

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Prevalence of stroke and associated risk factors: a population-based cross-sectional study from the Qinghai-Tibet Plateau of China
AUTHORS	Li, ZhenHua; Hu, Quanzhong; Ji, WeiZhong; Fan, QingLi

VERSION 1 – REVIEW

REVIEWER	Nguyen, Dieu Deakin University, Deakin Health Economics
REVIEW RETURNED	19-Jul-2022

GENERAL COMMENTS	<p>Thank you for producing a very nice piece of research that gives the audience a good understanding of the prevalence of stroke in the general population and the high-risk group.</p> <p>This article deserves a chance to make improvements in some parts before the decision to be published is made. Significant improvement requires clarifying the employed aim, objective/research question/outcome. Minor improvement is mainly grammatical errors and some minor structural issues. Please see the require addressing for each area as below:</p> <p>1. Abstract Abstract: it would be nice to include a sentence describing some background information in the abstract</p> <p>2. Introduction The introduction was nicely written; however, there was a lack of a clearly defined research question presented in the introduction. Although the authors provided the aim and objective in the abstract, it is essential to reinstate the statement at the end of the introduction, as suggested in the STROBE statement. It will also aid authors in the reporting part for a better flow.</p> <p>3. Method The method was clearly written. However, I would like to clarify whether the stroke incidence used in this study is 2.32%? On page 5, lines 25-26, the authors stated that "The study showed a stroke incidence (p) of 2.32% in adults ≥ 40 years old". Please clarify if you used the incidence derived in this study or elsewhere. If the incidence was extracted from the preliminary analysis, please confirm if it is incidence or prevalence? Of note, the proportion of 2.32% was reported as prevalent in table 1 and page 7, line 30</p> <p>In my opinion, the reporting of retention rate (page 5, lines 30-33) should be moved to the Result section. This issue might be caused by an unspecified objective and aim earlier.</p>
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	<p>Also, please report the outcome clearer (i.e. primary outcome, secondary outcomes)</p> <p>4. Results The main concern in this study's result reporting is the appropriateness of labelling. As the study is a prevalence study, authors might want to clearly consider defining/using appropriate labels. For example, instead of "analysis of risk factors for stroke", authors might consider using phrase "prevalence of stroke amongst the high-risk group". Strictly speaking, it is a big difference between these two groups. Risk factor for stroke (accompanied by a risk/rate ratio) refers to the relationship association. In contrast, the prevalence of stroke amongst high-risk groups refers to proportional stroke measures amongst this sub-group presented in the reporting. This problem can be resolved by rewording + including a more explicit aim and objective.</p> <p>In addition, it would be nicer to report the results only in this part. An additional statement using published literature such as "the risk of..." on page 18, line 7 and "a 2018 study..." on page 10, line 17 and "a 2018 meta-analysis..." on page 10, line 31- 34 etc. can be considered at discussion?</p> <p>5. Discussion The limitation was discussed; however, the authors stated the intention to follow participants prospectively in future trials on page 13, line 36. It was a concern about this statement- should it be future observational studies as it will be more appropriate for the future aim that was also stated on page 13, line 36?</p> <p>Besides, the requirement is to be addressed. There was some minor issue</p> <ul style="list-style-type: none"> - Proofreading need- some minor grammar issues. For example, on page 2, line 12, a space is required between plateau and (2,000-4,500m) similar issue was detected throughout the manuscript. For numerical, please stay consistent with one or two decimals (i.e. two decimal places presented in the first paragraph of the result while one decimal place was seen elsewhere and in tables). - Please avoid using nonacademic language such as "my study" on page 5, line 30. - A reference is needed for this statement: "According to CNSSPP, screening should be done on a minimum of 1% of local people over 40" on page 5, line 20 <p>Overall, this appears to be a good piece of research, although some minor issues were detected. Nevertheless, it will add value to understanding stroke prevalence in general and stroke prevalence in the high-risk subgroup. In addition, this study may contribute to future public health research and action, especially in stroke prevention.</p>
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REVIEWER	Björkelund, Cecilia University of Gothenburg Sahlgrenska Academy, Primary Health Care/School of Public Health and Community Medicine
REVIEW RETURNED	26-Jul-2022

