PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Public satisfaction with the healthcare system in China during 2013-2015: A cross-sectional survey of the associated factors
AUTHORS	Zhang, Jing Hua; peng, xinxin; Liu, Chengkun; Chen, Yijun; Zhang, Hongmin; Iwaloye, Ojo

VERSION 1 – REVIEW

REVIEWER	Dr. Javed GreySys Foundation, Pakistan
REVIEW RETURNED	17-Oct-2019

GENERAL COMMENTS	Overall, it was an interesting study, within the scope of BMJ Open, but can be further improved. I hope my suggestions are helpful for the authors: (1) Please avoid "we" tone, rather, use third party tone. (2) Justify the Design of your study (3) What are the possible reasons of disparities in the public satisfaction of health system in China? (4) "Public satisfaction indicator has several advantages over patient satisfaction measurement. First, it represents a mixture of citizens' personal experiences with the health system and their broader views". How to quantify these "broader views", a fuzzy/grey concept. Can Grey Relational Analysis, or comparable fuzzy approach, compliment your statistical method to better shed light on those relationships? (5) Your statement under "Data analysis and ethical considerations" contains uncertainty associated with data collection process. You wrote, "The main data is from the Chinese General Social Survey (CGSS)". What about other data? Please clearly and EXACTLY mention, what kind of data was collected and from where. If questionnaire was used, plz tell how it was developed, its reliability and validity. (6) A study that revolves around "public satisfaction" states "Patient and public were not involved in the design or planning of this study." Were not you (the authors) the subset of the public? Did you show your research design to any physician? (7) What is OR? What message different values of OR convey? Highlight. (8) Plz report the resultant regression equations. (9) Clearly define the research questions. (10) The paper requires proofreading and editing.

REVIEWER	Kamran B Lankarani Shiraz University of medical sciences/ IR Iran
REVIEW RETURNED	17-Oct-2019

GENERAL COMMENTS	The work is very important and could increase our knowledge on the overall health reform in China . There are several limitations: The health status is self reported . The socioeconomic status is self reported . It was reported in 2015 survey there were more detailed queries. What were they? These new information have been analyzed? There are two different information's: Those with higher education was less satisfied while those with higher self reported SES were more satisfied. These two seems to be not align as in most societies those with higher education have higher SES. The reason mentioned for negative association of satisfaction with higher rates of governmental share might not be complete . It might indicate that the higher governmental shares may have not allocated appropriately for instance they me have been allocated to sophisticated unnecessary equipment's , higher salaries or even corruption . Reporting OR with confidence interval might increase the validity of the observation.

REVIEWER	Zlatko Nikoloski London School of Economics and Political Science
REVIEW RETURNED	13-Jan-2020

GENERAL COMMENTS	I think this is an interesting paper that explores the link between general satisfaction with healthcare and its main correlates and it presents some interesting findings. However, the paper has numerous shortcomings. 1. While the authors in the introduction of the paper clearly state that the paper explores the general population satisfaction with healthcare, I think more time should be spent on comparing and contrasting some the literature; this is particularly important as so much could be understood by looking at general population perception of healthcare vs. perception of healthcare by users (i.e. people who interact with healthcare practitioners); 2. I think the methodology is fairly straight forward, but it raises many questions, than providing answers. For example, a threshold of 70 is selected for the 0-1 coding of the dependent variable. I understand this is arbitrary, but the authors could have made an attempt to at least show some robustness of their findings. There are couple of ways of doing it. First, the authors could have used the standard OLS on an untransformed variable (i.e. the index from 0 to 100) and see if the statistical significance of the main variables of interest remains unchanged. Second, the authors could have increased or lowered this arbitrary boundary of 70, to provide further sensitivity checks to their findings. 3. While most of the variables in the model are the standard ones used, I have quite a few issues with some of them. First, do we have any objective measure of socio-economic standing? This could be, for example, per capita income or per capita consumption. Second, there is an evident multicollinearity in some

	of the variables used in the model. For example, government expenditure on healthcare is a function of the total healthcare expenditure as a share of GDP. Have the authors explored ways of mitigating the impact of multicollinearity in this case? 4. Parts of the paper are extremely poorly written and need to be redrafted.

REVIEWER	Dr Neil Munro University of Glasgow, Scotland
REVIEW RETURNED	24-Jan-2020

GENERAL COMMENTS	This paper presents a rather straightforward analysis of publicly available data on health care system satisfaction in China in two years from the recent decade. For the most part it is competently done. The data is appropriately contextualised. However there are a number of problems with the way the analysis is done. First, converting a 0-100 scale to a dummy variable with an arbitrary cut-off point of 70 destroys a whole lot of information. Satisfaction is a question of degree and not a yes/no answer. The authors cite some prior studies which used a dummy variable but do not explain the decision. Second, more detail is needed about the statistical treatment of aggregate-level variables. Is this a multi-level model? If not, treating aggregate variables as if they were individual-level variables may understate standard errors. Third, if it is a multi-level model, there is still a problem with assuming that the aggregate-level variables have "ecological efffects" on individual attitudes. The data is collected at province-level. Because provinces in China are huge, there is a problem with assuming that everyone within a given province has access to a similar level of health care resources. We don't know if the health resources effects reflect a higher level of health resources available to the individual due to the province they live, or some more general effect associated with the province, such as its level of economic development, or its political climate. More problematically, we know very little about the actual health resources available to the individual within their city or county. The same concern about level of aggregation arises in relation to the macro-regions. More granular statistics are required to be convincing. Fourth, there are difficulties with interpreting the findings. The analysis shows that density of hospital beds is positively associated with satisfaction but density of health workforce is not. (p.11). Surely it is the workforce that delivers health care, not the beds? The interpretation that it is the capacity of local hospitals which generates satisfaction is plausible, but it requires corroboration from some other kind of evidence. The finding that the share of government in healthcare expenditure reduces satisfaction is particularly misleading, since it suggests that the less expenditure the more satisfaction. This ignores the complexity of health care spending in China. It may be that the share of government expenditure is higher in poorer regions where the overall level of public and private expenditure is less.

	In short, the analysis does not strongly support the conclusions. More work is needed to turn this into a convincing account of health care system satisfaction in the period surveyed.

REVIEWER	Jiaying Chen Nanjing Medical University, China
REVIEW RETURNED	03-Feb-2020

GENERAL COMMENTS	The manuscript focused on public satisfaction with health system in China during the health care system reform in 2013-2015. Public satisfaction with health system is one of important topics in health system evaluation. I am not very clear about the meaning of “Rural and geographic variation” in this manuscript. Regarding health system reform in China, there is no strong evidence to show geographic disparities. At least there is no geographic trends in health reform policies in China. Even though the analysis found the differences between different areas (such as east, middle and west, southern and northern, etc.), I think the key and valuable reason should be health policy rather than geography. However, the manuscript didn’t give the reasons for the different satisfaction with health system in China rural-urban or geographically. Without connection with health reform policy, the analysis will be none sense. There are also some misunderstandings and inaccurate introduction to health care system and the new waves of health care reform in China.

