Author’s response to reviews

Title: Rubella seroprevalence among pregnant women in Beijing, China

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Author’s response to reviews:

Beijing, 24th Feb 2018

Dear Dr. Spofford,

Thank you very much for your special consideration of our work. We deeply appreciate the thoughtful comments from you.

According to your suggestions, we have revised the manuscript. The submitted manuscript is a clean version at this stage. Therefore, a point-by-point response to the comments has been addressed as following.
We hope this revised manuscript could be evaluated again for publication in BMC Infectious Diseases.

Thank you very much for your consideration.

Best regards,

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Point-by-point response

1. Please duplicate the statement “Written informed consent was obtained from all pregnant women at the time of enrolment for their blood to be used for research on maternal/infant infectious diseases.” into the Ethics approval and consent to participate statement of the Declarations section.

Response: As the editor’s suggestion, we added “Written informed consent was obtained from all pregnant women at the time of enrolment for their blood to be used for research on maternal/infant infectious diseases.” into the Ethics approval and consent to participate statement of the Declarations section (Page 13, line 239-241).

Please represent authors' names using their full initials in the Authors’ Contributions section. If there are any duplicated initials, please differentiate them to make it clear that the initials refer to separate authors.
Response: We have represented the authors' names using their full initials in the Authors’ Contributions section. The author Lijun Li and Li Li have duplicated initials, therefore, we differentiate them by LJL (Lijun Li) and LL (Li Li) (Page 14, line 260-265).

As only summarized data is presented in this manuscript, therefore we ask that you amend the data availability statement. This statement refers to the raw data used in your study and presenting tables and is not sufficient to state that all data is contained within the manuscript and additional files. Please either include all raw data obtained in this study or clearly state that the data is available upon request and who should be contacted if someone wants to request the data.

Response: Thank you for your professional suggestions. As the editor’s suggestion, we added “The raw data will be provided upon request by Yajuan Wang (Correspondence author), Email: cxswyj@vip.sina.com and Kaihu Yao (Correspondence author), Email: yaokaihu@bch.com.cn” into the section of Availability of data and material (Page 13-14, line 247-249).

At this stage, please upload your manuscript as a single, final, clean version that does not contain any tracked changes, comments, highlights, strikethroughs or text in different colours. All relevant tables/figures/additional files should also be clean versions. Figures (and additional files) should remain uploaded as separate files.

Response: Yes. The revised manuscript had not any tracked changes, comments, highlights, strikethroughs or text in different colors.

We have noticed that you have presented similar work as an abstract at a conference:


Please ensure this is cited and acknowledged in your manuscript.

Response: Thank you for your careful suggestions. We have cited the abstract in the second paragraph of Discussion as following:

“……It was similar with our previous investigation with smaller sample size, which revealed 84.5%/83.0% seroprevalence of rubella in 194 paired maternal/cord blood samples [28]. ……” (Page 10, line 173-175)


We note that the current submission contains some textual overlap with other previously published works, in particular:

https://virologyj.biomedcentral.com/articles/10.1186/1743-422X-10-122 (in the Background section)

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0139173 (in the Background section)

http://jcm.asm.org/content/50/2/353.full (in the Discussion section)

While we understand that you may wish to express some of the same ideas contained in these publications, please be aware that we cannot condone the use of text from previously published work.

Please rephrase these sections to minimize overlap.

Response: Thank you for your professional suggestions. To clarify the current status of immunization program for rubella, we cited some previously published works in the Background and Discussion. To avoid the textual overlap, the text the third paragraph in the Background was changed as follows:

“In China, the national immunization program was first established in 1978, however, only 4 basic vaccines against 6 contagious diseases (tuberculosis, diphtheria, neonatal tetanus, whooping cough, poliomyelitis, and measles) was included [11]. In order to control rubella epidemics, two types of rubella vaccine, including a domestic MMR vaccine containing rubella vaccine strain BRDII and an imported MMR vaccine containing rubella vaccine strain RA27/3, were used in several large cities in eastern China since the 1990s [12]. As recipients had to pay for the vaccine by themselves, the rubella vaccine coverage in children was low at that time until 2007. Since 2008, the rubella vaccine was formally introduced to the national Expanded Program on Immunization (vaccine recipients free vaccination) [11], and a two-dose vaccine schedule is administrated to infants at 8 months of age (Measles-Rubella vaccine, MR) and at 18–24 months of age (MMR) [13]. Despite the efforts of vaccination, however, the national rubella and CRS surveillance has not yet been established, little is known about the rubella epidemic rubella
incidence in China. Epidemiological surveillance data from Beijing and Shandong Province of China indicates that the disease burden has shifted to an older age group (15- to 39-year-old individuals) [13, 14]. …… This result indicates that the published figures are underestimates of the actual number of cases occurring in China.”

Was changed to

“The present whole national immunization program was started from 1978 in China. Only four basic vaccines against six contagious diseases (tuberculosis, diphtheria, tetanus, whooping cough, poliomyelitis, and measles) were included [11]. It was not available to get rubella vaccine (the domestic BRDII and imported RA27/3 vaccines) until 1990s [12]. Meanwhile, the rubella vaccine coverage was low because it was included in private sector. The rubella vaccine was added into the national Expanded Program on Immunization of China in 2008 [11], in which the MR (measles-rubella) immunization is administrated at 8 months of age, and a booster immunization with MMR at 18-24 months of age [13]. Despite the efforts of vaccination, the epidemiology of rubella was not be well revealed by the current surveillance system. In Beijing and Shandong Province, a shift of peak incidence of age with rubella from young children to 15-39 year-old group has been found [13, 14]. …… These reports suggested that the published national figures of rubella cases could not reflect the reality of rubella in China.” (Page 4-5, line 70-84)

The text from the first and second paragraph in the Discussion was changed as follows:

“CRS is an important cause of birth defects in countries where rubella is endemic. To control rubella and prevent CRS, the WHO Regional Office for the Western Pacific (WPR) set a target for rubella of less than 10 cases per million populations by 2015 [26].

Since 2005, the WPR formally declared regional measles elimination a goal with a target date set for 2012 [27]. Measles and rubella are similar diseases, both characterized by a rash that may be difficult to differentiate clinically. Therefore, the WHO has decided to include laboratory testing for rubella in the measles surveillance system [12]. During the measles elimination campaign in China, particularly in 2009, the large numbers of suspected measles turn out to be rubella cases [11]. Therefore, it is crucial to eliminate rubella during measles eradication campaigns for China, and then the sentinel CRS surveillance was established in China in 2010-2011. However, national rubella and CRS surveillance has not yet been established. And there is a lack of detailed information on population coverage of rubella vaccine. In fact, both high vaccine coverage and high-quality surveillance are needed for rubella and measles elimination.”
“It is well known that CRS is a frequent cause of birth defects in those countries where rubella is endemic. It was a prominent problem in Asian region. To control rubella and prevent CRS, the WHO Regional Office for the Western Pacific (WPR) set a target for rubella incidence in 2012 year, which was less than 10 cases per million populations by 2015 [26]. Another important reason for preventing and controlling rubella was it has been an obstacle to eliminate measles [11, 27]. Measles and rubella are difficult to differentiate based on clinical symptom to each other in vaccine era. Laboratory testing for rubella, therefore, was recommended to be involved in measles surveillance system [12].” (Page 10, line 162-170)