GENERAL COMMENTS	This is an interesting paper about a population survey on stroke
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	<p>prevalence and stroke risk factor prevalence. However, the manuscript has too many flaws, especially concerning language, and needs a thorough all over revision before it would be possible to form an opinion on the manuscript. Here I present suggestions for change:</p> <p>Abstract: This is the best part of the manuscript and it only needs some minor revision.</p> <p>Introduction English language editing should be effectuated (for example: " Study says stroke prevalence in the Northeast is almost three times higher than in the Southwest). After the sentence: However, stroke epidemiology at high altitudes has not been extensively studied, especially in areas with an altitude of 4000 meters and over have always tended to be blank, I think you should clearly present the aim of the study. The following sentences could be included in the Methods part.</p> <p>You describe the different height areas as (2,000-2,500m), mid-altitude (2,500-3,000m), and high-altitude residence (3,000-4,500m) –it would be more convenient 2000-2,500 m, mid-altitude >2,500 – 3000, high >3,000-4,500.</p> <p>Use tempus imperfect all over - instead of "The main task of the entire screening is to assess the risk factors for stroke..." write The main task of the entire screening was to assess... The quality control process should be much more shortly described and tempus should be imperfectum all over.</p> <p>Assessment criteria: Use a describing language and imperfect tempus.</p> <p>Triglyceride- should be serum triglycerides.</p> <p>Patient and public involvement – should be expressed as something like: No patients were involved in the development of the research question or outcome measures, nor in the recruitment to or conduct of the study. The results will be disseminated to study participants through news media.</p> <p>Results Table 1 You don't have to repeat the exact figures as they are presented in the table, but rather like: the low plateau population represented around 30 % of the population – while the middle-altitude represented almost 50% and the high around 20 %.</p> <p>Table 2 The same is valid for Table 2, do not repeat all figures but more like you do in the sentence : In addition, the data of this study showed that in the risk factor analysis of the stroke population, the top three risk factors for strokeetc</p> <p>"As shown in table 2, The overall screening population analyzed eight-stroke risk factors, including hypertension, dyslipidemia," Should be expressed as: As shown in table 2, the overall screening</p>
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	<p>population was analyzed concerning the eight stroke risk factors hypertension, dyslipidemia,... etc</p> <p>You should indicate what the p-values represent – I suppose you make the comparison with population based data from 2010 China Statistical Yearbook Standardization, but this should be indicated in the text or the table.</p> <p>To make Table 2 more readable, you could add a column to the right where the p-values are presented.</p> <p>You present: "Among ethnic groups, the prevalence of stroke was significantly higher in Tibetans than in Han and Hui (3.63% vs. 1.98% vs. 2.08%, as shown in table 2. " I can not find this presented in table 2.</p> <p>You write: "A total of 2630 high-risk groups were detected in this study, and the detection rate was 26.2%, which was significantly higher than the national high-risk group detection rate (19.8%). It is worth noting that among the high-risk groups, the detection rate of high-risk male groups was 30.5%, which was significantly higher than that of females (22.7%). The above results reflect that the proportion of the high-risk population in the high-altitude was relatively high, and the prevention and control of stroke are necessary. Strict. "</p> <p>I suggest that you change "groups" to "individuals", which would make the text understandable, and make further editing.</p> <p>In the same paragraph the word Strict is included: "... high-altitude was relatively high, and the prevention and control of stroke are necessary. Strict. " I don't understand this.</p> <p>"In terms of different altitudes, most middle altitudes were higher than low and high altitudes" – I think you mean that most values were higher in the middle altitude population than in the low and high altitudes.</p> <p>However, in table 3 there is indication of significant difference concerning all risk factors for low altitudes – it is not indicated what the significance represents.</p> <p>"Several evidence-based medical studies have confirmed that overweight and obese increase the risk of stroke." Better: Several medical studies have confirmed that being overweight and obese increases the risk of stroke.</p> <p>What does the following "Times 46 A " mean?</p> <p>"The smoking rate decreased with age, and the smoking rate of males was significantly higher than that of females (28.4% vs. 1.0%. Middle-latitude areas were the highest regional distribution, the same as hypertension, diabetes, and dyslipidemia."</p> <p>A parenthesis is lacking after (28.4% vs 1.0%.</p> <p>Middle-latitude areas had the highest regional distribution...</p> <p>You often change tempus – from imperfectum to present. Use imperfectum all over. For example: "In terms of different altitudes, most middle altitudes were higher than low and high altitudes (55.1% vs. 46.0% vs. 38.0%). The prevalence of hypertension in different ethnic groups is also different. The Han, Tibetan, Hui, and other ethnic groups are 52.1%, 39.0%, 45.6, and 52.6%, as shown in table 3 ."</p>
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	<p>Table 4 You should not present the Odds Ratios and Confidence Interval figures in the text as they already are presented in the table.</p> <p>Discussion This part should also be edited and a discussion concerning how to integrate stroke prevention in other prevention activities should be added.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Major comments:

1. Abstract

Comment: it would be nice to include a sentence describing some background information in the abstract.

Response: Thank you for your suggestion. As per your request, we've already added a sentence describing some background information in the abstract.

2. Introduction

Comment: The introduction was nicely written; however, there was a lack of a clearly defined research question presented in the introduction. Although the authors provided the aim and objective in the abstract, it is essential to reinstate the statement at the end of the introduction, as suggested in the STROBE statement. It will also aid authors in the reporting part for a better flow.

Response: Thank you for your suggestion. As you suggested, we've already added sentences to reinstate the statement at the end of the introduction.

3. Method

Comment 3.1: The method was clearly written. However, I would like to clarify whether the stroke incidence used in this study is 2.32%? On page 5, lines 25-26, the authors stated that "The study showed a stroke incidence (p) of 2.32% in adults ≥ 40 years old". Please clarify if you used the incidence derived in this study or elsewhere. If the incidence was extracted from the preliminary analysis, please confirm if it is incidence or prevalence? Of note, the proportion of 2.32% was reported as prevalent in table 1 and page 7, line 30

Response: Thank you for your reminder. Corrected to: The study showed a stroke prevalence (p) of 2.32% in adults ≥40 years 1.

[1] Wang Y J, Li Z X, Gu H Q, et al. China Stroke Statistics 2019: A Report From the National Center for Healthcare Quality Management in Neurological Diseases, China National Clinical Research Center for Neurological Diseases, the Chinese Stroke Association, National Center for Chronic and Non-communicable Disease Control and Prevention, Chinese Center for Disease Control and Prevention and Institute for Global Neuroscience and Stroke Collaborations[J]. *Stroke Vasc Neurol*, 2020,5(3):211-239.

Comment 3.2: In my opinion, the reporting of retention rate (page 5, lines 30-33) should be moved to the Result section. This issue might be caused by an unspecified objective and aim earlier. Also, please report the outcome clearer (i.e. primary outcome, secondary outcomes)

Response: Thank you for your suggestion. As you suggested, the reporting of retention rate has moved to the Result section. The report of the results section has also been revised and divided into four parts: 1) Demographic characteristics of the screening population. 2) Prevalence analysis (Prevalence of stroke and detection rate of high-risk stroke, Prevalence of general risk factors) . 3) stroke associated risk factors. 4) Stroke prediction model.

4. Results

Comment 4.1: The main concern in this study's result reporting is the appropriateness of labelling. As the study is a prevalence study, authors might want to clearly consider defining/using appropriate labels. For example, instead of "analysis of risk factors for stroke", authors might consider using

phase "prevalence of stroke amongst the high-risk group". Strictly speaking, it is a big difference between these two groups. Risk factor for stroke (accompanied by a risk/rate ratio) refers to the relationship association. In contrast, the prevalence of stroke amongst high-risk groups refers to proportional stroke measures amongst this sub-group presented in the reporting. This problem can be resolved by rewording + including a more explicit aim and objective.

Response: Thank you for your suggestion. The report of the results section has also been revised and divided into four parts: 1) Demographic characteristics of the screening population. 2) Prevalence analysis (Prevalence of stroke and detection rate of high-risk stroke, Prevalence of general risk factors) . 3) stroke associated risk factors. 4) Stroke prediction model.

Comment 4.2: In addition, it would be nicer to report the results only in this part. An additional statement using published literature such as "the risk of..." on page 18, line 7 and "a 2018 study..." on page 10, line 17 and "a 2018 meta-analysis..." on page 10, line 31- 34 etc. can be considered at discussion?

Response: Thank you for your suggestion. As you suggested, statements like above have moved to the Discussion section.