VERSION 1 – AUTHOR RESPONSE

Reviewers' Comments to Author:

Reviewer: 1

Reviewer Name: Dr. Javed

Institution and Country: GreySys Foundation, Pakistan

Please state any competing interests or state ‘None declared’: None declared

Overall, it was an interesting study, within the scope of BMJ Open, but can be further improved. I hope my suggestions are helpful for the authors:

(1) Please avoid "we" tone, rather, use third party tone.

Response: We have modified the manuscript into third party tone, as shown in the sections of Independent Variables and Statistical analysis .

(2) Justify the Design of your study

Response: The design of this study is “cross-sectional survey study”. We have indicated the research design in the title of the manuscript too.

As we explained in the section of ***Data source*** (excerpted as below), CGSS data are from cross-sectional survey and prides research opportunities of studying the public satisfaction of health care system in China.

> *"The CGSS aims to collect dynamic information about Chinese residents' life quality. It first included a single question about public satisfaction of health system in 2013, and then in 2015 a set of detailed questions about public satisfaction regarding various aspects of public healthcare provision. The timing of these two surveys matched well with the agenda of the 2nd phase of 2009 Health Reform, thus has provided good opportunities to study how the public satisfactions have changed after the implementation of the reform. These data are the latest available ones containing public satisfaction of the health system in China. This study adopts the combined datasets from the two waves in 2013 and 2015. "*

(3) What are the possible reasons of disparities in the public satisfaction of health system in China?

Response:

As reported in Table 3 and Baseline Analysis section of the manuscript, the regression analysis results in this study has captured the following factors:

Among the demographic and socioeconomic characteristics, being a senior citizen, belonging to Han ethnic group (the majority),in rural area, having health insurance, with lower education level, better health status and higher socioeconomic status are positively associated with reporting higher level of satisfaction.

> Regional disparity in healthcare resources then is the major factor contributing to the satisfaction. Actually, top hospitals and healthcare professionals still concentrate in central cities in China, such as Beijing, Shanghai, Guangzhou and other provincial capital cities. Further ,the improvement of healthcare resources during the study period of 2013-2015 depends on the fiscal status of the local government , or the economic development of a province. Northeastern area of China suffered severe setback of the economy and local government debt issues during 2013-2015, the public satisfaction of health system in that region was also among the lowest level.

The relevant discussion is also included in the ***Discussion section*** of the manuscript, especially, the section with the subtitle of *"Regional variations and changes in 2015"*.

(4) "Public satisfaction indicator has several advantages over patient satisfaction measurement. First, it represents a mixture of citizens' personal experiences with the health system and their broader views". How to quantify these "broader views", a fuzzy/grey concept. Can Grey Relational Analysis, or comparable fuzzy approach, compliment your statistical method to better shed light on those relationships?

Response:

We understand that Grey Relational Analysis (GRA) and a variant of GRA models are very popular in engineering. After reviewing the latest literature, we have learned that Grey Relational Analysis method, as a novel method applied, has been successfully applied to analyze the patients' satisfaction and health care service quality in Pakistan and obtained more quantitative results to better understanding the black box of service satisfaction.

Indeed, we are inspired by these applications and realize that, like patient satisfaction and healthcare quality, the satisfaction of the health system is also a fuzzy/grey concept, hence, GRA actually can also be applied to this topic to better understand the relationship, when the appropriate data required by GRA is available.

Since the current survey questionnaire dataset contains only one general satisfaction score, we don't have sufficient data to perform GRA this time. However, we will seriously consider to adopt GRA in our future study and design the study accordingly.

Meanwhile, the literature below has been very valuable reference for discussing the findings in this study. We are very thankful for the Reviewer's inspirations and have cited these articles (Javed, et al., 2019; Javed and Ilyas,2018; Javed and Liu, 2018) in our revised manuscript. In the LIMITATION section, we now have added:

> *"Grey Relational Analysis method, as a novel quantitative method, can also be applied to obtain more detailed results to better understand the fuzzy/grey concept of satisfaction with the health system [56-57]. "*

Reference

Javed, Saad Ahmed, et al. "Patients' satisfaction and public and private sectors' health care service quality in Pakistan: Application of grey decision analysis approaches." *The International journal of health planning and management* 34.1 (2019): e168-e182.

Javed, Saad Ahmed, and Fatima Ilyas. "Service quality and satisfaction in healthcare sector of Pakistan—the patients' expectations." *International Journal of Health Care Quality Assurance* (2018).

Saad Ahmed Javed, Sifeng Liu, (2018) "Evaluation of outpatient satisfaction and service quality of Pakistani healthcare projects: Application of a novel synthetic Grey Incidence Analysis model", Grey Systems: Theory and Application, https://doi.org/10.1108/GS-04-2018-0018

Pourmadadkar, Mahdad, Mohammad Ali Beheshtinia, and Kamran Ghods. "An integrated approach for healthcare services risk assessment and quality enhancement." *International Journal of Quality & Reliability Management* (2019).

Quartey-Papafio, Tawiah Kwatekwei, Sifeng Liu, and Sara Javed. "Grey relational evaluation of impact and control of malaria in Sub-Saharan Africa." *Grey Systems: Theory and Application* (2019).

(5) Your statement under "Data analysis and ethical considerations" contains uncertainty associated

with data collection process. You wrote, "The main data is from the Chinese General Social Survey (CGSS)". What about other data? Please clearly and EXACTLY mention, what kind of data was collected and from where. If questionnaire was used, plz tell how it was developed, its reliability and validity.

Response: Other data is the public healthcare resource data on province level, including total health expenditure as a percentage of GDP, the government's percentage of total expenditure on health, out-of-pocket percentage of individuals, the densities of the health workforce and hospital beds.

These data are obtained directly from the China Public Health Statistical Yearbook, an government publication. Not from questionnaire. The source of the public healthcare resource data was mentioned briefly in the last paragraph of *Data source* section of the original manuscript. We apologize that we didn't make the manuscript to be reader-friendly enough.

(6) A study that revolves around "public satisfaction" states "Patient and public were not involved in the design or planning of this study." Were not you (the authors) the subset of the public? Did you show your research design to any physician?

Response:

This study only performs statistics analysis using secondary data (Chinese General Social Survey, CGSS), therefore, we did not actually to invite patients or general public to directly participate our study.

