







# BMJ Open Perspectives on the current state of Nigeria's emergency care system among participants of an emergency medicine symposium: a qualitative appraisal

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## ABSTRACT

**Introduction** Emergency care systems provide timely and relevant care to the acutely ill and injured. Published commentaries have characterised deficiencies in the Nigerian emergency care system and offered potential solutions but have not included the perspectives of the Nigerian public. A more inclusive approach that includes feedback from the public may help improve the Nigerian emergency care system through better understanding of the needs, values and expectations of the community.

**Methods** Participants of an emergency medicine symposium participated in focus group discussions that were randomly divided into small groups led by two trained facilitators. These facilitators asked open-ended, semistructured questions to lead discussions in the English language. Participant responses were audio-recorded and transcribed verbatim into transcripts. Two independent investigators employed conventional content analysis to code the transcripts until thematic saturation was achieved.

**Results** Three descriptive themes emerged characterising the current state of Nigeria's emergency care system as it relates to prehospital care delivery, hospital care delivery and health system governance: rudimentary, vulnerable and disconnected. At the prehospital level, concepts revolved around emergency recognition and response, ambulance and frontline providers, and cultural norms. At the hospital level, concepts centred around the health workforce, clinical competency, hospital capacity and the burden of financial hardship. At the health system level, concepts concentrated on healthcare access and healthcare financing. Opportunities for emergency care system improvement at each component level were identified and explored.

**Conclusions** 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, policy makers 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 systems throughout Africa.

## Strengths and limitations of this study

- This qualitative study elicits feedback from the Nigerian community regarding their emergency care needs.
- This study used a collaborative approach with local Nigerian research partners.
- While our findings are robust, they should be interpreted in the context of the focus group participants.

## INTRODUCTION

On 28 May 2019, the Seventy-second World Health Assembly unanimously passed a resolution recognising the essential role emergency care systems play in preventing death and disability from acute illness and injury.<sup>1</sup> Many low-and-middle income countries (LMICs) recognise the essential role of emergency care systems but are challenged in their pursuit of developing their emergency care system because they have traditionally prioritised resources on infectious diseases and maternal and child health.<sup>2,3</sup> Universal health coverage, which ensures access to quality and effective health services without the burden of financial hardship, should be a priority objective for LMICs while developing their respective emergency care systems.<sup>4</sup>

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 per capita from \$568 in 2000 to \$2230 in 2019.<sup>5,6</sup> When compared globally, Nigeria is ranked 142nd out of 195 countries when evaluating its performance on a comparative healthcare access and quality index.<sup>7</sup> Further, Nigeria frequently loses its trained healthcare providers to other countries, suffering from one of the highest brain drains globally.<sup>8</sup> Nigeria's ability to deliver accessible quality medical care is limited by its current



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healthcare infrastructure. Health facilities are poorly resourced and understaffed, especially in rural areas.<sup>9</sup> Despite having the largest economy in Africa, Nigeria has 0.5 hospital beds per 1000 people, which falls below the average of 1.0 hospital bed per 1000 people in other sub-Saharan African countries.<sup>9 10</sup> Moreover, there are only 47 tertiary hospitals—a mix of public, private and faith-based institutions—in the country with a population of over 200 million people.<sup>11</sup>

It is estimated that over half of all deaths in LMICs can be averted by effective emergency care delivery.<sup>12</sup> In Nigeria, that would translate to approximately 1 000 000 lives saved every year, or 3000 lives every day.<sup>13 14</sup> Like in most LMICs, Nigerian emergency departments are run by providers with little to no dedicated specialty training in emergency care as there are no recognised postgraduate training programmes in emergency medicine.<sup>15 16</sup> It is estimated that, of the 1.6 million deaths recorded annually in Nigeria, 10%–15% occur in emergency departments.<sup>17</sup> Lagos is one of the few states in Nigeria with a public ambulance transporting system, but many of these ambulances are non-functional.<sup>18</sup> And for those that are, the ability of these ambulances to get to the scene is difficult with the current road traffic system.<sup>19</sup> Commentaries published by healthcare professionals have characterised deficiencies in the Nigerian emergency care system and offered potential solutions.<sup>20–22</sup> However, these commentaries have not included the perspectives of the Nigerian public. A more inclusive approach that includes feedback from the public may help policy makers improve the Nigerian emergency care system through better understanding of the needs, values and expectations of the community.