5. Discussion

Comment : The limitation was discussed; however, the authors stated the intention to follow participants prospectively in future trials on page 13, line 36. It was a concern about this statement-should it be future observational studies as it will be more appropriate for the future aim that was also stated on page 13, line 36?

Response: Thank you for your suggestion. We have changed this to the following statement: This study has some limitations. First, several other risk factors (such as alcohol intake, air pollutants, and dietary habits) have also been shown to contribute to stroke risk. We were unable to include them in the current analysis due to the lack of information in this survey. Second, part of the information in this study was obtained through inquiry and survey, which may lead to recall bias and result differences. In addition, this survey only sampled residents aged ≥ 40 years, so our current results cannot be generalized to all age groups on the Qinghai-Tibet Plateau.

minor comments:

Comment 1: Proofreading need- some minor grammar issues. For example, on page 2, line 12, a space is required between plateau and (2,000-4,500m) similar issue was detected throughout the manuscript. For numerical, please stay consistent with one or two decimals (i.e. two decimal places presented in the first paragraph of the result while one decimal place was seen elsewhere and in tables).

Response: We regret there were problems with the English. The paper has been carefully revised by a professional language editing service to improve the grammar and readability with editing certificate.

Comment 2: Please avoid using nonacademic language such as "my study" on page 5, line 30.

Response: Thank you for your suggestion. The paper has been carefully revised by a professional language editing service.

Comment 3: A reference is needed for this statement: "According to CNSSPP, screening should be done on a minimum of 1% of local people over 40" on page 5, line 20.

Response: Thank you for your suggestion. As you suggested, we have add relevant references 2, 3 :
[2] Wang W, Jiang B and Sun H, et al. Prevalence, Incidence, and Mortality of Stroke in China: Results from a Nationwide Population-Based Survey of 480 687 Adults. *Circulation* (2017); 135: 759-771. Journal Article; Research Support, Non-U.S. Gov't. doi: 10.1161/CIRCULATIONAHA.116.025250.

[3] Yi X, Luo H, Zhou J, et al. Prevalence of stroke and stroke related risk factors: a population based cross sectional survey in southwestern China[J]. *BMC Neurol*, 2020,20(1):5.

Reviewer: 2

Major comments:

1. Abstract

Comment: This is the best part of the manuscript and it only needs some minor revision.

Response: Thank you for your reminder. The paper has been carefully revised.

2. Introduction

Comment 2.1: English language editing should be effectuated (for example: " Study says stroke

prevalence in the Northeast is almost three times higher than in the Southwest).

Response: Thank you for your reminder. The paper has been carefully revised by a professional language editing service to improve the grammar and readability with editing certificate.

Comment 2.2: After the sentence: However, stroke epidemiology at high altitudes has not been extensively studied, especially in areas with an altitude of 4000 meters and over have always tended to be blank, I think you should clearly present the aim of the study.

Response: Thank you for your suggestion. As you suggested, we've already added sentences to state aim at the end of the introduction.

Comment 2.3: The following sentences could be included in the Methods part.

Response: Thank you for your suggestion. As you suggested, The following sentences has moved to the Methods part.

Comment 2.4: You describe the different height areas as (2,000-2,500m), mid-altitude (2,500-3,000m), and high-altitude residence (3,000-4,500m) –it would be more convenient 2000-2,500 m, mid-altitude >2,500 – 3000, high >3,000-4,500.

Response: Thank you for your suggestion. As you suggested, have made correction which we hope meet with your approval.

Comment 2.5: Use tempus imperfect all over - instead of "The main task of the entire screening is to assess the risk factors for stroke... " write The main task of the entire screening was to assess...The quality control process should be much more shortly described and tempus should be imperfectum all over.

Response: Thank you for your suggestion. As you suggested, We have simplified the above parts.

Comment 2.6: Assessment criteria: Use a describing language and imperfect tempus.

Triglyceride- should be serum triglycerides.

Response: We regret there were problems with the English. The paper has been carefully revised by a professional editing service.

Comment 2.7: Patient and public involvement – should be expressed as something like: No patients were involved in the development of the research question or outcome measures, nor in the recruitment to or conduct of the study. The results will be disseminated to study participants through news media.

Response: Thank you for your suggestion. As you suggested, We have simplified the above parts.