The original survey data was collected by the CGSS project. As introduced on its homepage at http://cgss.ruc.edu.cn/index.php?r=index/index&hl=en , CGSS is a national research project sponsored by top social study researchers and statisticians in China. The questionnaire designed and tested by CGSS includes a question about the public satisfaction about the healthcare system in China, which is hence utilized in this study. Hence, the validity of the questionnaires is trusted.

We apologize that our previous manuscript did not make clear explanation regarding this point. Now we have revised "Patient and public involvement" as follows:

> *"In the survey performed by CGSS, the general population in all 31 provinces or municipalities in China were sampled to respond administered questionnaires about their living conditions and social activities. The respondents were informed in written about the aim of the survey and how their privacy and information rights were protected legally. Detailed information can be found in the questionnaire disclosed in the database.*
>
> *No patients were directly involved in this study. No experimental designs were involved."*

We discussed with physicians and government officials of public healthcare administration in China about their viewpoint of the public satisfaction about the health care system in China. We also discussed with them about the analysis results in this study.

(7) What is OR? What message different values of OR convey? Highlight.

Response:

OR means “Odds ratio”, which is widely adopted in epidemiologic analysis and health-related studies.

“An odds ratio (OR) is a measure of association between an exposure and an outcome. The OR represents the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure.

Odds ratios are used to compare the relative odds of the occurrence of the outcome of interest (e.g. disease or disorder), given exposure to the variable of interest (e.g. health characteristic, aspect of medical history). The odds ratio can also be used to determine whether a particular exposure is a risk factor for a particular outcome, and to compare the magnitude of various risk factors for that outcome. “

OR=1 Exposure does not affect odds of outcome

OR>1 Exposure associated with higher odds of outcome

OR<1 Exposure associated with lower odds of outcome “

“The key to epidemiologic analysis is comparison. Occasionally you might observe an incidence rate among a population that seems high and wonder whether it is actually higher than what should be expected based on, say, the incidence rates in other communities. Or, you might observe that, among a group of case-patients in an outbreak, several report having eaten at a particular restaurant. Is the restaurant just a popular one, or have more case-patients eaten there than would be expected? The way to address that concern is by comparing the observed group with another group that represents the expected level.”

Reference:

Szumilas, Magdalena. "Explaining odds ratios." *Journal of the Canadian academy of child and adolescent psychiatry* 19.3 (2010): 227. (available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2938757/)

Principles of Epidemiology in Public Health Practice, Third Edition ,An Introduction to Applied Epidemiology and Biostatistics, Section 5: Measures of Association (available at https://www.cdc.gov/csels/dsepd/ss1978/lesson3/section5.html)

(8) Plz report the resultant regression equations.

Response:

In the “Statistical analysis” section of the manuscript, we actually reported the regression model applied and the variables included in this study. Here we quote as below for the reference.

"Statistical analysis

The baseline model is a multivariate logistic regression model, analyzing the major factors associated with Chinese residents' satisfaction of the health system. The dependent variable was the dummy variable of "being satisfied" with the health system. The independent variables included all individual and provincial level variables as introduced in Measures section."

For the purpose of concise and effective communication, as a standard practice, peer articles in the field of public health do not report the regression model in the form of equations, if the statistics analysis method is a standard one. The multivariate logistic regression model we applied is a standard model applied in public health policy study.

(9) Clearly define the research questions.

Response:

As far as we know, in social science, economics and business management, as a standard, the research methodology requires to state the "research questions". Meanwhile, we have noticed that the research papers in the field of public health focus on "research objective" or "research purpose", which equates to the "research question/hypothesis".

We report the research objectives of this study in the last paragraph of the Introduction section of the manuscript. We quote as below:

"Specifically, the objectives of this study are: (1) to explore the basic factors (demographic, socioeconomic and public healthcare resources) associated with the public satisfaction of the health system in China; (2) to examine how the public satisfaction of the health system differs between the urban and rural residents, as well as the major geographic variations in China; (3) to examine changes in the public satisfaction of the health system between 2013 and 2015. "

(10) The paper requires proofreading and editing.

Response:

We have invited an English native-speaker scholar to help to proofreading this manuscript.

Again, many sincere thanks for your positive appraisal of our work. Your feedback and suggestions with excellent academic insights are sincerely appreciated and highly valued. We are hopeful that our detailed response and extensive rewrites have addressed your concerns. Meanwhile, we remain open to any further comments on the revised manuscript.

Reviewer: 2

Reviewer Name: Kamran B Lankarani

Institution and Country: Shiraz University of medical sciences/ IR Iran

Please state any competing interests or state 'None declared': None declared

The work is very important and could increase our knowledge on the overall health reform in China .

There are several limitations:

1) The health status is self reported .

Response:

Indeed, clinical examination is the gold standard for health status measurement. However, since clinical examination requires large resources, self-reported health (SRH) measures have been developed and tested in diverse scenarios with results suggesting that it is a valid proxy for current health and a reliable predictor of future health outcomes in populations (Miilunpalo *et al.*, 1997; Drieling *et al.*, 2016; Tsuruda *et al.*, 2018).

Some limitations of SRH measurement have been reported too. First, satisfaction of the healthcare system may be related with self-reported health status. People who report poor health are less likely to report being satisfied than those who report good health (Wendt, 2010; Munro and Duckett, 2016). Second, that there are regional differences in self-reported health among the elderly in China (Mu, 2014) .

SRH indicator has been considered as being generally effective and widely used in health-related studies in China and (Lin *et al.*, 2016; Xue , Mo & Reed, 2016; Munro and Duckett, 2016; Zang *et al.*, 2018; Su *et al.*, 2019).

After evaluating the facts reported in literature as discussed above, we consider SRH is still a valid proxy of health measurement, though not as good as clinical measurements. The regression model in this study includes region/province variable to control the potential regional disparities. We also claim the limitation of SRH in this study.

Reference

Miilunpalo S, Vuori I, Oja P, Pasanen M, Urponen H. Self-rated health status as a health measure: the predictive value of self-reported health status on the use of physician services and on mortality in the working-age population. J Clin Epidemiol. 1997;50: 517-528.

Drieling, R. L., LaCroix, A. Z., Beresford, S. A., Boudreau, D. M., Kooperberg, C., & Heckbert, S. R. (2016). Validity of self-reported medication use compared with pharmacy Records in a Cohort of older women: findings from the Women's Health Initiative. *American journal of epidemiology*, *184*(3), 233-238.

Munro N, Duckett J. Explaining public satisfaction with health-care systems:

findings from a nationwide survey in China, Health Expectations 2016;19:654-66.

Mu, R. (2014). Regional disparities in self-reported health: Evidence from Chinese older adults. *Health economics*, *23*(5), 529-549.