We sought to identify the public's perceptions of Nigeria's emergency care system at an emergency medicine symposium in Lagos, Nigeria, on 28 March 2020. Members of the local community—both health professionals and laypeople—gathered to share perspectives on strengthening the Nigerian emergency care system and ultimately saving lives. We facilitated discussions with symposium participants to better understand their impression of Nigeria's emergency care system—including the current state of healthcare delivery, challenges to seeking and providing timely emergency care, and opportunities for improving on the emergency care system so that it meets the needs of the populace.

## METHODS

### Study design

Focus groups are recognised as ideal avenues for investigating complex and unique concepts, particularly when they are dependent on obscure factors or determinants.<sup>23 24</sup> We invited participants in an emergency medicine symposium—an ideal setting to gather members of the public with insight and interest—to participate in focus group discussions centred on perceptions of the emergency care system in Nigeria. The symposium was

**Table 1** Demographic data of discussion group participants

		Number of participants (n=66)	Percentage
Sex	Male	33	50.0
	Female	33	50.0
Occupation	Physician	29	43.9
	Nurse	3	4.5
	Medic	19	28.8
	Medical student	1	1.5
	Non-healthcare professionals	14	21.2

hosted by WeBelieve Health, a non-profit organisation, in Lagos, Nigeria. The mission of WeBelieve Health is to increase access to quality care for Nigerians and to facilitate knowledge sharing to improve healthcare delivery.<sup>25</sup> The objective of the symposium was to outline the current state of emergency medicine in Nigeria and to brainstorm strategies to improve emergency care delivery in the country. The researchers all conduct research in global health, and they are composed of emergency medicine physicians, a family medicine physician and a public health physician.

### Patient involvement

There was no patient involvement in the design, conduct, reporting or dissemination plans of our research.

### Recruitment of participants

Participants were made aware of our intention to conduct focus group discussions at the start of the symposium. Participation was voluntary and without restriction or incentive. A total of 66 symposium attendees, 43% of the total 152 symposium registrants, agreed to participate. Fifty-two participants were healthcare professionals, which included medical officers, surgeons, nurses and medics, and 14 were non-healthcare professionals, which included reporters, business professionals and policy makers (table 1). In order to ensure a random grouping of healthcare and non-healthcare, participants were divided by numbering off 1–7 to form groups of 8–11 people.

### Data collection and management

We collaborated with the Department of Community Health and Primary Care at the University of Lagos College of Medicine and Lagos University Teaching Hospital (LUTH) to facilitate the seven focus group discussions. Facilitators from LUTH were only involved with data collection and not data management or analysis. Each group was led by two facilitators; one facilitator served as the moderator and the other facilitator served as the assistant. Moderators were experienced in qualitative data analysis and conducting focus groups. Assistants

were community volunteers and were provided same-day training on the principles and processes of qualitative data collection and management. Each facilitator was fluent in English and pidgin English. The focus groups were conducted in English language.

Small group facilitators obtained verbal consent from each participant at the beginning of each focus group discussion. Facilitators used open-ended, semistructured questions predeveloped and included in an interview guide adopted from focus group scripts used in a Zambian pilot study<sup>26</sup> (online supplemental file 1). The script was designed to capture participant opinions specifically about emergency care, making it an excellent template to use, with adaptation, in our study. The focus groups were audio-recorded with a digital voice recorder and transcribed verbatim in English by the facilitator assistant into Microsoft Word 13, V.15.0. NVivo V.12, a computer-assisted qualitative data analysis software, was used to facilitate data management and organisation.

### Data analysis

Using a team-based approach, we employed conventional content analysis to apply codes that emerged directly from the narrative data. Two research members 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 categorised 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 Standards for Reporting Qualitative Research (SRQR) checklist<sup>27</sup> (online supplemental file 2).

