

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Perspectives on the current state of Nigeria's emergency care system among participants of an Emergency Medicine symposium: a qualitative appraisal
<b>AUTHORS</b>	Usoro, Agnes; Aiwonodagbon, Benjamin; Strong, Jonathan; Kivlehan, Sean; Akodu, B; Olufadeji, Ayobami

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Diederike Geelhoed Independent, Spain
<b>REVIEW RETURNED</b>	10-Sep-2020

<b>GENERAL COMMENTS</b>	<p>Thank you for sharing this paper with me for review. The transition towards a broader range of services, including emergency medicine, required in health systems in many low-income countries, is an important topic which has not yet received sufficient attention. Therefor this paper on perspectives on emergency care in Nigeria among interested parties, would (in my opinion) be worth publishing. However, I suggest this manuscript would benefit from major revision before considering publication.</p> <p>- Major Revisions</p> <p>. Page 5: Introduction: It would be useful to frame the study within the present international policy environment, specifically SDG 3 on universal health coverage including financial protection. In addition, I suggest presenting the study within the outline of the challenges many LMIC face in their pursuit of universal health care in transitioning their health systems, focused in the past mainly on maternal and child health and acute infectious diseases, towards systems capable of offering a wider range of services, including management of chronic conditions as well as of trauma, in response to the changing circumstances of their populations, ie. urbanisation, changing lifestyles, and changing demographic profiles. The transition many of these countries face towards a triple burden of disease (infectious diseases, non-communicable diseases, and trauma/violence) requires corresponding transitions in the health systems caring for their populations.</p> <p>. Page 5: Many of the health system indicators presented would be more accessible when presented in a table. In view of the participants' references to financial hardship related to health care as well as to health financing, it would be good to include in the table with health system indicators in the introduction the information on health expenditure per person per year in Nigeria, as well as some idea of how much of that is out-of-pocket spending, as well as health insurance. Nigeria may have the biggest economy in Africa, but it also has the largest population, and per capita spending for health may still be inadequate. How much should it increase to be able to</p>
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	<p>pay for adequate emergency health care services?</p> <p>. Page 5-6: In addition to pointing out the limitations of the Nigerian health system in emergency care, it would be useful to describe which programs currently do receive priority in the health system, and how their performance is in the care for emergencies in those fields, for example, acute malaria infection or diarrhoea with dehydration in children, obstetric emergencies. It seems to me that other emergencies, such as care for acute complications of diabetes or cardiovascular disease, as well as for trauma like car accidents or interpersonal violence, are in a different category from the conditions mentioned before, that is, these likely have different limitations, particularly regarding technical capabilities, available protocols, equipment, etc. At present, all urgent conditions are heaped into one category with the same group of limitations, which I think is unlikely to correctly reflect reality on the ground.</p> <p>. Page 6-7: Methods: The participants in this study were attendants at an emergency medicine symposium in Lagos, both health personnel and lay people. These participants are described as members of the public, local community members, which I find somewhat misleading, as that suggests an effort to recruit people representative of the general population of Lagos, if not Nigeria at least. The participants, however, were self-selected in their attendance at the conference, I suppose, while their participation in the study was thus a convenience sample from among self-selected people with an interest in emergency medicine, probably from within the Lagos population. I suggest finding a better description for the participants than members of the public or local community members. They might, for example, simply be called, emergency care symposium attendants.</p> <p>. Page 7: The methods section does presently not include a positioning or description of the researchers' viewpoints on emergency medicine. It is stated that the conference was hosted by WeBelieve Health, a non-profit organization. More information on the researchers' characteristics and perspectives needs to be included to enable more adequate interpretation of the study's results. What were the objectives of the symposium? What is the mission of the NGO involved? Are the researchers NGO staff? Is there a link with the Lagos University Teaching Hospital beyond the ethics approval? Are the researchers emergency health care staff?</p> <p>. Page 8: A large majority of the participants are health care professionals, many of them medical doctors. How has this been addressed during the discussions in the focus groups? Were they grouped together with lay people and subordinate health care staff?</p> <p>. Page 9: Data analysis was performed by two independent investigators. I suppose that means, analysing independently from each other. However, later in the same paragraph, these same investigators were again described as independent when conducting quality assessments of the results, which I find confusing. Did they do these assessments also independently from each other? Or were they investigators otherwise independent from the study?</p> <p>. Page 10. Results: it would be better to include in the presented quotations a reference of who among the participants was speaking (especially whether it was a medical doctors, health care staff, or lay person). In large parts of the text, it is not clear what are citations and what is text provided by the authors.</p> <p>. Page 15: For this reason, the majority of patients receive initial care by family members or bystanders who lack formal training resulting in many simply "fanning [you] with an ipele (ipele is a head scarf)." Who states this, 'the majority of patients'? A participant or the</p>
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	<p>authors? The study did by no means verify whether the majority of patients receive family care or not. So, I suppose this is a quotation, but that is not clear from the current text. This aspect needs to be verified and corrected throughout the results section. It is crucial that the paper makes clear and gives priority to the participants' voices, and that the researchers focus on the abstraction and interpretation of identified themes and implications.</p> <p>. Page 20. I suggest changing the term 'uncompensated care'. It seems to mean difficulties in paying for health services, but it is an awkward choice of words. Financial hardship related to health care might be a better choice.</p> <p>. Page 21. I suggest changing 'stewardship' with 'governance', which has wider connotations.</p> <p>. Page 23. Discussion: Rather than discussing the findings of the study and comparing them with other studies and publications, the discussion seems to focus on presenting suggestions for emergency care system improvements. It is not clear whether these suggested remedies emerged in the focus groups from participants (if so, they need to be included under the section results), or whether they are suggestions from the authors. This section needs re-writing, to first present an analysis of the study's findings and their meaning and interpretation within the already available evidence on the topic. No new information should be presented in the discussion section (for example, page 24, information on the Nigerian ambulance system, belongs in the introduction, or woven in with the results when presenting the findings on pre-hospital services). Presently, none of the suggested improvements refer to scientific evidence that they might actually work, which is not acceptable. These suggestions, if indeed they originate from the authors, needs to be evidence-based.</p> <p>The abstract and conclusions need to be re-written accordingly after the revisions as suggested above.</p> <p>Key words: rather than twice including health systems, it might be better to change one entry to 'emergency care' or something similar.</p> <p>Strengths and limitations: I suggest to re-phrase the first strength 'This qualitative study elicits feedback from the Nigerian community regarding their emergency care needs in an attempt to improve the Nigerian emergency care system.' as the paper does not attempt to improve the emergency care system, but rather explores its limitations suggesting avenues for potential remedies.</p> <p>The used abbreviations need to be written out in full at first mention.</p> <p>The references need revision to ensure all adhere to the guidelines of the journal. At present, there are various mistakes and omissions. Reference 3, the BBC, is not a source of scientific knowledge and needs to be replaced.</p> <p>Level of interest</p> <ul style="list-style-type: none"> <li>- An article whose findings might be important to those with related research interests</li> </ul> <p>Quality of written English</p> <ul style="list-style-type: none"> <li>- Acceptable</li> </ul> <p>Statistical review</p> <ul style="list-style-type: none"> <li>- Not applicable</li> </ul>
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<b>REVIEWER</b>	Lambert Assoumou Inserm and Sorbonne university, iPLesp, Paris, France
<b>REVIEW RETURNED</b>	01-Oct-2020