Tsuruda, K. M., Sagstad, S., Sebuødegård, S., & Hofvind, S. (2018). Validity and reliability of self-reported health indicators among women attending organized mammographic screening. *Scandinavian journal of public health*, *46*(7), 744-751.

Lin, Y., Zhang, Q., Chen, W., Shi, J., Han, S., Song, X., ... & Ling, L. (2016). Association between social integration and health among internal migrants in ZhongShan, China. *PloS one*, *11*(2).

Su, H., Wang, L., Li, Y., Yu, H., & Zhang, J. (2019). The mediating and moderating roles of self-acceptance and self-reported health in the relationship between self-worth and subjective well-being among elderly Chinese rural empty-nester: An observational study. *Medicine*, *98*(28).

Xue X, Mo E, Reed WR. The relationship between social capital and self-reported health in China. Economics: The Open-Access, Open-Assessment E-Journal. 2016;10: 1-44.

Zang, J., Guo, C., Wang, Z., Cheng, Y., Jin, W., Zhu, Z., ... & He, X. (2018). Is adherence to the Chinese Dietary Guidelines associated with better self-reported health?: The Chinese dietary guidelines adherence score. *Asia Pacific journal of clinical nutrition*, *27*(4), 914.

Wendt C, Kohl J, Mischke M, Pfeifer M. How do Europeans perceive their healthcare system patterns of satisfaction and preference for state involvement in the field of healthcare. European Sociological Review., 2010; 26: 177–192.

2) The socioeconomic status is self reported .

Response: we admit that it is a limitation of the data that we have only the self-reported (subjective) socioeconomic status available. The survey questionnaire has a question asking about the income of a respondent, however, there is only a very small number of responses.

3) It was reported in 2015 survey there were more detailed queries. What were they? These new information have been analyzed?

Response:

In 2013 survey, there was only one general question about the public satisfaction. 'Taking all aspects into consideration, how is your general satisfaction in the healthcare system?'

In 2015 survey, apart from this general question, a respondent was asked to evaluate various aspects of the healthcare system in a systematic way, including questions regarding healthcare access, vaccination availability, pharmacy management, maternal-infant healthcare program and so on. Some peer Chinese literature utilized the information in 2015 survey to study the inequalities of satisfaction among the subcategories, as well as how these factors contributing to the general satisfaction .

4) There are two different information's: Those with higher education was less satisfied while those with higher self reported SES were more satisfied. These two seems to be not align as in most societies those with higher education have higher SES.

Response:

It is true that higher education and higher self-reported SES are generally positively associated in developed countries or countries with lower level of social mobility. However, during the past three decades in China, the fast growth of the economy in China is a market-oriented type and many new-riches are entrepreneurs, who were good at taking risks in the market economy, but actually did not have higher education, or even had only primary education.

Those with high ranks in the government are also regarded as “high social economic status” in China. People in this group may be good at social networking and political power, but usually with only college level education.

Meanwhile, people with advanced graduate education, including professors with Ph.D. degrees and physicians in China, have long years of education, but don’t have special privilege in the society and won’t consider themselves as the top level of the social ranks.

5) The reason mentioned for negative association of satisfaction with higher rates of governmental share might not be complete . It might indicate that the higher governmental shares may have not allocated appropriately for instance they me have been allocated to sophisticated unnecessary equipment’s , higher salaries or even corruption .

Response:

We sincerely appreciate your comments have brought our attention to rethink about this point.

We agree with the points you made here, including the possibilities of “corruption”. Since we don’t have solid evidence of corruption, and considering the political climate in China now, we now have reflected your concerns and revised the discussion in the manuscript as below:

“Third, there is also the possibility that some government expenditure on healthcare may have not been allocated appropriately or efficiently. For instance, the funding may have been allocated to sophisticated but unnecessary medical equipment. Future research should continue to explore and investigate this phenomenon.”

6) Reporting OR with confidence interval might increase the validity of the observation .

Response:

Following the reviewer’s suggestion, in Table2-3, now we have added confidence intervals.

Again, many sincere thanks for your positive appraisal of our work. Your feedback and suggestions with excellent academic insights are sincerely appreciated and highly valued. We are hopeful that our detailed response and extensive rewrites have addressed your concerns. Meanwhile, we remain open to any further comments on the revised manuscript.

Reviewer: **3**

Reviewer Name: Zlatko Nikoloski

Institution and Country: LSE, UK

Please state any competing interests or state 'None declared': None declared

I think this is an interesting paper that explores the link between general satisfaction with healthcare and its main correlates and it presents some interesting findings. However, the paper has numerous shortcomings.

1. While the authors in the introduction of the paper clearly state that the paper explores the general population satisfaction with healthcare, I think more time should be spent on comparing and contrasting some the literature; this is particularly important as so much could be understood by looking at general population perception of healthcare vs. perception of healthcare by users (i.e. people who interact with healthcare practitioners);

Response:

We sincerely appreciate the reviewer's suggestion. We have revised the first paragraph of this manuscript accordingly to compare and contrast the concepts of public satisfaction and patient satisfaction with the healthcare system.

2. I think the methodology is fairly straight forward, but it raises many questions, than providing answers. For example, a threshold of 70 is selected for the 0-1 coding of the dependent variable. I understand this is arbitrary, but the authors could have made an attempt to at least show some robustness of their findings. There are couple of ways of doing it. First, the authors could have used the standard OLS on an untransformed variable (i.e. the index from 0 to 100) and see if the statistical significance of the main variables of interest remains unchanged. Second, the authors could have increased or lowered this arbitrary boundary of 70, to provide further sensitivity checks to their findings.

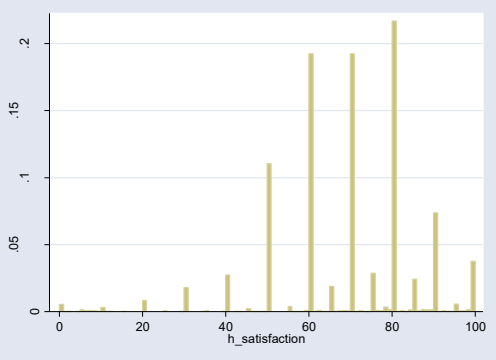
Response:

Again, we sincerely appreciate the reviewer's feedback and detailed suggestions about how to do the robustness check. We agree with the reviewer's comments.

Actually, we performed the robustness checks in the same way as the reviewer suggested and found robust results. The results are briefly mentioned in the robustness check section of our original manuscript (on Page 16). Now we have made explained about the robustness check more clearly in the revised manuscript.

Here we present the related information about how we made the decision of cutoff point and the robustness check.

OLS regressions on the raw score of satisfaction in this study is not recommended, because the score does not have normal distribution, as we can see from the histogram graph of the satisfaction score below. Also most responses concentrated on some integral cutoff points such as 50, 60, 70, 80.



