

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Protocol for a Nationwide Survey of Primary Health Care in China: The China PEACE (Patient-centered Evaluative Assessment of Cardiac Events) MPP (Millions Persons Project) Primary Health Care Survey
AUTHORS	Su, Meng; Zhang, Qiuli; Lu, Jiapeng; Li, Xi; Tian, Na; Wang, Yun; Yip, Chi-Man (Winnie); Cheng, Kar Keung; Mensah, George; Horwitz, Ralph; Mossialos, Elias; Krumholz, Harlan; Jiang, Lixin

VERSION 1 - REVIEW

REVIEWER	Ruwei Hu School of public health, Sun Yat-sen University, P.R China
REVIEW RETURNED	14-Mar-2017

GENERAL COMMENTS	The study across 31 provinces in China, still need provincial legislative and regulative documents review and provincial policy analysis to provide system executive environments deference to support the protocol accessment. In China, law and regulation implementation is an initial social determinant on PHC health system reform and PHC legislation.
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REVIEWER	Megan S. Kelley University of Nebraska-Lincoln, USA
REVIEW RETURNED	26-Mar-2017

GENERAL COMMENTS	<p>This is a unique and important study. An extensive formative research process has led to the development of a comprehensive, evidence-based data collection plan to assess the primary health care system in China to systematically identify gaps and needs.</p> <p>Comments:</p> <ul style="list-style-type: none">- Page 1: Readers who are not familiar with the concept of barefoot doctors may benefit from being referred to Appendix 2 in the first paragraph of the paper.- Page 9: It would be appropriate to mention around line 51 that the national and international expert reviewers included 8 of the coauthors on the paper.- Page 14: Ensure that the title listed for Appendix 8 in the text (line 54) matches the title for Appendix 8 on the appendix itself. The title listed in the text seems better.- Page 19: Does your analysis plan include examining differences in (real or perceived) domain outcomes (such as access to care) across the participant roles of organization, provider, and patient?- Page 21: It stands out to me that the outcomes of quality and
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	<p>equity are not addressed in the patient questionnaire, since the perspective of patients on these outcomes is really vital to assessing whether health care is in fact of high quality and equitable. I am curious as to why patient perspectives are not covered in these domains.</p> <ul style="list-style-type: none"> - Overall: Ensure that titles of appendices, tables, and figures are consistent across in-text citations, table of contents listings, and actual titles. <p>A few spelling / wording recommendations:</p> <ul style="list-style-type: none"> - Page 7, line 45-46: Change "identifying" to "identify" and "investigating" to "investigate" - Page 8, line 4: Change "China.," to "China," - Page 9, line 17: Remove underline near "From" - Page 9, line 47: Change "countires" to "countries" - Page 11, line 52: Capitalize "contents" to show it is the title of the appendix. Also consider re-titling Appendix 6 "Contents of complementary documents" - Page 11, line 58: Change "curtain" to "certain" - Page 12, line 29: Change "from last 3 years" to "from the last 3 years" - Page 12, line 32: Change "equipment, medicines" to "equipment, and medicines" - Page 13, line 17: Change "List A and B" to "List A and List B" - Page 14, line 37: The phrase, "meeting the needs of mental health" could be rephrased, "meeting the mental health needs of its population" - Page 14, line 43: Change "national information system of are important" to "National Information System of Psychosis are important" - Page 15, line 31: Change "health data are use to" to "health data are used to" - Page 16, line 28: Remove extra space and period after "uploaded." - Page 16, line 30: Remove comma after "methods" - Page 17, line 37: Change "re-entre" to "re-enter" - Page 18: Remove extra space after "provided" (line 3) and after "identify" (line 37) - Page 22: Recommend changing Table 2 title to "Data elements in the complementary documents" to match the language used in the text. Or change the text to match the language used in the title. - Supp. page 3, line 9: Remove "While" - Supp. page 3, line 19: Change "circumstance" to "circumstances" - Supp. page 3, line 25: Add a space between "for" and "Disease" - Supp. page 4, line 6: Change "specialties" to "specialists", or to "professionals" to match language used in the text. - Supp. page 4, line 29: Wording "to that whose" is awkward. Please revise, perhaps to "to one whose" - Supp. page 25, line 47: Change "Do your" to "Do you" - Supp. page 40, line 52: "[Thank you! Interview is finished.]" Seems odd that this is placed in the middle of the survey. Is the remainder completed by the participant alone? - Supp. page 46, line 46: Change "establish" to "established" - Throughout: should have consistent formatting of in-text references to appendices, figures, and tables
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REVIEWER	Svetlana V. Doubova Mexican Institute of Social Security, Mexico
REVIEW RETURNED	18-Apr-2017