<b>GENERAL COMMENTS</b>	The present study from Usoro Agnes et al. sought to identify Nigerians' perceptions of their emergency care system. The study highlights significant gaps in Nigerian emergency care system similar to those seen in most other countries in sub-Saharan Africa. The study was well conducted and their findings are conformed to that observed in other Sub-saharan Africa countries. The limitations of the study were clearly stated. I agree with the conclusion, as indeed, taking public perceptions into account when designing and implementing interventions to strengthen the emergency care system in Africa countries would benefit across Africa and save lives. Minor comment: Authors should define all abbreviations before their first use in the manuscript
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<b>REVIEWER</b>	Imran Hameed Khaliq Department of Public Health, University of Health Sciences, Lahore, Pakistan
<b>REVIEW RETURNED</b>	22-Oct-2020

<b>GENERAL COMMENTS</b>	This is an interesting and useful paper, which, as far as I am aware is original. I have a few concerns. My comments are available in the file attached. In addition, a section addressing research ethics with special reference to participant consent requires more explanation.  The reviewer provided a marked copy with additional comments. Please contact the publisher for full details.
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## VERSION 1 – AUTHOR RESPONSE

### Reviewer #1 Comments

Page 5: Introduction: It would be useful to frame the study within the present international policy environment, specifically SDG 3 on universal health coverage including financial protection. In addition, I suggest presenting the study within the outline of the challenges many LMIC face in their pursuit of universal health care in transitioning their health systems, focused in the past mainly on maternal and child health and acute infectious diseases, towards systems capable of offering a wider range of services, including management of chronic conditions as well as of trauma, in response to the changing circumstances of their populations, ie. urbanisation, changing lifestyles, and changing demographic profiles. The transition many of these countries face towards a triple burden of disease (infectious diseases, non-communicable diseases, and trauma/violence) requires corresponding transitions in the health systems caring for their populations.