Histogram graph of the satisfaction score of healthcare system in China (2013-2015)

As reported in Table 1 of the manuscript, the average satisfaction score of the sample is 68.5. As reported in the frequency table below, Top 40% and 15% of the respondents reports satisfaction scores higher than 70 points and 80 points respectively.

Frequency table of Healthcare Satisfaction Score

h_satisfaction	observations	Percent	Cum.
0	87	0.54	0.54
10	52	0.33	1.24
20	132	0.83	2.09
30	288	1.8	3.96
40	438	2.74	6.79
50	1,767	11.04	18.12
60	3,080	19.25	37.91
70	**3,078**	**19.24**	**59.41**
75	461	2.88	62.44
76	17	0.11	62.54
80	3,468	21.68	84.79
85	388	2.43	87.46
90	1,180	7.38	95.31
100	583	3.64	100
Total	**15,999 ***	**100**	

(**Note:** total observations15999 is unweighted raw data. The weighted total number is reported as 15969)

We have performed robustness check with cutoff points of 70 and 80 respectively and the regression results are as below. The estimates of variables of interest are all generally consistent.

Robustness check for public satisfaction of the healthcare system in China

VARIABLES	Logit model (1) Satisfied (Cutoff score=70)	Logit model (2) Satisfied (Cutoff score=80)	OLS (3) Satisfaction (raw score reported)
senior60	1.19***	1.19***	1.88***
	(0.05)	(0.05)	(0.35)
gender2	1.02	1.04	0.38
	(0.04)	(0.04)	(0.27)
married	0.95	1.08*	-0.03
	(0.04)	(0.05)	(0.33)
minor_ethnics	1.24***	1.29***	2.35***
	(0.08)	(0.08)	(0.51)
rural	0.88	0.88	-0.78
	(0.07)	(0.08)	(0.64)
internal_migrant	0.75***	0.78***	-2.30***
	(0.04)	(0.05)	(0.47)
employ	0.95	0.92**	-0.51*
	(0.04)	(0.04)	(0.31)
BH_insrc	1.17***	1.20***	1.36***
	(0.07)	(0.07)	(0.46)
_ledu1_2	0.81***	0.86***	-1.55***
	(0.03)	(0.04)	(0.33)
_ledu1_3	0.74***	0.66***	-2.31***
	(0.04)	(0.04)	(0.48)
_ledu1_4	0.52***	0.36***	-7.65***
	(0.09)	(0.08)	(1.40)
hlth_status2	1.12	0.96	0.76
	(0.12)	(0.10)	(0.85)
hlth_status3	1.21*	1.02	1.60*
	(0.13)	(0.11)	(0.84)
hlth_status4	1.46***	1.09	2.47***
	(0.15)	(0.11)	(0.82)
hlth_status5	1.62***	1.36***	3.73***
	(0.17)	(0.15)	(0.85)
econ_status2	1.15*	1.11	1.72***
	(0.09)	(0.09)	(0.64)
econ_status3	1.54***	1.32***	4.45***
	(0.12)	(0.11)	(0.63)
econ_status4	1.82***	1.70***	5.45***
	(0.18)	(0.17)	(0.77)
gov_exp_pct	0.96***	0.97***	-0.26***
	(0.00)	(0.01)	(0.04)
out_of_pocket_pct	1.00	1.00	0.05
	(0.01)	(0.01)	(0.05)
hexp_GDP_pct	1.09***	1.17***	0.71***
	(0.03)	(0.03)	(0.23)
bed_n_capita	1.00	0.99	-0.01
	(0.02)	(0.02)	(0.14)

hcare_force_capita	0.98	1.07	0.04
	(0.04)	(0.05)	(0.36)
_Iregion_mu_2	1.37***	1.17*	1.79***
	(0.11)	(0.09)	(0.62)
_Iregion_mu_3	1.40***	1.15	2.46***
	(0.13)	(0.11)	(0.73)
_Iregion_mu_4	0.53***	0.57***	-5.68***
	(0.04)	(0.05)	(0.66)
_Iregion_mu_5	0.79	0.49***	-1.89
	(0.14)	(0.09)	(1.40)
_Iregion_mu_6	0.75**	0.52***	-3.85***
	(0.11)	(0.08)	(1.17)
_Iregion_mu_7	1.53***	1.39***	1.74**
	(0.16)	(0.15)	(0.84)
_Iregion_mu_8	1.95***	1.56***	4.99***
	(0.26)	(0.20)	(1.00)
year2	1.31***	1.65***	1.90***
	(0.07)	(0.10)	(0.45)
rural_2015	1.58***	1.59***	4.04***
	(0.13)	(0.14)	(0.67)
Constant	1.05	0.23***	62.30***
	(0.37)	(0.08)	(2.80)
Observations	15,969	15,969	15,969
R-squared			0.06
Pseudo R-squared	0.0432	0.0496	

seEform in parentheses

*** p<0.01, ** p<0.05, * p<0.1

(**Note:** The weighted total observation number is reported as 15969. Actually, there is almost no differences in the results between weighted or unweighted regression.)

3. While most of the variables in the model are the standard ones used, I have quite a few issues with some of them.

First, do we have any objective measure of socio-economic standing? This could be, for example, per capita income or per capita consumption.

Response: Because we use a survey dataset, we don't have objective measure of socio-economic standing in the original dataset. Also, the dataset does not contain respondents' ID information. We have no way to link to other database or to obtain additional information about the respondents.

Second, there is an evident multicollinearity in some of the variables used in the model. For example, government expenditure on healthcare is a function of the total healthcare expenditure as a share of GDP. Have the authors explored ways of *mitigating* the impact of multicollinearity in this case?

Response:

As the reviewer points out, government expenditure on healthcare (*gov_exp_pct*) is a function of the total healthcare expenditure as a share of GDP (*hexp_GDP_pct*), while there are also many other social and economic determinants influencing these two variables independently. We have examined the relationship of variables and explored the potential multicollinearity in this case. The statistical findings from our efforts suggest that multicollinearity in this case will not cause bias our estimation. The analysis is reported as follows.

During the studied periods of 2013-2015, the national average value of *hexp_GDP_pct* and *gov_exp_pct* in China are 5.5% and 29.8 % respectively. We performed bivariate regression of *hexp_GDP_pct* and *gov_exp_pct* as reported below. The coefficient is 0.07 percentage points (p-value <0.001). Considering the small size of the coefficient, the co-linearity of the two variables is not a major concern of estimation.

hexp_GDP_pct	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
gov_exp_pct	.071712	.0012401	57.83	0.000	.0692812	.0741427
_cons	3.363577	.0378491	88.87	0.000	3.289388	3.437765

We also tested various specification of variables. As reported in the table below, the results in Column (1) are the those included in the manuscript. The results in Column (2) and (3) are consistent. Since the tables in the journal of health studies need to includ the confidence intervals, which take much space of the manuscript, we will report the results of robustness check as supplements.