GENERAL COMMENTS	In general, the Protocol for the Nationwide Survey of China's Primary Health Care is comprehensive and well-written. The research question and study objective are clearly defined. The study design is appropriate to answer the research question. The methods are described sufficiently to allow the study to be repeated. The outcomes are clearly defined and the proposed statistics are appropriate. As well as, the research ethics (e.g. participant consent, ethics approval) are addressed appropriately. However, in its current version the protocol lacks the discussion on potential advantages and limitations of the proposed survey; therefore, I would like to suggest including the above-mentioned discussion in the article.
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VERSION 1 – AUTHOR RESPONSE

Reviewer 1:

Reviewer Name: Ruwei Hu

Institution and Country: School of public health, Sun Yat-sen University, P.R China

Please state any competing interests: None declared

Please leave your comments for the authors below

The study across 31 provinces in China, still need provincial legislative and regulative documents review and provincial policy analysis to provide system executive environments difference to support the protocol assessment. In China, law and regulation implementation is an initial social determinant on PHC health system reform and PHC legislation.

Response: Analysing the difference of health policy documents among provinces is one of our main study objectives. For instance, we collected the regional policy documents for health insurance, criteria of assessment of the essential public health service program, and provincial supplementary essential drug list (please see page 13). We will extract the relevant information from the documents and quantify the geographic variations and the impact of the regional policy on PHC services. We have revised the method section to provide better clarity of this study objective (page 11, line 295-296). Here is what we added:

The provincial and regional policy documents will be analysed systematically to quantify the impact of regional policy on PHC services.

Reviewer 2:

Reviewer Name: Megan S. Kelley

Institution and Country: University of Nebraska-Lincoln, USA

Please state any competing interests: None declared.

Please leave your comments for the authors below

This is a unique and important study. An extensive formative research process has led to the development of a comprehensive, evidence-based data collection plan to assess the primary health care system in China to systematically identify gaps and needs.

Comments:

- Page 1: Readers who are not familiar with the concept of barefoot doctors may benefit from being referred to Appendix 2 in the first paragraph of the paper.

Response: Done: page 6, line 101-102. We placed the information in Appendix 1 for further explanation of barefoot doctor. Here is what we added:

Barefoot doctors and groups of villagers and farmers with limited medical training provided most of the healthcare services in rural areas (Appendix 1. China PHC healthcare providers and main responsibilities).

- Page 9: It would be appropriate to mention around line 51 that the national and international expert reviewers included 8 of the coauthors on the paper.

Response: Done: page 9, line 224-225. We specified all authors of this paper also reviewed the questionnaire.

- Page 14: Ensure that the title listed for Appendix 8 in the text (line 54) matches the title for Appendix 8 on the appendix itself. The title listed in the text seems better.

Response: Done: page 14, line 406-407. We have updated the title in the main text and in appendix 8. Here is what we revised:

Appendix 8. Data elements of the anonymised data from the National Information System of Psychosis

- Page 19: Does your analysis plan include examining differences in (real or perceived) domain outcomes (such as access to care) across the participant roles of organization, provider, and patient?

Response: Yes, we will investigate the relationship of the domain outcomes across the participant role. We have revised the analysis plan section to clarify this point (page 18-19, line 540-541). Here is what we added:

We will investigate the key domain outcomes indicators (such as access to care) across institutions, healthcare providers and patients.