Thank you for your feedback. We agree that presenting our study with the outline of the challenges many LMICs face in their pursuit of emergency care system development would indeed improve our study. In recognition, we have added discussion in our introduction section related to the challenges LMICs face while pursuing emergency care system development in the midst of prioritizing care towards infectious disease and maternal and child health. Additionally, we have also added discussions in our introduction section related to the prioritization of universal health coverage while developing an emergency care system.

Page 5: Many of the health system indicators presented would be more accessible when presented in a table. In view of the participants' references to financial hardship related to health care as well as to health financing, it would be good to include in the table with health system indicators in the introduction the information on health expenditure per person per year in Nigeria, as well as some idea of how much of that is out-of-pocket spending, as well as health insurance. Nigeria may have the biggest economy in Africa, but it also has the largest population, and per capita spending for health may still be inadequate. How much should it increase to be able to pay for adequate emergency health care services?

Thank you for the suggestion. We agree that including health system indicators related to health financing would strengthen our study. We have included in the discussions section detailed statistics related to health expenditure per capita and the percentage of out-of-pocket health expenditures in Nigeria compared to globally aggregated data. We chose to introduce this information in the discussions section because it strengthens our discourse on Nigerian specific health system challenges and opportunities. As an overview, we included the annual GDP per capita in Nigeria to emphasize the economic capabilities of the nation, in the introduction section. As it relates to what is considered adequate health spending for emergency health care services, there are many factors that must be considered in order to convey an opinion and is beyond the scope of our study.

Page 5-6: In addition to pointing out the limitations of the Nigerian health system in emergency care, it would be useful to describe which programs currently do receive priority in the health system, and how their performance is in the care for emergencies in those fields, for example, acute malaria infection or diarrhoea with dehydration in children, obstetric emergencies. It seems to me that other emergencies, such as care for acute complications of diabetes or cardiovascular disease, as well as for trauma like car accidents or interpersonal violence, are in a different category from the conditions mentioned before, that is, these likely have different limitations, particularly regarding technical capabilities, available protocols, equipment, etc. At present, all urgent conditions are heaped into one category with the same group of limitations, which I think is unlikely to correctly reflect reality on the ground.

Thank you for the feedback. We agree that describing the various programs that receive priority in the current Nigerian health system would add to our manuscript but our aim is to focus broadly on emergency care in Nigeria, and a review of specific emergency care management (i.e. management of acute diarrhea, or management of obstetrical emergencies) is beyond the scope of our study.

Page 6-7: Methods: The participants in this study were attendants at an emergency medicine symposium in Lagos, both health personnel and lay people. These participants are described as members of the public, local community members, which I find somewhat misleading, as that suggests an effort to recruit people representative of the general population of Lagos, if not Nigeria at least. The participants, however, were self-selected in their attendance at the conference, I suppose, while their participation in the study was thus a convenience sample from among self-selected people with an interest in emergency medicine, probably from within the Lagos population. I suggest finding a better description for the participants than members of the public or local community members. They might, for example, simply be called, emergency care symposium attendants.

Thank you for the feedback. We agree that the participants were self-selected individuals with interest in Emergency Medicine. We characterized the participants according to their job affiliation – healthcare professional versus non-healthcare professional. To make the distinction clear, we've removed the term "community member" and replaced it with "non-healthcare professional."

Page 7: The methods section does presently not include a positioning or description of the researchers' viewpoints on emergency medicine. It is stated that the conference was hosted by

WeBelieve Health, a non-profit organization. More information on the researchers' characteristics and perspectives needs to be included to enable more adequate interpretation of the study's results. What were the objectives of the symposium? What is the mission of the NGO involved? Are the researchers NGO staff? Is there a link with the Lagos University Teaching Hospital beyond the ethics approval? Are the researchers emergency health care staff?

Thank you. We recognize that our current outline may not have been very clear. For clarification, we provided more information about WeBelieve Health emphasizing that the researchers are not directly affiliated with the non-profit. We mention the objectives of the emergency medicine symposium and how it is in line with the mission

of WeBelieve Health, the host. We explain that our collaborators from Lagos University Teaching Hospital were only involved with data collection and not data management or data analysis. We additionally outlined the job titles of the researchers which includes emergency medicine physicians, a family medicine physician and a public health physician, and all of which who conduct global health research.

Page 8: A large majority of the participants are health care professionals, many of them medical doctors. How has this been addressed during the discussions in the focus groups? Were they grouped together with lay people and subordinate health care staff?

To clarify group assignments, we included our method of randomly assigning participants into groups by numbering off 1-7. This ensures a random grouping of healthcare and non-healthcare professionals into the focus groups.