Results

Table 1 Table 2

Comment 1: You don't have to repeat the exact figures as they are presented in the table, but rather like: the low plateau population represented around 30 % of the population – while the middle-altitude represented almost 50% and the high around 20 %.The same is valid for Table 2, do not repeat all figures but more like you do in the sentence : In addition, the data of this study showed that in the risk factor analysis of the stroke population, the top three risk factors for strokeetc."As shown in table 2, The overall screening population analyzed eight-stroke risk factors, including hypertension, dyslipidemia,"Should be expressed as: As shown in table 2, the overall screening population was analyzed concerning the eight stroke risk factors hypertension, dyslipidemia,... etc

Response: Thank you for your suggestion. As you suggested, We have simplified the above parts.

Comment 2: You should indicate what the p-values represent – I suppose you make the comparison with population based data from 2010 China Statistical Yearbook Standardization, but this should be indicated in the text or the table. To make Table 2 more readable, you could add a column to the right where the p-values are presented.

Response: Thank you for your suggestion. P values, intragroup comparison in Survey population/ Stroke population/ High risk stroke population, were calculated with the Rao-Scott-X2 test. This has indicated in the table. We believe that the comparison within the group is more meaningful. The two groups, Stroke population and High risk Stroke population, have a relationship of inclusion, so the comparison between the groups is not significant. So we did not add a column to the right where the p-values are presented. we hope meet with your approval.

Comment 3: You write: "A total of 2630 high-risk groups were detected in this study, and the detection rate was 26.2%, which was significantly higher than the national high-risk group detection rate (19.8%). It is worth noting that among the high-risk groups, the detection rate of high-risk male groups was 30.5%, which was significantly higher than that of females (22.7%). The above results reflect that the proportion of the high-risk population in the high-altitude was relatively high, and the prevention and control of stroke are necessary. Strict." I suggest that you change "groups" to "individuals", which would make the text understandable, and make further editing. In the same paragraph the word Strict is included: "... high-altitude was relatively high, and the prevention and control of stroke are necessary. Strict." I don't understand this.

Response: Thank you for your suggestion. As you suggested, We have corrected the above parts. As follows, It is worth noting that among the high-risk individuals, the detection rate of male (30.5%) was significantly higher than females (22.7%).

Table 3

Comment 1: "In terms of different altitudes, most middle altitudes were higher than low and high altitudes" – I think you mean that most values were higher in the middle altitude population than in the low and high altitudes. However, in table 3 there is indication of significant difference concerning all risk factors for low altitudes – it is not indicated what the significance represents.

Response: We are very sorry for your misunderstanding caused by our unclear expression. "Most values were higher in the middle altitude population than low and high altitude". P values indicates intra-group comparison. That is, comparisons between different ages, different altitudes, different genders, different ethnic groups. This has indicated in the table 3.

Comment 2: "Several evidence-based medical studies have confirmed that overweight and obese increase the risk of stroke." Better: Several medical studies have confirmed that being overweight and obese increases the risk of stroke.

Response: Thank you for your suggestion. As you suggested, We have corrected the above parts.

Comment 3: What does the following "Times 46 A" mean?

Response: We are very sorry for my mistakes. This sentence has been deleted.

Comment 4: "The smoking rate decreased with age, and the smoking rate of males was significantly higher than that of females (28.4% vs. 1.0%. Middle-latitude areas were the highest regional distribution, the same as hypertension, diabetes, and dyslipidemia." A parenthesis is lacking after (28.4% vs 1.0%. Middle-latitude areas had the highest regional distribution... You often change tempus – from imperfectum to present. Use imperfectum all over. For example: "In terms of different altitudes, most middle altitudes were higher than low and high altitudes (55.1% vs. 46.0% vs. 38.0%). The prevalence of hypertension in different ethnic groups is also different. The Han, Tibetan, Hui, and other ethnic groups are 52.1%, 39.0%, 45.6, and 52.6%, as shown in table 3."

Response: We are very sorry for my mistakes. We have corrected the above parts.

Table 4

Comment: You should not present the Odds Ratios and Confidence Interval figures in the text as they already are presented in the table.

Response: Thank you for your suggestion. As you suggested, We have corrected the above parts.

Discussion

Comment: This part should also be edited and a discussion concerning how to integrate stroke prevention in other prevention activities should be added.