- Page 21: It stands out to me that the outcomes of quality and equity are not addressed in the patient questionnaire, since the perspective of patients on these outcomes is really vital to assessing whether health care is in fact of high quality and equitable. I am curious as to why patient perspectives are not covered in these domains.

Response: Many thanks for pointing it out. We do have this information, but neglected to include it in the Table. The patient questionnaire has questions of patients' satisfaction with the PHC service (please see supplementary material: page 42, patient questionnaire Q13, Q14). The patient questionnaire has also the question of type of PHC services that patient could receive and health insurance scheme that patient had. The equity of treatment and access will be further assessed by the patient main characteristics (such as age, sex) and availability of services and accessibility to the services. We have revised the Table 1 in main text (page 22, table 1).

- Overall: Ensure that titles of appendices, tables, and figures are consistent across in-text citations, table of contents listings, and actual titles.

Response: Thanks for noting this issue. We have checked the consistency across the manuscript.

A few spelling / wording recommendations:

- Page 7, line 45-46: Change "identifying" to "identify" and "investigating" to "investigate"

Response: Done: page 7, line 155 and line 156.

- Page 8, line 4: Change "China.," to "China,"

Response: Done: page 8, line 165.

- Page 9, line 17: Remove underline near "From"

Response: Done: page 9, line 205.

- Page 9, line 47: Change "countires" to "countries"

Response: Done: page 9, line 223.

- Page 11, line 52: Capitalize "contents" to show it is the title of the appendix. Also consider re-titling Appendix 6 "Contents of complementary documents"

Response: Done: page 11, line 295.

- Page 11, line 58: Change "curtain" to "certain"

Response: Done: page 11, line 300.

- Page 12, line 29: Change "from last 3 years" to "from the last 3 years"

Response: Done: page 12, line 316.

- Page 12, line 32: Change "equipment, medicines" to "equipment, and medicines"

Response: Done: page 12, line 318.

- Page 13, line 17: Change "List A and B" to "List A and List B"

Response: Done: page 13, line 344.

- Page 14, line 37: The phrase, "meeting the needs of mental health" could be rephrased, "meeting the mental health needs of its population"

Response: Done: page 14, line 387.

Page 14, line 43: Change "national information system of are important" to "National Information System of Psychosis are important"

Response: Done: page 14, line 391-392.

- Page 15, line 31: Change "health data are use to" to "health data are used to"

Response: Done: page 15, line 419.

- Page 16, line 28: Remove extra space and period after "uploaded."

Response: Done: page 16, line 451.

- Page 16, line 30: Remove comma after "methods"

Response: Done: page 16, line 451.

- Page 17, line 37: Change "re-entre" to "re-enter"

Response: Done: page 17, line 486.

- Page 18: Remove extra space after "provided" (line 3) and after "identify" (line 37)

Response: Done: page 17, line 500; page 18, line 523.

- Page 22: Recommend changing Table 2 title to "Data elements in the complementary documents" to match the language used in the text. Or change the text to match the language used in the title.

Response: Done: page 23, table 2. We now use title "Data elements in the objective documents".

- Supp. page 3, line 9: Remove "While"

Response: Done: supp. page 4, line 97.

- Supp. page 3, line 19: Change "circumstance" to "circumstances"

Response: Done: supp. page 4, line 104.

- Supp. page 3, line 25: Add a space between "for" and "Disease"
Response: Done: supp. page 4, line 107.

- Supp. page 4, line 6: Change "specialties" to "specialists", or to "professionals" to match language used in the text.
Response: Done: supp. page 3, line 58. We used "professionals".

- Supp. page 4, line 29: Wording "to that whose" is awkward. Please revise, perhaps to "to one whose"
Response: Done: page 3, line 73.

- Supp. page 25, line 47: Change "Do your" to "Do you"
Response: Done: page 26.

- Supp. page 40, line 52: "[Thank you! Interview is finished.]" Seems odd that this is placed in the middle of the survey. Is the remainder completed by the participant alone?
Response: These sentences will appear when a participant (patient) didn't go to any PHC institution in the last 12 months as the rest of questions are about patient's experience of PHC services.