Page 9: Data analysis was performed by two independent investigators. I suppose that means, analysing independently from each other. However, later in the same paragraph, these same investigators were again described as independent when conducting quality assessments of the results, which I find confusing. Did they do these assessments also independently from each other? Or were they investigators otherwise independent from the study?

Thank you for the feedback and agree that as written, our data analysis activities are not clear. We clarified the analysis with new wording – “Utilizing a team-based approach, we employed conventional content analysis to apply codes that emerged directly from the narrative data. Two research members, also referred to as investigators, coded independently by carefully exploring each transcript to ensure recognition of the most salient codes and patterns. The investigators then compared their applied codes and categorized the emerging codes into overarching themes using in-vivo descriptors embedded directly in the text. Shared decision making continued until group consensus was achieved. The investigators also conducted quality assessments of the results with the SRQR checklist[Supplement 2].”

Page 10. Results: it would be better to include in the presented quotations a reference of who among the participants was speaking (especially whether it was a medical doctors, health care staff, or lay person). In large parts of the text, it is not clear what are citations and what is text provided by the authors.

Thank you for this suggestion. All quotations were gathered from focus group discussions. To clarify, we updated the third column heading of table 2 to now read as “Representative quotes from Focus Group Participants.” At the beginning of each discussion group, we obtained demographic data and then assigned each person a random number. This number was used to record their quotes. This was to ensure that all participants felt empowered to speak freely and honestly particularly given the cultural environment in Nigerian healthcare where there is a prominent hierarchy tied to job titles. We

wanted every nurse, medical student, reporter, etc to feel comfortable speaking amongst physicians without reservation.

Page 15: For this reason, the majority of patients receive initial care by family members or bystanders who lack formal training resulting in many simply “fanning [you] with an

ipele (ipele is a head scarf).” Who states this, ‘the majority of patients’? A participant or the authors? The study did by no means verify whether the majority of patients receive family care or not. So, I suppose this is a quotation, but that is not clear from the current text. This aspect needs to be verified and corrected throughout the results section. It is crucial that the paper makes clear and gives priority to the participants’ voices, and that the researchers focus on the abstraction and interpretation of identified themes and implications.

Thank you for this feedback. We agree that the inclusion of quotations in the main text does not clarify whether the statement comes from a participant versus from the authors. All included quotes in the paper are directly obtained from the participants but to reduce confusion, we have corrected these statements and removed the quotations embedded in the text and limited them to table 2.

Page 20. I suggest changing the term ‘uncompensated care’. It seems to mean difficulties in paying for health services, but it is an awkward choice of words. Financial hardship related to health care might be a better choice.

Thank you for the suggestion. We have replaced “uncompensated care” with “financial hardship” when mentioned in the manuscript.

Page 21. I suggest changing ‘stewardship’ with ‘governance’, which has wider connotations.

Thank you for the suggestion. We have replaced “stewardship” with “governance” when mentioned in the manuscript.

Page 23. Discussion: Rather than discussing the findings of the study and comparing them with other studies and publications, the discussion seems to focus on presenting suggestions for emergency care system improvements. It is not clear whether these suggested remedies emerged in the focus groups from participants (if so, they need to be included under the section results), or whether they are suggestions from the authors.

This section needs re-writing, to first present an analysis of the study’s findings and their meaning and interpretation within the already available evidence on the topic. No new information should be presented in the discussion section (for example, page 24, information on the Nigerian ambulance system, belongs in the introduction, or woven in with the results when presenting the findings on pre-hospital services). Presently, none of the suggested improvements refer to scientific evidence that they might actually work, which is not acceptable. These suggestions, if indeed they originate from the authors, needs to be evidence-based.

Thank you for this very helpful and constructive feedback. We have restructured and rewritten large parts of the discussion to more clearly identify what findings emerged in the focus groups and which are from similar studies. We also compared our findings to similar studies and provided comparative evidence for suggested solutions that arose from the focus groups. We have added several citations to further support the suggested improvements we identify in the discussion. Finally, we relocated some text from the discussion to the introduction as suggested.

Key words: rather than twice including health systems, it might be better to change one entry to ‘emergency care’ or something similar.

Thank you for the suggestion. We have replaced “health system” with “emergency medical services” as a key word, which is also a MeSH term.

Strengths and limitations: I suggest to re-phrase the first strength ‘This qualitative study elicits feedback from the Nigerian community regarding their emergency care needs in an attempt to improve the Nigerian emergency care system.’ as the paper does not attempt to improve the emergency care system, but rather explores its limitations suggesting avenues for potential remedies. Thank you for the suggestion. We agree that we in fact explore more of the limitations of the Nigerian health system rather than its strengths and have rephrased the first bullet point to now read as “This qualitative study elicits feedback from both healthcare professionals and non-healthcare professionals regarding their emergency care needs.”