Response: Thank you for your suggestion. As you suggested, We have corrected the Discussion sections.

VERSION 2 – REVIEW

REVIEWER	Nguyen, Dieu Deakin University, Deakin Health Economics
REVIEW RETURNED	06-Oct-2022

GENERAL COMMENTS	<p>It was beautiful paper. The flow of the articles is good now. I have only had some small suggestions for improvement:</p> <p>1. I appreciated that professional language services were used; however, please check thoroughly the editing, especially in terms of definition and technical words. For example:</p> <p>1.1 Stroke definition: "Stroke is a clinical syndrome (World Health Organization [WHO] definition) characterized by sudden onset of localized brain dysfunction caused by cerebrovascular disease that persists for more than 24 hours or leads to death" not all strokes will lead to death, some might lead to permanent disability. Thus, this sentence is misleading</p> <p>1.2 This opening sentence doesn't make sense (page 5, lines 27-28): "According to the CNSSPP, screening should be performed on a minimum of 1% of local people over"</p> <p>1.3 Please explain what is "diagnosed by a level 2 or higher hospital" on page 4, lines 52-52. In the last version, the author used the term "secondary or higher" which is more consistent with international literature.</p> <p>Some inappropriate presentations. For example: using non capitalised at the beginning of subheading on page 10, line 40 These mistakes can be seen throughout the paper, please have further action on that</p> <p>Other than that, I have no further comments. Thank you!</p>
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REVIEWER	Björkelund, Cecilia University of Gothenburg Sahlgrenska Academy, Primary Health Care/School of Public Health and Community Medicine
REVIEW RETURNED	26-Sep-2022

GENERAL COMMENTS	<p>Thank you for a much improved manuscript. I only have some minor proposals.</p> <p>1. There are still some tempus flaws but very few compared to earlier version</p> <p>2. Page 4 – indicate the aim of the study .</p> <p>3. Page 5 line 22 –" study participants" can be misunderstood –</p> <p>4. Page 6 line 4: "A total of 10056 cases (including 223 stroke cases and 2,630 high-risk populations for stroke)..." replace 'populations' with f.ex.' individuals'.</p> <p>5. Page 5 line 8: The sentence "The study adopted the method of cluster sampling, conducted 10,700 residents aged ≥40 years and living on the Qinghai-Tibet Plateau of China for more than six months participated from January 2019 to December 2021." needs editing.</p> <p>6. Page 10 and 11 : many sentences starts with "This study showed..." I think you could omit most of the words "This study showed" and just present the results.</p> <p>7. You use the term 'patients' but in this population based study, all individuals examined were not patients. Maybe you should use participants or examined persons .</p>
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VERSION 2 – AUTHOR RESPONSE

Reviewer: 1

Minor comments:

Comment 1: Stroke definition: "Stroke is a clinical syndrome (World Health Organization [WHO] definition) characterized by sudden onset of localized brain dysfunction caused by cerebrovascular disease that persists for more than 24 hours or leads to death" not all strokes will lead to death, some might lead to permanent disability. Thus, this sentence is misleading.

Response: Thank you for your suggestion. As per your request, we have changed this to the following statement:

Based on the World Health Organization [WHO] criteria, stroke, also called a "cerebrovascular accident", involves a group of diseases caused by the sudden rupture of a blood vessel in the brain or by a blockage that prevents blood from flowing to the brain, causing damage to brain tissue 24. In addition, other definitions have also modified and refined.

Comment 2: This opening sentence doesn't make sense (page 5, lines 27-28): "According to the CNSSPP, screening should be performed on a minimum of 1% of local people over".

Response: We are very sorry for your misunderstanding caused by our unclear expression. we have changed this to the following statement:

According to China's sixth national population census, there were 354,692 inhabitants aged 40 years or over in the six communities in 2010. The CNSSPP stipulates that screening should be performed with a minimum of 1% of local people over 33 34. Therefore, the sample size was anticipated to be 10640 (accounting for 3% of the target population).

Comment 3: Please explain what is " diagnosed by a level 2 or higher hospital" on page 4, lines 52-52. In the last version, the author used the term "secondary or higher" which is more consistent with international literature.

Response: Thank you for your suggestion. As per your request, we have changed this to the following statement: Participants who were diagnosed with diabetes received treatment (diagnosed by a secondary or higher hospital).