- Supp. page 46, line 46: Change "establish" to "established"
Response: Done: supp. page 47.

- Throughout: should have consistent formatting of in-text references to appendices, figures, and tables
Response: Many thanks for your helpful suggestion. We have a careful check on whole manuscript.

Reviewer: 3

Reviewer Name: Svetlana V. Doubova

Institution and Country: Mexican Institute of Social Security, Mexico

Please state any competing interests: None declared

Please leave your comments for the authors below

In general, the Protocol for the Nationwide Survey of China's Primary Health Care is comprehensive and well-written. The research question and study objective are clearly defined. The study design is appropriate to answer the research question. The methods are described sufficiently to allow the study to be repeated. The outcomes are clearly defined and the proposed statistics are appropriate. As well as, the research ethics (e.g. participant consent, ethics approval) are addressed appropriately. However, in its current version the protocol lacks the discussion on potential advantages and limitations of the proposed survey; therefore, I would like to suggest including the above-mentioned discussion in the article.

Response: Many thanks for your comments and suggestions. We had added a Discussion section in the main text (page 19-20). Here is what we added:

DISCUSSION

We present the methods of a massive survey and document collection of primary health care in China that is configured to build the foundation for a learning health system. To achieve marked improvements in the effectiveness, efficiency and equity of health care delivery requires a thorough understanding of current performance, an identification of targets for improvement, and a means of linking specific processes with outcomes. Moreover, ideally research into performance and improvement ought to integrate perspectives of practitioners, policymakers and, most importantly,

patients. We have constructed a broad ranging survey, with the input of patients, practitioners and policymakers, and an extensive effort to collect documents that will enable a full picture of contemporary primary care in China to emerge – and to lead to a system of continual improvement. Ultimately the goal is to integrate assessment and learning into everyday practice – and to make performance clear and accountability routine. Moreover, the assessment is designed to lead to policy improvements that promote high-quality, affordable care that best serves patients, the medical workforce, and society.

To our best knowledge, there has been no systematic effort to collect comprehensive and in-depth data to understand the current status of PHC in China since 2009. This study is the most recent nationwide study on PHC in China, providing independent and evidence-based instruments for PHC research. It is likely to have a large sample size as it will assess more than 3,400 PHC institutions, 20,000 healthcare providers, and 35,000 patients in 31 provinces. The data will represent the “real life” of PHC as data are collected in routine primary care. As the local health authorities will facilitate this study, we are likely to have high engagement by respondents and a high response rate. The idea is that the survey will be seen as part of an ongoing collaboration with them to improve care, rather than a singular research project. Furthermore, the study will link with national Census data that allows us to analyze the results in the context of information about local population characteristics. This study will allow researchers to address many important issues of PHC in partnership with key stakeholders, for instance detailed profile of workforce, current situation of rural PHC services and village doctors, availability and affordability of essential drugs, regional variation of health insurance policy.

The study does have some limitations. First, we use self-administered questionnaires to assess the PHC institutions, healthcare providers and patients, which may introduce recall bias and reporting bias. However, we collect objective documents in conjunction with the questionnaires. Meanwhile, we have worked with partners to develop the content and improve the administration of the survey and data collection. In order to improve the understand ability of the self-administered questionnaires, we have tested with groups the wording of the questions to ensure they are interpreted correctly. We also provide the interviewees instructions to explain the questions. Second, the study provides estimates at one point in time. However, the comprehensive and in-depth data of this study can provide thoughtful descriptive analyses of PHC to identify the current achievement and knowledge gaps. Moreover, we do collect documents that provide a perspective on recent history. Third, the study does not collect information about other sectors of the health care system, e.g., hospitals. The focus is on PHC and future efforts can expand data collection to these other sectors.

In conclusion, we describe an effort to create a rich PHC-specific database that will reflect the contemporary pattern of the China's PHC system, provide an opportunity for researchers, in partnership with stakeholders, to characterize and improve PHC in China, and is an important milestone in supporting China's modern healthcare reform efforts.