The used abbreviations need to be written out in full at first mention. Thank you for this constructive feedback. We have made sure to write out abbreviations at first mention.

The references need revision to ensure all adhere to the guidelines of the journal. At present, there are various mistakes and omissions. Reference 3, the BBC, is not a source of scientific knowledge and needs to be replaced.

Thank you for the feedback. We have reviewed the reference list and updated those that may not be a source of scientific knowledge.

#### Reviewer #2 Comments

The present study from Usoro Agnes et al. sought to identify Nigerians' perceptions of their emergency care system. The study highlights significant gaps in Nigerian emergency care system similar to those seen in most other countries in sub-Saharan Africa. The study was well conducted and their findings are conformed to that observed in other Sub-saharan Africa countries. The limitations of the study were clearly stated. I agree with the conclusion, as indeed, taking public perceptions into account when designing and implementing interventions to strengthen the emergency care system in Africa countries would benefit across Africa and save lives.

Minor comment: Authors should define all abbreviations before their first use in the manuscript.

Thank you for the comments and support of our manuscript. We have defined all abbreviations before their first use in the manuscript.

#### Reviewer #3 Comments

See file attached (bmjopen-2020-043869\_Proof\_hi (1).pdf)

This is an interesting and useful paper, which, as far as I am aware is original. I have a few concerns. My comments are available in the file attached. In addition, a section addressing research ethics with special reference to participant consent requires more explanation.

Thank you for your feedback. In methods, sub-section data collection and management, we mention that “small group facilitators obtained verbal consent from each participant at the beginning of each focus group discussion.”

Avoid abbreviations in the Key Words. Provide appropriate Keywords preferably using MeSH browser using the link given below: <https://www.ncbi.nlm.nih.gov/mesh/> Thank you for your feedback. We have removed abbreviations from the keywords.

Additionally, we have reviewed the referenced link and have provided keywords that are already indexed as a MeSH term.

Abstract: By whom the efforts were made? Why this is important to obtain the public's perception? Provide a brief background knowledge and significance of the study.

We agree that we should clarify by whom efforts were made, as well as the importance of obtaining the public's perception. We have removed the sentence "Efforts have been made to characterize the Nigerian emergency care system, but little input has been elicited directly from the community." And replaced it with "Commentaries published by healthcare professionals have characterized deficiencies in the Nigerian emergency care system and offered potential solutions. However, these commentaries have not included the perspectives of the Nigerian public. A more inclusive approach that includes feedback from the public may help policymakers improve the Nigerian emergency care system through better understanding of the needs, values and expectations of the community."

Abstract: It may not be appropriate to use the word 'significant' for the results drawn about the population that is not backed by inferential statistics. Provide a brief nexus between the public's perceptions and Nigeria's emergency care system. Need for study may make this abstract more meaningful for the readers.

Thank you for the feedback. We have replaced the wording of the conclusion of the abstract from "Significant shortcomings in prehospital and hospital care delivery as well as health system stewardship were identified. Healthcare professionals, policymakers, and community leaders should carefully consider the public's perception when designing and implementing interventions to strengthen Nigeria's emergency care system. If successful, these community-driven interventions may serve as a model to improve emergency care throughout Africa" with "The participants in this study identified shortcomings and opportunities to improve prehospital care, hospital care, and health system governance. The results of this study may help healthcare professionals, policymakers, and community leaders identify gaps in the emergency care system and offer solutions in harmony with the needs, values and expectations of

the community. If successful, these community-informed interventions may serve as a model to improve emergency care throughout Africa."

Introduction: What were the economic advances?

We have clarified the economic advancements by adding specific details of Nigeria's growth in GDP. Revised statement reads as "Nigeria's health system has struggled to meet the needs of an ever-growing population despite economic advances that have increased the annual gross domestic product (GDP) per capita from \$568 in 2000 to \$2,230 in 2019."

Introduction: 'Bed' or 'Beds'

We have revised the term to read as "bed."

Introduction: Public or private?

We have clarified that we are referring to a mix of public, private and faith-based institutional hospital beds.

Introduction: Provide a reference to this statement – "In Nigeria, that would translate to approximately 100,000 lives saved every year, or 300 lives every day."

Thank you for the feedback. We recognized that our calculations were off due to a typo, but have added a reference outlining that the Nigerian population is 200million with a crude death rate being 11 per 1000 people. Extrapolated this equates to a total death rate of 2,200,000 million per 200 million people per year. And with the published statistic that half of all deaths can be averted by an effective

emergency care system, that would equate to 1,100,000 million lives saved each year in Nigeria, or 3,013.69 lives per day. We have approximated these figures and updated our statement.

