PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (see an example) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

ARTICLE DETAILS

TITLE (PROVISIONAL)	E-Health Preparedness Assessment in the Context of an Influenza Pandemic: A Qualitative Study in China
AUTHORS	Li, JunHua; Seale, Holly; Ray, Pradeep; Wang, Quanyi; Yang, Peng; Li, Shuang; Zhang, Yi; MacIntyre, Raina

VERSION 1 - REVIEW

REVIEWER	Wong Teck-Yee Family Physician, Consultant Tan Tock Seng Hospital Singapore
REVIEW RETURNED	10-Dec-2012

THE STUDY	Consort checklist is not applicable for this paper.
GENERAL COMMENTS	I would like to raise some questions for you: (1) Phase 1 of study - the questions posed to your participants were mainly on how the surveillance system functioned and the management of data collected. I would assume that the majority of the respondents work at a policy-making level and the impression I got was that the system was working relatively well at the macro level. However, I am curious to know why you did not explore if they felt that there were issues related to the system supporting those doing the actual reporting eg physicians, health workers? Perhaps there was a disconnect in the perception of the entire reporting system between the 2 groups and this could be explored further? (2) Phase 2 I agree with the reasons for choosing the particular hospital for this portion of your study. I also felt that you have identified the relevant areas for deeper discussion with the participants. However, I felt that the discussion centred around issues related to a HIS in general and was not specifically targeted to the context of a pandemic. Was any discussion done with the participants on their personal experience in any pandemic prepardness exercise that they may have had?

REVIEWER	Dr. Richard E. Scott Director, Office of Global e-Health and Strategy Associate Professor, Departments of Community Health Sciences, and Family Medicine University of Calgary, Alberta, Canada No competing interests. Dr, Scott recently acted as an external

	reviewer for the thesis submission of one of the authors (Dr. J. Li).
REVIEW RETURNED	13-Jan-2013

THE STUDY	Question 4 was not answered, as this paper does not reflect interaction with patients. Given the intent of the question, suitable participants were selected. Q 8/9. This is a qualitative study. No statistical analysis is presented. Q12. This is a qualitative study, not an RCT
RESULTS & CONCLUSIONS	P17 l53 to p18 l3-5. I have some concern with this perspective. This may be over stretching the value of their tool and approach. The term 'similar' is used, which can be a cover to justify their suggested extension of the utility of their approach to other e-health solutions such as "E-Health systems such as electronic health records, e-learning, chronic illness management, telecardiology, teleradiology, and teledermatology." In reality I do not believe this to be so. e-Learning and Telehealth applications may need more and different assessment of preparedness as described in other tools in the literature.
REPORTING & ETHICS	Q1, This is a qualitative study, not an RCT
GENERAL COMMENTS	p1, l39. These are not 'outcome' measures. Recommend simply 'Primary and secondary measures' P6 l27. Inclusion criteria. Since e-health can include many solutions for many healthcare needs, it would be helpful to be clear about what type of new e-health solution was being considered. I assume it would have to be a new surveillance system, rather than for example a telediabetes solution! P7 l7. I find it surprising that since they want real life perspective from the H1N1 experience, why accept as an inclusion criteria for the interviews employment at the hospital for just 1 year? I would have thought participants should have been employed for 3-5 years so their experience and comments reflected the period around the pandemic response? The 'status quo' noted must surely be that status quo at the time of, or just prior to, the pandemic response? P l24. Independent back translation would have been a stronger methodology, as the other bilingual investigators who performed the assessment would have bias in their interpretation of responses and perceptions of 'lexical equivalence'. P8 l24. This seems a confusing and lengthy sentence. Recommend splitting it, and making clearer the intended message. P11 section beginning l11. This may be an editing issue, however - bulleting of the subsections would help the reader. P13' l42. I had to read this sentence 3 times before its meaning became clear to me. Perhaps rephrase so the intent is clearer first time. P14 l55. 'Tables' should be singular. P15 l5. Why speak about a 'needs analysis for change'? I understood this paper was about 'organizational preparedness'. Are they the same? Even if yes, why change the terminology which just serves to confuse.

	P16 l49. In contrast, other theories of change point to the primary need for dissatisfaction with what is currently available (mentioned in Table 1). The discussion could have been strengthened by including brief alternate perspectives from Theories of Change models. P17 l53 to p18 l3-5. I have some concern with this perspective. This may be over stretching the value of their tool and approach. The term 'similar' is used, which can be a cover to justify their suggested extension of the utility of their approach to other e-health solutions such as "E-Health systems such as electronic health records, e-learning, chronic illness management, telecardiology, teleradiology, and teledermatology." In reality I do not believe this to be so. e-Learning and Telehealth applications may need more and different assessment of preparedness as described in other tools in the literature.

VERSION 1 – AUTHOR RESPONSE

Comments from Reviewer: Wong Teck-Yee
1. Phase 1 of study
- the questions posed to your participants were mainly on how the surveillance system functioned and the management of data collected. I would assume that the majority of the respondents work at a policy-making level and the impression I got was that the system was working relatively well at the macro level.
However, I am curious to know why you did not explore if they felt that there were issues related to the system supporting those doing the actual reporting eg physicians, health workers? Perhaps there was a disconnect in the perception of the entire reporting system between the 2 groups and this could be explored further?