We are honored to have this opportunity to explain the Chinese hospital classification system to you (you can find the following content from https://detailedpedia.com/wiki-Classification_of_Chinese_hospitals).

Within the health system, the Classification of Chinese hospitals is a 3-tier system according to the Ministry of Health of the People's Republic of China. Hospitals in China have been classified since at least 2008 in a system that recognizes a hospital's ability to provide medical care, medical education, and conduct medical research. Hospitals are designated as Primary, Secondary or Tertiary hospitals.

1.A primary hospital is typically a township hospital that contains less than 100 beds. They are tasked with providing preventive care, minimal health care and rehabilitation services. A primary hospital is similar to Community hospitals in the West.

2.A secondary hospital is one that tend to be affiliated with a medium size city, county or district and contain more than 100 beds, but less than 500. They are responsible for providing comprehensive health services, as well as medical education and conducting research on a regional basis. A secondary hospital is similar to a Regional hospital or District hospital in the West.

3.A tertiary hospital is a comprehensive, referral, general hospitals at the city, provincial or national level with a bed capacity exceeding 500. They are responsible for providing specialist health services, perform a bigger role with regard to medical education and scientific research and they serve as medical hubs providing care to multiple regions. The tertiary hospital is similar to a Tertiary referral hospital in the West.

Comment 4: Some inappropriate presentations. For example: using non capitalised at the beginning of subheading on page 10, line 40.

Response: We are very sorry for my mistakes. We have corrected similar mistakes throughout the paper.

We tried our best to improve the manuscript and made some changes in the manuscript. These changes will not influence the content and framework of the paper. We appreciate for your warm work earnestly and hope that the correction will meet with approval. Once again, thank you very much for your comments and suggestions.

Reviewer: 2

Minor comments:

Comment 1: There are still some tempus flaws but very few compared to earlier version.

Response: Thank you for your suggestion. As you suggested, We have carefully revised some tempus flaws throughout the paper and hope that the correction will meet with approval.

Comment 2: Page 4 – indicate the aim of the study.

Response: Thank you for your suggestion. As you suggested, we has been revised to:

This study analyzed data from the National Health and Family Planning Commission's public welfare project—The China National Stroke Screening and Prevention Project (CNSSPP) 22. The main aims of the study were as follows: (1) to determine the prevalence of stroke, the detection rate of individuals at high risk of stroke, and the prevalence of risk factors among people over 40 years old living in the Qinghai-Tibet Plateau in China and (2) to determine associated risk factors for stroke and develop a model to predict the occurrence of the outcomes.

Comment 3: Page 5 line 22 –" study participants" can be misunderstood –

Response: Thank you for your suggestion. We have changed "study participants" to "Table 1. Characteristics of the participants and the prevalence of stroke and individuals at high risk of stroke".

Comment 4: Page 6 line 4: "A total of 10056 cases (including 223 stroke cases and 2,630 high-risk populations for stroke)..." replace 'populations' with f.ex.' individuals'.

Response: Thank you for your suggestion. We have changed "populations" to "individuals".

Comment 5: Page 5 line 8: The sentence "The study adopted the method of cluster sampling, conducted 10,700 residents aged ≥ 40 years and living on the Qinghai-Tibet Plateau of China for more than six months participated from January 2019 to December 2021." needs editing.

Response: Thank you for your suggestion. We have corrected the above parts as follows: "From January 2019 to December 2021, cluster sampling selected 10,700 residents aged ≥ 40 years who

had lived on the Tibetan Plateau of China for more than six months. ” We hope that the correction will meet with approval.

Comment 6: Page 10 and 11 : many sentences starts with ”This study showed...” I think you could omit most of the words ”This study showed” and just present the results.

Response: Thank you for your suggestion. As you suggested, We have simplified the above parts throughout the paper.

Comment 7: You use the term 'patients' but in this population based study, all individuals examined were not patients. Maybe you should use participants or examined persons .

Response: Thank you for your suggestion. We have changed “patients” to “participants”.

We tried our best to improve the manuscript and made some changes in the manuscript. These changes will not influence the content and framework of the paper. We appreciate for your warm work earnestly and hope that the correction will meet with approval. Once again, thank you very much for your comments and suggestions.