Logit regressions of Healthcare system satisfaction

	(1)	(2)	(3)
VARIABLES	satisfied70	satisfied70	satisfied70
gov_exp_pct	0.96***		0.97***
	(0.01)		(0.00)
out_of_pocket_pct	1.00		1.01
	(0.01)		(0.01)
hexp_GDP_pct	1.12***	1.05*	
	(0.04)	(0.03)	
year2	1.24***	1.36***	1.37***
	(0.08)	(0.07)	(0.07)
rural_2015	1.57***	1.57***	1.60***
	(0.15)	(0.13)	(0.13)
Constant	0.92	0.56***	1.09
	(0.38)	(0.11)	(0.38)
Observations	15,969	15,969	15,969
Pseudo R-squared			

seEform in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: The regression has controlled all other variables (demographic and socioeconomic characteristics, and region dummy variables) as listed in Table 3 of the manuscript.

4. Parts of the paper are extremely poorly written and need to be redrafted.

Response:

We have invited an English native-speaker scholar to help to proofread this manuscript.

Again, many sincere thanks for your positive appraisal of our work. Your feedback and suggestions with excellent academic insights are sincerely appreciated and highly valued. We are hopeful that our detailed response and extensive rewrites have addressed your concerns. Meanwhile, we remain open to any further comments on the revised manuscript.

Reviewer: 4

Reviewer Name: Dr Neil Munro

Institution and Country: University of Glasgow, Scotland

Please state any competing interests or state 'None declared': None declared.

This paper presents a rather straightforward analysis of publicly available data on health care system satisfaction in China in two years from the recent decade. For the most part it is competently done. The data is appropriately contextualized. However there are a number of problems with the way the analysis is done.

First, converting a 0-100 scale to a dummy variable with an arbitrary cut-off point of 70 destroys a whole lot of information. Satisfaction is a question of degree and not a yes/no answer. The authors cite some prior studies which used a dummy variable but do not explain the decision.

Response:

We agree with the Reviewer's point that satisfaction is more about a question of degree than being a "Yes/no" answer. The variable of satisfaction in raw data of survey questionnaires usually contains multi levels to provide rich information from patients or customers. country?'

We have noticed the common practice in existing highly-cited literature about public satisfaction , is to simplify the satisfaction indicator from a category variable into a dummy variable, which indicating positive perceptions' ('good' and 'very good') and 'negative perceptions' ('bad' and 'very bad') (Footman et al., 2013; Xesfingi & Vozikis, 2016; AlSaud and Filippidis, 2018).

Even though the original satisfaction score in CGSS of this study is a nominal continuous variable, as we can see from the histogram graph of the satisfaction score below, most responses concentrated on some cutoff points such as 50, 60, 70, 80. In Chinese culture, 60 points means "Passing/nutral", 70 points means "good, satisfied", 80 points and above means "very good, very satisfied". Taking the facts

discussed above, we decided that it is reasonable to set the cutoff point of satisfaction at 70 points.

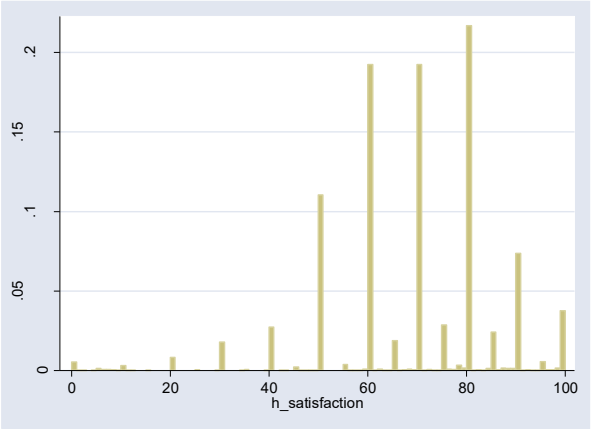


Figure: Histogram graph of the satisfaction score of healthcare system in China (2013-2015)

Table: Frequency table of Healthcare Satisfaction Score in CGSS dataset

h_satisfaction	observations	Percent	Cum.
0	87	0.54	0.54
10	52	0.33	1.24
20	132	0.83	2.09
30	288	1.8	3.96
40	438	2.74	6.79
50	1,767	11.04	18.12
60	3,080	19.25	37.91
70	**3,078**	**19.24**	**59.41**
75	461	2.88	62.44
76	17	0.11	62.54
80	3,468	21.68	84.79
85	388	2.43	87.46
90	1,180	7.38	95.31
100	583	3.64	100
Total	**15,999**	**100**	

(**Note:** total observations15999 is unweighted. The weighted total number is reported as 15969)

As reported in Table 1 of the manuscript, the average satisfaction score of the sample is 68.5. As reported in the frequency table below, 40% of the respondents reports satisfaction score higher than 70 points.

Reference:

Footman K, Roberts B, Mills A, et al. Public satisfaction as a measure of health system performance: a study of nine countries in the former Soviet Union, *Health Policy* 2013;112:62-9.

Xesfingi S, Vozikis A. Patient satisfaction with the healthcare system: Assessing the impact of socio-economic and healthcare provision factors, *BMC health services research* 2016;16:94.

AlSaud, A. M., Taddese, H. B., & Filippidis, F. T. (2018). Trends and correlates of the public's perception of healthcare systems in the European Union: a multilevel analysis of Eurobarometer survey data from

2009 to 2013. *BMJ open*, *8*(1), e018178.

Second, more detail is needed about the statistical treatment of aggregate-level variables. Is this a multi-level model? If not, treating aggregate variables as if they were individual-level variables may understate standard errors.

Response:
Yes, the regression model of this study is a multi-level model, specifically, the fixed effects (FE) model as introduced by Wooldridge (2009).

By including dummy variables of regions in China, the FE model controls unobserved, time-constant factors on regional level that affect the dependent variable (public satisfaction on individual-level).

Reference:
Wooldridge (2009), Introductory Econometrics: A Modern Approach, 4e, South-Western, Cengage Learning.

Third, if it is a multi-level model, there is still a problem with assuming that the aggregate-level variables have "ecological effects" on individual attitudes. The data is collected at province-level. Because provinces in China are huge, there is a problem with assuming that everyone within a given province has access to a similar level of health care resources. We don't know if the health resources effects reflect a higher level of health resources available to the individual due to the province they live, or some more general effect associated with the province, such as its level of economic development, or its political climate. More problematically, we know very little about the actual health resources available to the individual within their city or county. The same concern about level of aggregation arises in relation to the macro-regions. More granular statistics are required to be convincing.