Methods: What about public involvement?

We have removed “public involvement” and revised the header statement to read as “Patient involvement.”

Methods: Show results up to two decimal points.

Thank you for this suggestion. We have revised the statistic to read as “43.42%”

Methods: Do not start the sentence with numerical numbers.

Thank you for this suggestion. We have written out the number “52” as “Fifty-two.”

Methods: Provide the occupation-wise complete proportion of the study participants especially for community members.

Thank you for this suggestion. We have provided an occupation-wise proportion of study participants in Table 1.

Methods: Table 1 – Remove this “Lagos, Nigeria” from “Demographic data of discussion group participants, Lagos, Nigeria”

Thank you for the suggestion. We have removed “Lagos, Nigeria” from the Table 1 title.

Methods: The focus group discussions were conducted in English. This is unnecessary to mention other languages.

Thank you for the suggestion. We have removed the term “local languages.”

Results: Do not start the sentence with numerical values.

We appreciate your feedback and have rewritten the sentence to read as “The vast majority of participants (90.00%) verbalized that they had personally witnessed an emergency, with 80.00% having witnessed an emergency on at least three separate occasions[Table 3].”

Results: If the care was not provided to the patients without the user fee than how it could be named as uncompensated care?

Thank you for your constructive and thoughtful input. We agree that without the user fee, it would not be appropriate to name the referred subsection as “uncompensated care.” We have renamed this section. It no longer reads as “Burden of uncompensated care,” and instead reads as “Financial considerations of emergency care.”

Discussions: Use abbreviation.

We have abbreviated “low-and-middle income country” which now reads as “LMIC.”

Discussion: Provide a reference to this statement – “And for those that are, the ability of these ambulances to get to the scene is difficult with the current road traffic system.” Thank you for your suggestion. We have included a reference to support this statement.

Discussions: Name few such countries – “Some countries enact policies that require emergency care to be rendered irrespective of a patient’s ability to pay.”

Thank you for your suggestion. We have included an example of a county.

## VERSION 2 – REVIEW

<b>REVIEWER</b>	Diederike Geelhoed Independent, Spain
<b>REVIEW RETURNED</b>	09-Dec-2020

<b>GENERAL COMMENTS</b>	<p>Thank you for sharing the revised paper with me for another review. As before, the transition towards a broader range of services, including emergency medicine, required in health systems in many low-income countries, is an important topic which has not yet received sufficient attention. Therefore this paper on perspectives on emergency care in Nigeria among interested parties, would (in my opinion) be worth publishing. However, I still suggest this manuscript would benefit from major revision before considering publication.</p> <p><b>Major Revisions</b></p> <ul style="list-style-type: none"> <li>• The abstract still mentions ‘community members’ as participants, although this has been changed in the body of the paper. Please adapt the abstract accordingly.</li> <li>• The key words again include two phrases which are practically synonyms: ‘developing countries’ and ‘low and middle income country (sic)’. If four key words are required, is it not possible to find an appropriate term that really contributes an additional aspect of the paper?</li> <li>• Strength and limitations: the first bullet point now mentions ‘non-healthcare professionals’. Were all participants then professionals of some kind? However, later in the paper there is mention of lay people. Please rephrase accordingly.</li> <li>• Strength and limitations: the third bullet point refers to the small sample size and the lack of generalizability. However, the purpose of qualitative studies is never to generalize on the basis of a representative sample size, that is something which fits within a quantitative paradigm. Please adapt accordingly, also in the limitations paragraph at the end of the text.</li> <li>• The presentation of the results also does still not reflect adequately the voices of the participants. The only quotes are shown in a table, and are not attributed to particular participants through a code, for example, something like ‘participant 2, male, health professional, focus group 3’ or ‘participant 4, female, lay person, focus group 5’. As such, it is not clear whether the quotes are from a variety of participants or rather from one or two vocal persons among the participants.</li> <li>• In addition, there is an inappropriate use of percentage figures. The proportion of conference participants who also took part in the focus groups, 66 of 152, might include the percentage of 43% (instead of 43,42% which suggest too much precision; one extra participant would change the percentage immediately to 44%, not too 43,43%). Later in the text (page 14), there is mention a ‘vast majority’ saying they witnessed emergencies, in 90.00% and 80.00% of the participants. Those percentages would correspond to 59,4 and 52,8 participants respectively, which of course is incorrect. Why not just mention the absolute numbers? Or leaving it at ‘a vast majority’, or ‘nearly all’?</li> <li>• The text in the results section includes many stories which I presume were told by participants, however, they are not presented in the voice of those participants, and neither include identification of their sources. Often in qualitative research, the results are presented with part of the discussion content mixed in, at every stage trying to provide participants’ quotes which illustrate certain abstractions made from the findings, and linking them with other aspects known</li> </ul>
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	<p>about the topic. The quotes are often set in another typeface, to clearly show whose voice they reflect.</p> <ul style="list-style-type: none"> <li>• The contributions from the participants regarding opportunities for improvements are findings and should be included in the results paragraph. The recommendations presently included in the discussion take the generalization of the study findings quite far, despite this being a qualitative study on ‘values, needs, and expectations’ and ‘perspectives’. Presently there is little contrasting of the findings with other (qualitative) studies reflecting staff and beneficiaries’ opinions on quality and accessibility of care (emergency or not). It seems likely that the discontent found with emergency care is a reflection of a wider dissatisfaction with the Nigerian health system in general, given the comments about staff, financial costs, etc.</li> <li>• Joining together the contents of results and part of the discussion, taking care to present them in a way which clearly reflects the voice of the participants and the qualitative paradigm this study claims to use, would leave a much shorter discussion and conclusions section, which then could refer back to the ‘better understanding of the needs, values and expectations of the community’ regarding emergency medical services that this study claims to contribute to the national and international debate on the matter. I suggest to adapt the writing style of this paper accordingly, perhaps with the aid of an editor with experience in the writing of reports on qualitative studies.</li> </ul>
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<b>REVIEWER</b>	Imran Hameed Khaliq Department of Public Health, University of Health Sciences, Lahore, Pakistan
<b>REVIEW RETURNED</b>	17-Dec-2020
<b>GENERAL COMMENTS</b>	All corrections made by the authors are satisfactory. I hereby recommend the acceptance of this article.