Response: Phase 1 aimed to examine how the surveillance system functioned, providing background information for the case study. Regarding the reviewer's concern, Phase 2 explored possible reporting issues from the healthcare providers' perspective. The clarification has been added on P6. As discussed at the beginning of the Results section (P13), the section only reports a small subset of the case study results from which major issues were identified in relation to the hospital's preparedness. No major issues were identified related to case reporting at the hospital.

2. Phase 2. I agree with the reasons for choosing the particular hospital for this portion of your study. I also felt that you have identified the relevant areas for deeper discussion with the participants. However, I felt that the discussion centred around issues related to a HIS in general and was not specifically targeted to the context of a pandemic.
Was any discussion done with the participants on their personal experience in any pandemic prepardness exercise that they may have had?

Response: The objective of this study was to test the applicability of an integrated E-Health preparedness framework and assess the preparedness status for the implementation of an E-Health system at the selected hospital in the context of a pandemic response. This has been discussed at the end of the background section. E-Health preparedness "in the context of a pandemic response" is not synonymous with pandemic preparedness. National pandemic preparedness requires the involvement of government at different levels and of people with various specialties (such as policy development, patient care and communication expertise) as well as community involvement to make optimal use of, for example, local knowledge and resources. Therefore, participants' personal experience in any pandemic exercise is out of the scope for this research project.

Comments from Reviewer: Dr. Richard E. Scott

1. p1 39. These are not 'outcome' measures. Recommend simply 'Primary and secondary measures'

Response: We have updated it as Primary and secondary measures.

2. P6 27. Inclusion criteria. Since e-health can include many solutions for many healthcare needs, it would be helpful to be clear about what type of new e-health solution was being considered. I assume it would have to be a new surveillance system, rather than for example a telediabetes solution!

Response: This case study examined five preparedness areas. According to the definition on one of the five areas – motivational preparedness (discussed in the Interview guide), “Motivational forces for change reflect the evaluator’s realisation of problems and healthcare providers’ dissatisfaction with present practices or circumstances for pandemic responses”. “Pandemic responses at the healthcare organisation require its participation in pandemic diseases surveillance and control as well as in the performance of medical practices.” Therefore, the hospital that plans to implement a new e-health system (not necessarily a new e-health surveillance system) could be eligible. However, to be eligible, the hospital must be planning to implement a new E-Health system that can facilitate future pandemic response. This has been added in the section of Sample and site selection. In this study, the hospital was planning to implement an EHR system. This has been mentioned on P12.

3. P7 7. I find it surprising that since they want real life perspective from the H1N1 experience, why accept as an inclusion criteria for the interviews employment at the hospital for just 1 year? I would have thought participants should have been employed for 3-5 years so their experience and comments reflected the period around the pandemic response? The 'status quo' noted must surely be that status quo at the time of, or just prior to, the pandemic response?

Response: We thank the reviewer to point this out. The data were collected between October and December 2010 (see P8). The earliest case of influenza A (H1N1) was confirmed on 23 April 2009 in Mexico, and the WHO subsequently declared on 11 June 2009 the first influenza pandemic of the 21st century. Therefore, to be eligible, participants must have worked at the hospital for a minimum of two years instead of one year. We have updated it on P8. As a matter of fact, before the interviews were conducted, all the participants had been working at the hospital for at least three years.

4. P8. Independent back translation would have been a stronger methodology, as the other bilingual investigators who performed the assessment would have bias in their interpretation of responses and perceptions of 'lexical equivalence'.

Response: We agree with the reviewer regarding the usefulness of having an independent person back translate the transcripts. Unfortunately, as this study was undertaken as part of a PhD, there was no funding available for this process. We have updated the limitations section to acknowledge this point (P19).

5. P8 24. This seems a confusing and lengthy sentence. Recommend splitting it, and making clearer the intended message.

Response: The sentence has been restructured.

6. P11 section beginning l11. This may be an editing issue, however - bulleting of the subsections would help the reader.

Response: We have added bullet points to these subsections.

7. P13 42. I had to read this sentence 3 times before its meaning became clear to me. Perhaps rephrase so the intent is clearer first time.

Response: The sentence has been to be restructured.

8. P14 l55. 'Tables' should be singular.

Response: It has been modified.

9. P15 l5. Why speak about a 'needs analysis for change'? I understood this paper was about 'organizational preparedness'. Are they the same? Even if yes, why change the terminology which just serves to confuse.

Response: 'needs analysis for change' (motivational preparedness) is one of the five explored preparedness areas. This has been highlighted on P17.

10. P16 49. In contrast, other theories of change point to the primary need for dissatisfaction with what is currently available (mentioned in Table 1). The discussion could have been strengthened by including brief alternate perspectives from Theories of Change models.

Response: All these identified issues have been evidenced in the literature to impact on healthcare providers' behaviour change – adoption/acceptance of E-Health. All these relevant theories/sample literature has been briefly discussed and highlighted in the Discussion (e.g., Pp 17, 18 and 19).

11. P17 53 to p18 l3-5. I have some concern with this perspective. This may be over stretching the value of their tool and approach. The term 'similar' is used, which can be a cover to justify their suggested extension of the utility of their approach to other e-health solutions such as "E-Health systems such as electronic health records, e-learning, chronic illness management, telecardiology, teleradiiology, and teledermatology." In reality I do not believe this to be so. e-Learning and Telehealth applications may need more and different assessment of preparedness as described in other tools in the literature.

Response: We have modified the future work at the end of the Conclusions (P20) and now focus on: 1) adaption of the integrated preparedness framework, which we applied in this study, for a range of clinical and public health environments; and 2) testing of its applicability with the research methods that we utilised for our project.