## RESULTS

The interview guide was developed to explore the participants' experiences and interactions with the emergency care system at the prehospital setting, the hospital setting and at the health system level. Participants further characterised their perceived challenges at each of these sectors as it relates to prehospital care delivery, hospital care delivery and health system governance. Challenges were classified by descriptive themes according to the most commonly used terms by the focus group participants. The descriptive themes were rudimentary, vulnerable and disconnected (table 2).

### Prehospital care delivery

Participants acknowledged that emergencies are very common but that poor conditions and the absence of first aid supplies lead them to consider the prehospital system as *rudimentary*, which was a repeated descriptor for the undeveloped, or as participant 1 of focus group (FG) 1 and participant 6 of FG 5 stated 'non-existent', infrastructure currently in place to deliver care to patients at the scene of injury or illness. It also represented the

community's understanding of basic life support interventions such as performing cardiopulmonary resuscitation (CPR). An overall impression was that effective and prioritised interventions in prehospital care delivery would result in the biggest impact to Nigeria's emergency care system.

### Emergency recognition and response

The first step in emergency response is recognising the emergency. Participants generally defined an emergency as any condition that, if not provided urgent attention, will result in loss of life or long-lasting disability. Nearly all of the participants verbalised that they had personally witnessed an emergency, with many having witnessed an emergency on at least three separate occasions (table 3). Although many stated that they are willing to help a victim in need of emergency care, they lack training in providing basic life support, and the first aid equipment needed to facilitate care delivery is not readily available. Participant 6 from FG 6 mentioned a time when he witnessed a woman being hit by an *okada* (*okada is a common motorcycle taxi in Nigeria*). He did not offer help because he did not have a first aid kit, and therefore he did not feel empowered to provide care without medical supplies. For this reason, the participant mentioned that the majority of patients receive initial care by family members or bystanders who lack formal training.

### Ambulances and frontline providers

There were disagreements related to the presence of a universal access number that individuals can call to report and request emergency help. Multiple numbers were identified as the universal emergency access number in Nigeria: 199, 112 and 122. The most recognised number was 122, although many discussed that it was unreliable. If successful in reaching an operator to dispatch emergency personnel, the next challenge is having the ambulance reach the patient in a timely manner. Many participants attributed delay in first responder arrival to poor roads and excessive traffic. Also reported as contributing to delayed ambulance arrival to the scene is that ambulances are generally not granted the right-of-way when travelling. Many of the medics reported an average of 1–2 hours to get to the scene of injury or illness, irrespective of where you live, and then an additional 1–2 hours to get to the nearest hospital. The result is that the vast majority of patients arrive at a healthcare facility by private vehicle, taxi service, public transit or by foot. Participant 1 from FG 4 recalled an incident when a pregnant woman was seen in a clinic and noted to have an elevated blood pressure. She was sent by public transportation to go to the hospital. Formal transportation was not arranged, and she had a seizure on the bus and died shortly thereafter, before reaching the hospital. Even when an ambulance does arrive at the scene, there is no standardised approach to the care of injured or ill patients. Medics are prehospital personnel who transport patients by ambulance to clinics or hospitals. Medics who were present