### VERSION 2 – AUTHOR RESPONSE

#### Reviewer #1 Comments

Thank you for sharing the revised paper with me for another review. As before, the transition towards a broader range of services, including emergency medicine, required in health systems in many low-income countries, is an important topic which has not yet received sufficient attention. Therefore, this paper on perspectives on emergency care in Nigeria among interested parties, would (in my opinion) be worth publishing. However, I still suggest this manuscript would benefit from major revision before considering publication.

Thank you for your feedback. We hope that our revisions are satisfactory as we too believe that highlighting the topic and role of emergency care systems in low-and-middle income countries is important in the literature.

The abstract still mentions ‘community members’ as participants, although this has been changed in the body of the paper. Please adapt the abstract accordingly.

Thank you for the feedback. To clarify the participants in the focus group discussions, we removed the term “community members” and replaced it with “participants of an emergency medicine symposium.”

The key words again include two phrases which are practically synonyms: ‘developing countries’ and ‘low and middle income country (sic)’. If four key words are required, is it not possible to find an appropriate term that really contributes an additional aspect of the paper?

Thank you for the feedback. We have revised our keywords to be composed of MeSH Terms indexed on the Medline database. ‘Developing countries’ was removed. ‘Emergencies’ and ‘Nigeria’ were added. Finalized Key Words – Qualitative research; Emergency medical services; Emergencies; Nigeria; Low- and middle-income country.

Strength and limitations: the first bullet point now mentions ‘non-healthcare professionals’. Were all participants then professionals of some kind? However, later in the paper there is mention of lay people. Please rephrase accordingly.

Thank you for the feedback. We recognize that our word choice can be misleading, and no, not all participants are classified as professionals. We have rephrased the first bullet point to now read as “This qualitative study elicits feedback from the Nigerian community regarding their emergency care needs.”

Strength and limitations: the third bullet point refers to the small sample size and the lack of generalizability. However, the purpose of qualitative studies is never to generalize on the basis of a representative sample size, that is something which fits within a quantitative paradigm. Please adapt accordingly, also in the limitations paragraph at the end of the text.

Thank you for the feedback. We agree that qualitative studies are not inherently designed to be generalizable but wanted to emphasize that despite our aim to outline the perspectives of the Nigerian community, given the sample size of participants in our focus groups, we cannot take their opinions as those that generalize the opinions of the Nigerian populace despite our assumptions. In response to your suggestion, we have edited the third bullet point to now addresses the fact that “while our findings are robust, they should be interpreted in the context of the focus group participants.”

The presentation of the results also does still not reflect adequately the voices of the participants. The only quotes are shown in a table, and are not attributed to particular participants through a code, for example, something like ‘participant 2, male, health professional, focus group 3’ or ‘participant 4, female, lay person, focus group 5’. As such, it is not clear whether the quotes are from a variety of participants or rather from one or two vocal persons among the participants.

