The authors have provided a helpful example of a previous experience where coverage of influenza vaccine dropped after the community became concerned that it was ineffective. I don’t think that is the same as concerns about vaccine safety, which appear to be the case with the HPV vaccine (even though the concerns are not supported by the evidence). Are there any previous examples of vaccine hesitancy in Japan driven by safety concerns? Or if not, it would be helpful context to note that this is the first one. Either way it is helpful to know whether this has occurred before.

We revised as follows (p 9, the first paragraph of the Discussion section).

…However, number of articles and paragraphs decreased in 2017. This should be noted because it may reflect journalists’ decreasing interest and may indicate the general public will in the near future forget HPV vaccination as a past scandal, despite this is the first case of strong vaccine hesitancy in Japan driven by safety concerns.
5. As the text is searched as kanji/ Japanese characters, could the specific characters searched for be included (eg in an Appendix)?

Japanese newspapers use the Joyo-kanji (i.e., Chinese character in common use), which were defined by the Ministry of Education, Culture, Sports, Science and Technology. Therefore, we did not need to search any specific characters (i.e., Chinese character in uncommon use) when analyzing newspapers.

Also, I have some concerns around some of the new text added to address previous comments:

Abstract, final sentence:

1. This states that various groups should "should cooperate to continue a balanced debate about benefits and risks". The debate should be "evidence-based", or something along similar lines; terminology like "balanced debate" risks encouraging false balance. False balance is particularly known to be an issue in relation to media coverage of vaccines (eg media present "both sides" in the interest of "balance", but this misrepresents that weight of evidence as being equally balanced when it is not).

We revised as follows (p 2, the end of the Abstract).

…The Ministry of Health, Labour and Welfare should discus benefits and risks of the HPV vaccination based on the scientific evidences, and consider to resume the proactive recommendation of HPV vaccination. Well-organized advocacy among medical societies, scientists and health professionals will also be needed to influence the government.

2. In both this sentence and a similar sentence in the Discussion (p9, line 56), the various expert/ stakeholder groups are listed but the government/ MHLW is always last in the list. Wouldn't it be more appropriate for them to be first? The other groups in the lists have already been speaking in favour of the HPV vaccine. It appears that it is the government/ MHLW that needs to change the ways it acts and show leadership (as I gather from the other added text that it did in the case of influenza, by re-including it in the Prevention Vaccination Law again).
3. Again affecting both this sentence and a similar sentence in the Discussion (p9, line 56): I suspect that more than 'cooperation' or 'discussion' is required - it seems likely that the response would need to include well-organised advocacy, vaccine promotion and support, emphasising safety more strongly, robustly responding to misinformation, engaging with community allies - for example as occurred in Ireland [1], and more recently in Denmark.

References


We revised as follows (p12-13, in the Discussion section).

In considering the importance of policy making, it may be helpful to refer a passed stagnation of influenza vaccination for school children in Japan. Under the Preventive Vaccination Law, more than 10 million schoolchildren received influenza vaccine annually from 1976 to 1987, with a peak of 16.5 million vaccines [43]. However, seasonal epidemics continued to occur, which resulted in an anti-vaccination campaign claiming that influenza vaccine was ineffective. Influenza vaccine coverage among schoolchildren declined sharply from about 80% at its peak to 18% in 1992. In 1994, the Preventive Vaccination Law was amended to exclude influenza from the list of target diseases. Influenza vaccine coverage had remained to be quite low until the Preventive Vaccination Law was amended in 2001 to again include influenza. No to make the same mistake as that of influenza vaccination, the Ministry of Health, Labour and Welfare should resume the proactive recommendation of HPV vaccination as soon as possible.