**Table 2** Thematic categories and supportive quotes

Overarching theme	Subtheme categories	Representative quotes from focus group participants
Rudimentary	Emergency recognition and response	<p>“Patients die because, [even if] we can provide help to the person, we don’t have the means to help.” Participant 1, FG 1</p> <p>“Everybody should know how to do CPR so when somebody drops dead, they don’t start pouring water and start screaming around, which is what we do, They start running around and forcing water down the person’s mouth.” Participant 5, FG 3</p>
	Ambulance and frontline providers	<p>“There is no guarantee that first responders will get there on time, or that the person is going to get the desired help, or that they would get to the hospital on time. There is no guarantee that there won’t be traffic. Like all the odds are stacked against you., so you rather not bother.” Participant 9, FG 3</p> <p>“The police will stop the ambulance asking them where they are going, even with a patient on board.” Participant 8, FG 3</p>
	Cultural considerations	<p>“For instance, you want to do CPR for someone and [it] requires you to touch the person. You will not have the time to start explaining what you want to do; and if you go ahead, you may not even leave there alive!” Participant 8, FG 1</p> <p>“Helping people in emergency situations, one can be tagged as a culprit. If I see someone on the road who requires emergency care and I stop to help, maybe put the person in my car. If anything happens to the person and I’m stopped by FRSC [Federal Road Safety Corps], they always tend to assume the Good Samaritan is the culprit.” Participant 7, FG 5</p>
Vulnerability	Healthcare workforce	<p>“In the hospital, you could see somebody passing coca cola urine right there sitting on the floor; you see another person convulsing still on the floor; then you look and there is just only one nurse trying to take care of a gamot of patients.” Participant 10, FG 4</p> <p>“There’s a kind of brain drain. Everybody is no longer motivated as before. People are like - what am I doing here? After all my mates or colleagues [abroad], they are out there getting well paid and seeing results and they can work happily. They are in a better environment. But you are here just stressed out. You can’t even help the patient as you have loved to. There are so many, you know; they just get demotivated.” Participant 7, FG 4</p>
	Clinical competency	<p>“I was not well equipped in terms of training so I had to train myself in ACLS, BLS, and ATLS and that gave me more confidence.” Participant 10, FG 4</p> <p>“A patient with GCS 3, some of our colleagues actually transfer these patients with no airway or IV access and this reduces the chances of survival for the patient.” Participant 2, FG 5</p>
	Hospital capacity	<p>“You can’t do investigations in emergencies. You need the results of your investigations in minutes. When you send an investigation the person comes back to say it will be ready the following day. Or even the next week.” Participant 1, FG 6</p> <p>“It was my first clinical exposure ever... The doctor on call had a patient but there was no bed space; there were no gloves. He told us to go anywhere to get gloves. It was a head injury and the man’s head was practically held together by bandages getting soaked and there were no gloves in the whole A&amp;E. We practically watched the patient die because there were no gloves anywhere.” Participant 8, FG 6</p> <p>“I picked up a patient in an ambulance. It was a case of head injury. I took him to(hospital 1); there was no bed space. He was bleeding from all orifices. It was terrible and all efforts to arrest the bleeding proved abortive. They referred to(hospital 2). I got to(hospital 2); no bed space. So they said we should go to spill over. Patient had nothing on him - no phone, no relatives. In spillover, you must pay money, so I called my boss. He said to take him to the(hospital 3). I got there and they say they cannot be managed; I was referred to(hospital 4). On our way to(hospital 4), the patient expired.” Participant 3, FG 6</p>
	Financial considerations of emergency care	<p>“Most times money is a hindrance because most emergency [departments] wouldn’t or may not attend to you if you don’t have money on you, without a proof that you are going to pay.” Participant 1, FG 3</p> <p>“Sometimes we need adrenaline. We need to resuscitate the patient. We don’t have it in our crash cart. Then we need the patient to get it. Before the patient will get it, it’s more than 30 minutes and the patient is already dead.” Participant 2, FG 5</p>

Continued

**Table 2** Continued

Overarching theme	Subtheme categories	Representative quotes from focus group participants
Disconnected	Healthcare access	<p>“It shouldn’t be on us to be doing this, it should be on the government; the government should do this. So whatever we will talk about today, it should be focused on getting the government to work on this, so that all the burdens stacked against us will be taken away.” Participant 3, FG 3</p> <p>“In Nigeria, we don’t have a problem with drafting down laws, our problem is in enforcing those laws. And unfortunately, those that have been charged with doing that are our problem. So, someone has to police the police.” Participant 5, FG 3</p> <p>“Most of these patients are already there [at the church or mosque] where they are praying for them. And when they are almost dying, they come to the hospital.” Participant 10, FG 4</p>
	Healthcare financing	<p>“To be very honest, if you bring money, you can easily be admitted in a private ward and you get everything you need.” Participant 8, FG 6</p> <p>“I personally believe that every single Nigerian is just one major health crisis from being in abject poverty, which means that we are all, like, at risk technically.” Participant 8, FG 6</p>

**Table 3** Types of emergencies most commonly referenced

Trauma	<p>Falls</p> <p>Road traffic accidents</p> <p>Mass casualty incidents</p>
Medical	<p>Asthma</p> <p>Malaria</p> <p>Stroke</p> <p>Perforated peptic ulcer</p>

discussed their experience with feeling unsafe transferring patients, particularly trauma patients, who require well-coordinated patient handling to prevent cervical spine injury.