Thank you for the feedback. Analyzing the narrative transcripts focused on identifying the themes amongst the discussions that emerged from the data and summarizing these themes rather than focusing on an individual participant’s viewpoint. We believe that if multiple participants voiced the same, or similar, sentiment, that it strengthens our claim for outlining the overall perspective participants have regarding the emergency care system in Nigeria. We hope that this is made clear in our results section. But to clarify the voice of the quotations in Table 2, we have specified which focus group participant and group the quotes emerged from by cross referencing the quotations from the

transcripts organized in NVIVO. We unfortunately are not able to further identify if the participant is a healthcare professional or not, unless the participant specifically referred to him/herself as one, as the assistant facilitators that collected the data (including verbatim transcription of the discussions) only tallied the total number of healthcare professionals versus non-healthcare professional present in each group. They did not label each participant according to their job title and therefore we can only present the participant number and from which focus group the individual attended.

In addition, there is an inappropriate use of percentage figures. The proportion of conference participants who also took part in the focus groups, 66 of 152, might include the percentage of 43% (instead of 43,42% which suggest too much precision; one extra participant would change the percentage immediately to 44%, not too 43,43%). Later in the text (page 14), there is mention a 'vast majority' saying they witnessed emergencies, in 90.00% and 80.00% of the participants. Those percentages would correspond to 59,4 and 52,8 participants respectively, which of course is incorrect. Why not just mention the absolute numbers? Or leaving it at 'a vast majority', or 'nearly all'?

Thank you for the feedback. We have revised the percentage of participants participating in the conference (66/152) to 43% instead of previously documented as 43.42%. We have removed the term "vast majority" along with the corresponding percentage and replaced it with "nearly all." We have removed the percentage corresponding the second half of the sentence and replaced it with "many." The sentence now read as: "Nearly all of the participants verbalized that they had personally witnessed an emergency, with many having witnessed an emergency on at least three separate occasions."

The text in the results section includes many stories which I presume were told by participants, however, they are not presented in the voice of those participants, and neither include identification of their sources. Often in qualitative research, the results are presented with part of the discussion content mixed in, at every stage trying to provide participants' quotes which illustrate certain abstractions made from the findings, and linking them with other aspects known about the topic. The quotes are often set in another typeface, to clearly show whose voice they reflect.

We appreciate your feedback. Our initial draft embedded direct quotes from participants but extended the main text beyond the maximum word count encouraged by BMJ Open. And being that many of the quotes were quite similar and repetitive, we offered a summary of the many voices by focusing on the themes that emerged from the various focus group discussions and supported this with the selected quotations embedded in Table 2. Additionally, we added references to the specific speaker of many of the direct statements within the results section in order to properly credit the respective participant for their statement. I hope this clarifies our approach.

The contributions from the participants regarding opportunities for improvements are findings and should be included in the results paragraph. The recommendations presently included in the discussion take the generalization of the study findings quite far, despite this being a qualitative study on 'values, needs, and expectations' and 'perspectives'. Presently there is little contrasting of the findings with other (qualitative) studies reflecting staff and beneficiaries' opinions on quality and accessibility of care (emergency or not). It seems likely that the discontent found with emergency care is a reflection of a wider dissatisfaction with the Nigerian health system in general, given the comments about staff, financial costs, etc.

Thank you for the feedback. We structured the interview guide to elicit participant perspectives on the Nigerian emergency care system. And once obtained, we then asked for their input on the particular

challenges and opportunities for improvement. We agree that the data presented is composed primarily from the participants which was our aim, and wanted to structure the discussions to outline plausible opportunities, or next steps, from the perspective of the study participants, which to our knowledge, has not been done before.

Joining together the contents of results and part of the discussion, taking care to present them in a way which clearly reflects the voice of the participants and the qualitative paradigm this study claims to use, would leave a much shorter discussion and conclusions section, which then could refer back to the 'better understanding of the needs, values and expectations of the community' regarding emergency medical services that this study claims to contribute to the national and international debate on the matter. I suggest to adapt the writing style of this paper accordingly, perhaps with the aid of an editor with experience in the writing of reports on qualitative studies.

Thank you for your feedback. We have made revisions to the discussions to ensure that it clearly reflects the voice of the participants while comparing and contrasting the suggested opportunities for addressing the challenges of the Nigerian emergency care system with previously published works.

#### Reviewer #3 Comments

All corrections made by the authors are satisfactory. I hereby recommend the acceptance of this article.

Thank you for taking the time to review our manuscript. We appreciate your endorsement.

### VERSION 3 – REVIEW

<b>REVIEWER</b>	Diederike Geelhoed Independent, Spain
<b>REVIEW RETURNED</b>	16-Mar-2021
<b>GENERAL COMMENTS</b>	Thank you for this second revision of this paper on emergency care in Nigeria. In my opinion this second revision has much improved the paper, and I have no further comments or suggestions.