Medical societies, scientists, and health professionals have tried influence the government to a certain degree. For example, the Japan Pediatric Society submitted a written request for resuming the proactive recommendation of HPV vaccination to the Ministry of Health, Labor and Welfare. Additionally, 15 Japanese academic organizations such as the Japan Pediatric Society, Japan Society of Obstetrics and Gynecology, and Japanese Association for Infectious Diseases jointly called for prompt resumption of active vaccine recommendation. Some scientists and health professionals positively have presented their opinions for resuming the proactive recommendation of HPV vaccination on the internet and social media. Despite those effort of experts, the Japanese government has yet to resume endorsement of HPV vaccination as of November 2018. Beyond a mere cooperation and discussion among medical societies, scientists, and health professionals, well-organised advocacy to influence the government for resuming the proactive recommendation of HPV vaccination — emphasizing safety more strongly and
responding robustly to misinformation — will be needed such as an example occurred in Ireland [49].

Discussion, first paragraph:

4. The authors suggest given the decrease in the number of articles and influenza example that the "the general public will in the near future forget HPV vaccination as a past scandal." It does not sound like influenza coverage changed because the public "forgot", but because the government reinstated the active recommendation that influenza was a target disease covered by the Prevention Vaccination Law (lines 46-51), eg: ". Influenza vaccine coverage had remained to be quite low until the Preventive Vaccination Law was amended in 2001 to again include influenza." This is a good example that the authors could point to to show the importance of government action and leadership.

As shown above, we revised and inserted the example of influenza vaccination in page 13.

Discussion, second last paragraph (p13, lines 8-21):

5. The authors state that "the proactive recommendation of HPV vaccination by the Ministry of Health, Labour and Welfare is expected to be resumed as soon as possible". My interpretation is this means the authors believe this is likely to happen soon - is this what they intended to say? If so, I am not sure where does this expectation come from, given the years of inaction by the MHLW, failing to restore proactive recommendation, since their own Vaccine Adverse Reactions Review Committee concluded there was no safety issue, and similar conclusions from the study in Nagoya, international studies, and the WHO's Global Advisory Committee on Vaccine Safety. Were the authors trying to say they thought this is what the MHLW should do, or had a duty to do?

We revised the sentence as follows (p13, the last sentence of the first paragraph).

…No to make the same mistake as that of influenza vaccination, the Ministry of Health, Labour and Welfare should resume the proactive recommendation of HPV vaccination as soon as possible.
6. Again, the second half of this paragraph emphasises the role of expert health and scientific stakeholder groups in influencing the government: "Scientist, health professionals, and medical societies should influence the government more strongly for the resumption of the proactive recommendation of HPV vaccination". But it is my understanding that they have tried. Possibly there is more they could do, but as above the real gap in terms of action seems to be on the part of the government. I am worried this text may not acknowledge what has been done by these stakeholder groups and may sound like it is blaming them for not doing enough, or giving the government an excuse for their inaction. Could this text be adjusted to reflect that these groups have tried already, at least in some ways?

As shown above, we revised as follows (p13, the second paragraph).

Medical societies, scientists, and health professionals have tried influence the government to a certain degree. For example, the Japan Pediatric Society submitted a written request for resuming the proactive recommendation of HPV vaccination to the Ministry of Health, Labor and Welfare. Additionally, 15 Japanese academic organizations such as the Japan Pediatric Society, Japan Society of Obstetrics and Gynecology, and Japanese Association for Infectious Diseases jointly called for prompt resumption of active vaccine recommendation. Some scientists and health professionals positively have presented their opinions for resuming the proactive recommendation of HPV vaccination on the internet and social media. Despite those effort of experts, the Japanese government has yet to resume endorsement of HPV vaccination as of November 2018. Beyond a mere cooperation and discussion among medical societies, scientists, and health professionals, well-organised advocacy to influence the government for resuming the proactive recommendation of HPV vaccination — emphasizing safety more strongly and responding robustly to misinformation — will be needed such as an example occurred in Ireland [49].

We revised the end of the Conclusion section as follows (p 14).

…Well-organized advocacy among medical societies, scientists and health professionals will also be needed to influence the Ministry of Health, Labour and Welfare for resuming the proactive recommendation of HPV vaccination.