#### Cultural considerations

Many participants, primarily healthcare providers, described their fear of retribution for delivering care outside of the hospital environment due to weak Good Samaritan protections. One physician, participant 8 of FG 4, recounted an experience of his colleague who was jailed for providing care to a patient and then transporting the patient in her private vehicle to the hospital. The patient ultimately succumbed to his injuries on arrival to the hospital, and the physician was arrested by the police while they investigated the cause of injury. Other healthcare providers echoed this experience providing their own stories of similar circumstances where either themselves or colleagues were subject to harassment for simply providing prehospital care. Participant 6 of FG 1 recalled an incident where a man in a rural part of Nigeria was performing CPR on a female patient who suddenly collapsed. The neighbours reported the man to the girl’s father as trying to kiss and fondle the girl instead of trying to save her life.

#### Hospital care delivery

Participants discussed hospital care delivery, with *vulnerability* being a recurrent theme related to the workforce, clinical competency and hospital capacity. Many healthcare workers reflected on their sense of helplessness when caring for the ill and injured, while many laypersons dwelled on their fears of becoming ill or injured and being cared for in the current emergency care system. When surveyed on whether they would seek care in Nigeria versus abroad if they had the option, the vast majority answered abroad.

#### Health workforce

Healthcare workers in the groups shared clinical experiences with cases where alternative or less invasive interventions were not considered because of the lack of qualified personnel. An orthopaedic surgeon, participant 7 of FG 3, recalled a patient who presented to the hospital after he was run over by a truck and suffered a crush injury to the leg. Because of the delay presenting to the hospital and the extent of injury to the leg, the decision was made

to amputate and he was a part of the operative team. He discussed his regret that, had there been a qualified surgeon with the capabilities of vascular and small nerve reconstruction, the man's leg could have been saved.

Healthcare participants who worked in rural settings discussed their frustrations with the inequitable distribution of the healthcare workforce, stating that it is generally concentrated in major cities such as Lagos, Ibadan and Abuja. Many voiced that they felt overwhelmed and described many symptoms of burn out. Identified contributions to clinical exhaustion were poor training, inadequate skills acquisition, high patient-to-provider ratios, lack of security and insufficient administrative support. Many stories were told of incidents when patients and their families physically assaulted physicians because they disagree with their recommendations, are annoyed with long waiting times or are frustrated with care delivery. As participant 7 of FG 4 put it, morale and motivation is lacking.

#### Clinical competency

Many healthcare participants admitted to inadequate training in triage. Participant 6 of FG 6 shared an incident when a patient was found to be aggressive. To address this patient's aggression, they administered diazepam, which works as a sedative. When this did not work, they administered chlorpromazine, which is an antipsychotic. Once the patient calmed down, they searched her phone and called many contacts. Eventually they reached her sister, who informed the team that the patient was diabetic. Only then did the team check her blood sugar, revealing that it was dangerously low. With this new information, they began resuscitation with blood glucose and she eventually recovered, but the delay in glucose administration could have resulted in irreversible brain damage and even death.

#### Hospital capacity

Participants 7 and 11 of FG 2, who work in an emergency department, spoke about the difficulty of accepting patients due to the space limitations. For this reason, many patients are refused entry and referred to other hospitals. A general sentiment though among participants was that if you are privileged and know the right people, you can get around limited hospital capacity. As participant 2 of FG 4 shared, he had a relative who needed oxygen, but when they arrived at the hospital, there was no space. Fortunately, they knew the governor and called him. Moments later, the participant's relative was admitted.

An additional limitation to care delivery, as noted by participants, is the availability of medical equipment and supplies. Many scrutinised the baseline scarcity of basic personal protective equipment like gloves. Participant 5 of FG 6 mentioned that staff are encouraged to reuse gloves while at work and that if a patient wants the staff to change their gloves when caring for them, then the patient themselves would need to buy and supply

the hospital staff with gloves. Participant 1 of FG 5 uses aprons or bed sheet linens to cover his hands in place of gloves. Further impediments related to laboratory and radiologic investigations also delay care. Healthcare providers mentioned that it may take days to get laboratory results back. Others discussed the difficulty obtaining radiographic studies such as X-rays, CT scans and MRI.