Response:

We sincerely appreciate the Reviewer illustrated his concerns and the potential bias in great details, which are very helpful for us to have a good understanding and to address the concerns.

Concerns about the ecological effects in multilevel analysis of social science actually can be addressed by adopting statistics methodology of fixed effects model (Rice & Jones, 1997). The general effect associated with the province, or the unobserved actual resources/environment available to the individual within their city or county can be described as “unobserved effect” (Wooldridge , 2009). Another important assumption of the FE model is that those time-invariant characteristics are unique to the individual and should not be correlated with other individual characteristics. Each entity has its own individual characteristics that may or may not influence the predictor variables.

FE model explores the relationship between predictor and outcome variables within an entity. The linear unobserved effects model for N observations and T time periods is specified as follows:

$$y_{it} = X_{it}\beta + \alpha_i + u_{it} \text{ for } t = 1, \ldots, T \text{ and } i = 1, \ldots, N$$

Where:

- y_{it} is the dependent variable observed for individual i at time t.
- X_{it} is the time-variant $1 \times k$ (the number of independent variables) regressor vector.
- β is the $k \times 1$ matrix of parameters.
- α_i is the unobserved time-invariant individual effect. For example, the innate ability for individuals or historical and institutional factors for countries.
- u_{it} is the error term.

Unlike X_{it}, α_i cannot be directly observed.

There are various approaches to estimate the fixed effects. This study adopts the dummy variable approach, which adds a dummy variable for each region (omitting the first one because of multicollinearity). This method works if the sum of the number of series and the number of global parameters is smaller than the number of observations.

We explored with adding dummy variables on province level, however, the estimation results for many variables are insignificant, since the variation in the raw data is limited and there are more than 30 provincial units in China.

Ideally, the standard error of the individual observations should be clustered on the PSU level to control the unobserved effects on the lowest level. However, CGSS (the research survey institution and the original data provider) refused to release PSU information due to privacy protection concerns.

Reference:

Rice, N., & Jones, A. (1997). Multilevel models and health economics. Health economics, 6(6), 561-575.
Wooldridge (2009), Introductory Econometrics: A Modern Approach, 4e, South-Western, Cengage Learning (International Edition).

Fourth, there are difficulties with interpreting the findings. The analysis shows that density of hospital beds is positively associated with satisfaction but density of health workforce is not. (p.11). Surely it is the workforce that delivers health care, not the beds? The interpretation that it is the capacity of local hospitals which generates satisfaction is plausible, but it requires corroboration from some other kind of evidence.

Response:

We appreciate the Reviewer bringing up this issue. We have further reviewed the literature and provide further supporting findings.

so many patients are more willing to seek treatment in big cities. Therefore, hospitals in doctors' high-density areas, represented by Beijing and Shanghai, need to receive patients from all over the country except local residents. As a result, doctors in these cities, especially grade a hospitals, have a huge workload and can only give a few minutes to each patient, meanwhile communication constraints reduced public satisfaction .

Reference:
Herwartz H , Schley K . Improving health care service provision by adapting to regional diversity: An efficiency analysis for the case of Germany[J]. Health Policy, 2018:S016885101830006X.
Liu, Gordon, Vortherms, Samantha A, Hong, Xuezhi. China's Health Reform Update[J]. Social Science Electronic Publishing.

The finding that the share of government in healthcare expenditure reduces satisfaction is particularly misleading, since it suggests that the less expenditure the more satisfaction. This ignores the complexity of health care spending in China. It may be that the share of government expenditure is higher in poorer regions where the overall level of public and private expenditure is less. In short, the analysis does not strongly support the conclusions. More work is needed to turn this into a convincing account of health care system satisfaction in the period surveyed.

Response:
We sincerely appreciate your comments have brought our attention to rethink about this point. The health care spending and the operation of the system in China are complicated indeed.

We agree with Reviewer's opinion that "It may be that the share of government expenditure is higher in poorer regions where the overall level of public and private expenditure is less."

Another reviewer is also interested in this finding and points out the possibility of bribery, corruption or misallocation of healthcare resource. At this stage, we can not rule out these possibilities and the controversial finding is worthy of future deeper study and exploration.

Now we have revised the manuscript as follows:

"The negative association may also due to the fact that the share of government expenditure is higher in poorer regions, where the overall level of healthcare service is not advanced or satisfactory. There is also possibility that government expenditure of the healthcare may have not allocated appropriately or efficiently. For instance, the funding may have been allocated to sophisticated but unnecessary medical equipments and so on. Future research should continue to explore and investigate this point."

Again, many sincere thanks for your positive appraisal of our work. Your feedback and suggestions with excellent academic insights are sincerely appreciated and highly valued. We are hopeful that our detailed response and extensive rewrites have addressed your concerns. Meanwhile, we remain open to any further comments on the revised manuscript.

Reviewer: **5**
Reviewer Name: Jiaying Chen
Institution and Country: Nanjing Medical University, China
Please state any competing interests or state 'None declared': None declared

The manuscript focused on public satisfaction with health system in China during the health care system reform in 2013-2015. Public satisfaction with health system is one of important topics in health system evaluation.

I am not very clear about the meaning of "Rural and geographic variation" in this manuscript. Regarding health system reform in China, there is no strong evidence to show geographic disparities. At least there is no geographic trends in health reform policies in China. Even though the analysis found the differences between different areas (such as east, middle and west, southern and northern, etc.), I think the key and valuable reason should be health policy rather than geography.

Response:

We sincerely appreciate the reviewer's time and detailed precious feedback.

To avoid potential misunderstanding, rather than "geographic variation", now we use the term "regional variation" to refer to the differences between different areas (such as east, middle and west, southern and northern, etc.),

However, the manuscript didn't give the reasons for the different satisfaction with health system in China rural-urban or geographically. Without connection with health reform policy, the analysis will be none sense.

Response:

On Page 14-15 of the revised manuscript, in section of ***Rural disparities,*** we explain the changes in the satisfaction of in rural areas. Here we quote as below:

"*As shown in Panel B of Table 4, the odds ratio of Rural*2015 is as large as 1.57 (p<0.001). This finding indicates a large and significant enhancement in the satisfaction with the healthcare system in rural areas. After controlling the changes in 2015, the odds ratio of the rural area becomes insignificant, while the year dummy of 2015 is still large and highly significant (OR=1.24, p<0.001). Together, these results suggest that the healthcare reform actions of China from 2013 to 2015 have brought significant improvements to the healthcare satisfaction in rural areas.* "

Table 4 Regression of Resource, Rural & Years with Being Satisfied
Dep. Var. = "Being Satisfied"
Panel B

Variables	Odds ratio	P-value	[95% Conf.	Interval]
Rural	1.00	0.982	0.83	1.20
Rural* Year 2015	1.57	<0.0001	1.30	1.90
Year 2015	1.24	0.001	1.09	1.41
Constant	0.92	0.845	0.42	2.05
Observations	15,969			

Note: The regression has controlled all other variables as listed in Table 3.