#### Financial considerations of emergency care

Participant 6 of FG 6 shared an intimate story of her relative who was in respiratory distress. They took him to three hospitals before he was accepted and provided with oxygen. But by this time, it was too late and he eventually died. He was turned away from the two nearest private hospitals because of the inability to pay. Participant 9 of FG 3 discussed the dichotomy experienced among Nigerians based on socioeconomic status. One woman, she recalled, had a minor motor vehicle accident but because of her financial status, she was immediately taken to the nearest hospital, admitted within minutes and tended to by various medical and surgical specialties. On the other hand, another man, involved in a traffic accident, arrived at the hospital unconscious, and care was delayed because he did not have money. After many calls to his family to secure funding, he was eventually cared for but unfortunately succumbed to his injuries. Participant 4 of FG 6 recalled an emotional story of a young child who fell on an iron rod which burned her abdominal wall to the point of exposing her viscera. She needed surgery but the family did not have the funds. The patient was admitted but waited many days until the medical students could raise funds to cover the procedure.

#### Health system governance

Nigeria's healthcare system is 'still in the pipeline' as participant 2 of FG 6 stated, resulting in *disconnected* coordination and collaboration among essential stakeholders, agencies and facilities relevant to emergency care delivery. The focus of health system challenges and solutions, among participants, centred on the functions of the central federal government and its responsibility in facilitating healthcare access and financing.

#### Healthcare access and financing

Many participants voiced their frustration that various components of the health system function in silos rather than in an integrated manner. An identified barrier to improvements in hospital care is the bureaucratic environment within the federal government and that there does not seem to be a centralised office or agency coordinating healthcare delivery at the national level to ensure equitable access at the state and local level. Participants discussed the current National Health Insurance Scheme (NHIS), which was meant to serve as a solution and provide financial insurance for those seeking healthcare services.<sup>28</sup> An issue recognised by healthcare workers is that if a patient comes in with acute ailment, you have to first send a code to the NHIS before rendering care

to receive pre-approval for care rendered. And until you receive approval, all care provided prior to a notification from the NHIS is not covered, which as participant 6 of FG 6 stated, negates its utilisation in emergency situations.

Many participants identified the unaffordable cost for medical care as the reason patients seek care with traditional or alternative healthcare providers. It is not until these remedies fail that many patients present to a clinic or hospital. For example, many patients cannot afford the cost of antiepileptic medications. Participant 5 of FG 3 described the common practice of burning the legs of a convulsing child. This practice is thought to rid the child of evil spirits causing the seizure. After this fails, the child is brought to a hospital, having now suffered complications of both seizures and burns. The overall impression of participants was that the aim of sustainable healthcare access and financing is to reduce and eventually eliminate health disparities, particularly those created by economic privilege.

## DISCUSSION

The participants identified the *rudimentary* components of emergency response, prehospital infrastructure and community knowledge deficit of basic life support. The group provided examples of the *vulnerabilities* intrinsic to hospital care delivery such as an inadequate health workforce, deficient clinical competency for managing the acutely ill and injured, poor hospital capacity and multiple instances of delayed care because of poverty. Additionally, the participants revealed the *disconnection* between policies aimed at ensuring healthcare access and financing and the actual experiences of Nigerians who seek health services. Strengthening the Nigerian emergency care system will require implementing community-informed interventions concertedly at the prehospital, hospital and health systems levels.

At the prehospital level, the majority of participants reported being able to recognise an emergency but there remains a knowledge deficit on how to appropriately intervene during an emergency. One suggested strategy to augment emergency care delivery is to train laypersons on basic life support, which has proven successful in many LMICs, including in sub-Saharan Africa.<sup>29 30</sup> Moreover, participants alluded that policy leaders should prioritise strengthening Good Samaritan laws so that well-intended bystanders are empowered to initiate basic life support and be protected while doing so.<sup>12</sup>