There are also some misunderstandings and inaccurate introduction to health care system and the new waves of health care reform in China

Response:

We have further studied related literature and document about the healthcare reform in China. We have revised the Institution Background section of the manuscript, and revised some wording to be neutral.

Again, many sincere thanks for your positive appraisal of our work. Your feedback and suggestions with excellent academic insights are sincerely appreciated and highly valued. We are hopeful that our detailed response and extensive rewrites have addressed your concerns. Meanwhile, we remain open to any further comments on the revised manuscript.

VERSION 2 – REVIEW

REVIEWER	Dr Neil Munro University of Glasgow, Scotland
REVIEW RETURNED	03-Apr-2020

GENERAL COMMENTS	The manuscript is much improved from last time. I only have a few minor criticisms. The authors write: "Currently, there is only a small body of literature studying the public satisfaction of the healthcare system in China and its related factors[11, 12]." p.6, lines 5-8. It is odd not to cite Munro and Duckett here when public satisfaction with the healthcare system in China is exactly what our paper is about. It is cited further down as [27], but only in relation to a more specific point. The sampling information on p. 9, lines 23-39, is very sketchy. How, for example, would the PSUs chosen? More complete information on sampling procedures should be provided as supplementary material or a link should be provided. It's strange to divide Table 1 into Panels A and B wheny they are completely differently formatted, one portrait and the other landscape. Why not have two tables? NB: Chongqing, not Chongqin. Tables 2 is not legible with tracked changes. Table 4 is unclear. What does the title mean? It should specify what is being regressed on what using what sample or subsample. What do the Panels refer to? All this should be obvious without referring to the text. A similar problem arises with the Table 5.

VERSION 2 – AUTHOR RESPONSE

Reviewer's Comments to Author:

Reviewer: 4
Reviewer Name: Dr Neil Munro
Institution and Country: University of Glasgow, Scotland

The manuscript is much improved from last time. I only have a few minor criticisms.

1) The authors write: "Currently, there is only a small body of literature studying the public satisfaction of the healthcare system in China and its related factors[11, 12]." p.6, lines 5-8. It is odd not to cite Munro and Duckett here when public satisfaction with the healthcare system in China is exactly what our paper is about. It is cited further down as [27], but only in relation to a more specific point.

Response: We sincerely appreciate the point made by the Reviewer 4 here and agree with the suggestion. We have added the citation of Munro and Duckett (2016) as reference [13] and keep the citation at original [27].

2)The sampling information on p. 9, lines 23-39, is very sketchy. How, for example, would the PSUs chosen? More complete information on sampling procedures should be provided as supplementary material or a link should be provided.

Response:

Following the reviewer's suggestion, now in the section of *Data source introduction* in the manuscript we have added a website link of the CGSS (Chinese General Social Survey) (http://cgss.ruc.edu.cn/index.php?r=index/sample), providing detailed information about the sampling design. The sampling design of 2010 survey is also adopted for waves in 2013 and 2015.

"2010 design is still multi-stage stratified design. There are 3 sampling stages: PSUs is county-level units, there are 2762 PSUs in the sampling frame; SSUs are community-level units(villages [cun] and neighborhood committees [ju wei hui]); in selected SSU, 25 households (TSUs) are sampled with PPS method; in each selected household, 18 and above adult will be sampled with Kish grid. There are 43 Municipalities directly under the central government, provincial capital cities, and vice provincial cities in China. Comprehensive ranking by GDP, FDI and Education Level to these cities, the top 5 is Beijing, Shanghai, Tianjin, Guangzhou, and Shenzhen. The 2010 design set these 5 cities as self-representative stratum. This stratum consists of 67 PSUs. The rest 2695 PSUs are comprehensively ranked with GDP per capital, urbanization rate, and population density and then are equally classified into 50 strata. Within each stratum, 2 PSUs will be selected with PPS method. In each selected PSU, 4 communities are sampled with PPS method. There are 80 communities in self-representative stratum and 400 communities in the rest 50 strata. The total sample size of 2010 design is 12,000 households and 2000 are in self-representative stratum. "
(Last accessible: April 16, 2020)

3)It's strange to divide Table 1 into Panels A and B wheny they are completely differently formatted, one portrait and the other landscape. Why not have two tables?

Response:

Following the suggestion , now we have split Panels A and B of Table 1 as Table 1 an d Table 2. The numbers of other tables now are changed accordingly.

4)NB: Chongqing, not Chongqin.

Response:

We sincerely apologize for this typo and have corrected them in the manuscript.
Your knowledge about China is very impressive and sincerely admired!

5)Tables 2 is not legible with tracked changes.

Response:

Table 2 in manuscript R1, now numbered as Table 3, has added columns of confidence intervals, which were not provided in the original manuscript.

6)Table 4 is unclear. What does the title mean? It should specify what is being regressed on what using what sample or subsample.
What do the Panels refer to? All this should be obvious without referring to the text. A similar problem arises with the Table 5.

Response:

a) To better display the analysis results and make the meaning of the results clear, we display results in "Table 4 Panel A and Panel B" as "Table 5 and Table 6" with explicit titles.

"Table 5 Association between public satisfaction with the healthcare system and healthcare resources in China during 2013 to 2015 (Logistic Regression)

Table 6 Association between public satisfaction with the healthcare system and rural area of China during 2013 to 2015 (Logistic Regression)

b) The footnotes of Table 5-7 now clearly indicate the specific variables included in the regressions but not reported in the tables.

"Note: The regression has controlled all other variables (including demographic, education, self-reported health, self-reported household economic status, healthcare resource, region, and year) as listed in Table 4."

c) Table 5 in R1 now is "Table 7". Now we have renamed the title:

"Table 7 Association between public satisfaction with the healthcare system and regions of China during 2013 to 2015 (Logistic Regression) "

We are very grateful for your scholarly insights and advising of our research. We sincerely appreciate your detailed feedback, which have greatly helped to improve our manuscript to be more rigorous and reader-friendly. Without your scholarly high standard and patient guidance, our manuscript could not have improved to its current status.
Again, your precious time and efforts are highly valued ,especially during this pandemic time.
Please accept our heartfelt thanks!

VERSION 3 – REVIEW

REVIEWER	Neil Munro University of Glasgow, Scotland, UK
REVIEW RETURNED	22-Apr-2020

GENERAL COMMENTS	The manuscript is much improved and ready for publication after a thorough proofreading and spellcheck.