The findings from our discussions suggest modernising the prehospital infrastructure as well as the road traffic networks that integrate even the most remote communities.<sup>19</sup> Solutions have been identified and proposed that are applicable to the Nigerian context.<sup>31</sup> Local governments can start by investing in an adequate fleet of ambulances that are equipped with medical supplies, medications, oxygen and reliable communication systems. Drivers of these ambulances are recommended to be trained in an accredited education system and evaluated

for competency with didactic and clinical assessments. Ambulances should also be strategically located to reach victims throughout a metropolitan region with centralised call centres in place to guide their response. Additionally, one national and universal emergency number should be recognised with toll-free calling accessible with all telecommunication services.<sup>32 33</sup>

Hospitals themselves face many challenges, as many Nigerians lack trust in available primary and secondary health facilities, bypassing them to seek care at even farther tertiary facilities.<sup>34</sup> Wen *et al* reported on lower than expected utilisation of emergency departments within the Nigerian capital of Abuja despite similar location and layout of their emergency departments when compared with similar departments in the USA.<sup>35</sup> Focus group participants identified potential reasons being related to factors that are overwhelming the Nigerian workforce as well inadequate training in emergency care delivery. Strategic partnerships with established external organisations can help to build sustainable training programmes in emergency medicine ensuring clinical competency in the recognition, management and definitive treatment of patients suffering from acute illness or injury and have been successful in similar settings.<sup>36</sup> Proper training in emergency and trauma resuscitation is essential to ensuring appropriate care delivery and improving patient outcomes and may encourage patients to appropriately use health services available to them locally.<sup>12 33</sup>

To improve access to care, participants mentioned categorising health facilities based on their capabilities so that patients and prehospital providers can seek care at the most suitable facility, which may support the appropriate allocation of limited resources.<sup>12</sup> Another suggested approach involves partnering with religious and holistic entities to address social and cultural norms that deter individuals from seeking appropriate care in health facilities in a timely manner.<sup>37</sup>

Emergency care may involve extensive investigations to evaluate and diagnose high-risk injuries or illness which can be costly. But despite its costs, global consensus is that all people should have access to emergent health services without the fear of financial hardship.<sup>4</sup> Some countries, like the USA, have enacted policies that require emergency care to be rendered irrespective of a patient's ability to pay.<sup>38</sup> Nigeria has similar policies requiring care delivery regardless of one's ability to pay, but the policy does not translate to the experiences of individuals who proclaim that financial capabilities are a factor in the care they receive.<sup>28</sup> This was a recurrent concern among participants. The National Health Act (NHA) was enacted in 2014 with the goal of improving healthcare financing and expanding care access, including emergency care, by establishing a Basic Healthcare Provision Fund (BHCPF). However, BHCPF was not actually included in the federal budget until 2018.<sup>39 40</sup>

According to the World Bank, of the \$74 per capita spent on health expenditures in Nigeria, 77% is paid



out-of-pocket.<sup>41 42</sup> This is in comparison to aggregate data revealing that globally only 18% of health expenditures are paid out-of-pocket.<sup>43</sup> A general sentiment among participants was for more efforts to be taken to ensure that the BHCPF is providing citizens with access to basic primary and emergency care, as well as universal health coverage. Nigeria's ability to successfully implement the promises of the NHA could catapult the nation to be on track with international standards for healthcare access and quality.

### Limitations

Study limitations should be considered. The focus groups were conducted among participants of an emergency medicine symposium and therefore captured individuals actively engaged or interested in emergency care service delivery, many of whom are healthcare providers, who have pre-existing knowledge and intimate experience with the healthcare system, which may have impacted the themes and concerns that they expressed in the focus groups. The participants also attended conference sessions prior to participating in the study, which may have biased their perceptions and influenced the discussions. The study captured a small sample size because it was limited to the participants of a symposium, and therefore, the themes that emerged may be biased towards the cohort of individuals present. And lastly, by nature of design, our study highlights the perceptions of symposium participants but recognises that their opinions and claimed experiences are subject to recall bias and cannot be verified.

### CONCLUSION

The participants in our study identified shortcomings in the Nigerian emergency care system. Participants were able to outline challenges and opportunities characterising prehospital care delivery, hospital care delivery and health system governance. Themes also emerged to describe the components of the emergency care system as rudimentary, vulnerable and disconnected, respectively. The results of this study may help healthcare professionals, policy makers 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 systems throughout Africa.

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