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RESEARCH ARTICLE

A REVIEW OF THE COMPLEX HUMANITARIAN EMERGENCY IN THE BOKO HARAM EMBATTLED REGION OF NORTHEASTERN NIGERIA: A CALL FOR GLOBAL PARTNERSHIP BY AID ORGANIZATIONS

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ABSTRACT

Complex Humanitarian Emergencies (CHE's) result in widespread displacement of communities, with attendant public health consequences. CHE's constitute a huge burden in the fight against the spread and eradication of several communicable diseases. When CHE's occur, they result in the loss of lives, and impose strains on health systems. Unfortunately, the victims of this catastrophic situation may have limited access to primary healthcare services. To compound the problem, donor aid may become limited, due to security concerns and the ensuing instabilities in the region. This situation could result in several victims living in camps for internally displaced persons (IDPs'), which may be overcrowded and provide an effective breeding environment for the spread of diseases. Northeastern Nigeria has been under the siege of the Islamist terrorist group, Boko Haram for the past 8 years, and this has resulted in the spread of several communicable diseases in alarming proportions. There have been reports of several disease outbreaks including cerebrospinal meningitis, measles, hepatitis E and cholera. Unfortunately, few years after Nigeria declared its last case of poliomyelitis, there have been reports of a re-emergence of the disease as a result of the unrest. While the efforts of international aid organizations in mitigating the spread of diseases are highly commendable, we advocate a more robust concerted effort by donors in addressing the public health challenges in the embattled region. We also provide recommendations including the provision of potable clean water, mobile sewage facilities, sanitary supplies, improved accessibility to primary healthcare facilities and incentivization of health workers, which may be adopted to limit the spread of diseases and improve health outcomes.

INTRODUCTION

A Complex humanitarian emergency(CHE) is defined as a situation in which there is extensive violence and loss of life; massive displacements of people; widespread damage to societies and economies; the need for large-scale, multi-faceted humanitarian assistance; and obstructions to such assistance by political and military constraints, including security risks for the relief workers themselves (Jones, 2009). CHE's are characterized by social disruption, armed conflict, population displacement, collapse of public health infrastructure, and food shortages (Al Gasseer, 2004). Unfortunately, women and children bear the greatest burden in the midst of war and long-term disasters, (Al Gasseer, 2004) and in regions of the world with fragile political systems, the risk of this catastrophic outcome may more than double in magnitude. CHE's result in the breakdown of governance, and may lead to immeasurable public health consequences, with limited access to primary healthcare care services for the victims.

They provide an effective medium for the spread of communicable diseases in camps for internally displaced persons (IDPs') and refugees, and the impact of the crises on health statistics may be under-reported due to underutilization of health services, which may be due in part to persistent security concerns. Complex humanitarian emergencies have been a major political, security and public health feature of the post-Cold War world (Brennan, 2001). These man-made disasters account for more morbidity and mortality than all natural and technological disasters combined (Brennan, 2001). Communicable diseases alone or in combination with malnutrition, account for most deaths in complex emergencies (Connolly, 2004). Violent trauma is also a major cause of mortality during a CHE (Brennan, 2001). Factors promoting disease transmission interact synergistically with one another, leading to high incidence rates of diarrhea, respiratory infections, malaria and measles (Connolly, 2004). With the displacement of populations during a CHE, malnutrition, overcrowding and inadequate access to clean water, appears to fuel the spread of communicable diseases including respiratory infections and diarrhea. The excess morbidity and mortality resulting from complex humanitarian emergencies are

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avoidable if effective interventions are available (Connolly, 2004), however, interventions may not be immediately effective especially if the unrest drags on. The ongoing unrest in the Boko Haram embattled region of Northeastern Nigeria has limited the impact of international aid organizations in attempting to address the current health challenges, and this has resulted in the spread of several communicable diseases. There have been reports of cholera and measles outbreaks, and the re-emergence of wild polio cases. The most appropriate health interventions during a CHE should therefore be based on the models of public health and primary health care, which emphasizes disease prevention and health promotion (Brennan, 2001), which may not be realistically possible in an ongoing crisis. Measures which have been advocated to prevent mortality and morbidity in complex emergencies include protection from violence; the provision of adequate food rations, clean water and sanitation; diarrheal disease control; measles immunization; maternal and child health care, including the case management of common endemic communicable diseases; and selective feeding programs, when indicated (Toole, 1997). The on-going unrest in Northeastern Nigeria by the militant group has resulted in some concerning public health consequences, and the need for better donor coordination and support in combating some of these health challenges cannot be over emphasized.

Boko Haram: The scope and consequences of their activities

Boko Haram is an Islamist terrorist and militant organization that has besieged Northeastern Nigeria since 2009. The activities of this group have left many dead, displaced, missing and disabled, in an area of the country generally regarded as both economically and socially lagging, compared to other regions. The Nigeria Poverty Profile Report released by the National Bureau of Statistics in 2012, revealed that the Northwest and Northeast geo-political zones recorded the highest poverty rates in the country with 77.7% and 76.3% respectively in 2010 (Nigeria Poverty Profile Report, 2010). This region of the country also lags behind in key health indicators such as child health, maternal health and healthcare utilization. Therefore, the unleashing of violent activities in a region of the country hitherto faced with burdensome economic and public health challenges, have only gotten worse in the wake of the ongoing terrorist activities. Nigeria is divided into 6 geopolitical zones namely Northeast, Northwest, North-central, Southwest, Southeast and South-south respectively. The Northeast geopolitical zone of Nigeria comprises 6 states: Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe. This zone has an estimated population of 25 million (Reed, 2014), of the 183 million in the entire country (National Population Commission, 2017). Adamawa, Borno and Yobe bear most of the brunt of challenges to security as a result of the Boko Haram insurgency (Hamisu, 2016), and this has greatly affected the impact of public health interventions in the disaster embattled region. The compromised security has resulted in the killing of health workers, destruction of health facilities, and the displacement of large numbers of individuals (Hamisu, 2016). According to the International Organization of Migration Displacement Tracking Matrix (DTM), there are 7 million people in need of humanitarian assistance in Nigeria, including 1.9 million displaced by the insurgency (International Organization for Migration, 2017). These figures are alarming, as it goes to show the number of lives impacted by the ongoing unrest in the most populous nation in Africa.

Many of these internally displaced people live in official and unofficial camps often plagued by overcrowding, malnutrition, poverty, gender based violence, food insecurity, psychosocial trauma, and communicable diseases. Camps for refugees and internally displaced persons are stretched thin on available resources, further compounding the environmental and economic problems faced by the region. Access to primary healthcare services is almost impossible, and aid and donor agencies are often limited in the magnitude of their impact due to the instability in the region. The World Health Organization (WHO) reports that 2 out of every 3 health facilities in the region have been damaged by the conflict, and that 6.9 million people are in need of health assistance (WHO, 2017).

Complex humanitarian emergencies often leave in its wake a myriad of public health and humanitarian needs, requiring the concerted efforts of international donors, government and non-governmental agencies, and local stake holders. The ongoing Boko Haram insurgency has resulted in several disease outbreaks including diarrhea, cholera, polio, measles, respiratory tract infections, malaria and HIV (Omole, 2015). The Nigeria Centre for Disease Control also reported an outbreak of cerebrospinal meningitis a few months ago across 5 states in the Northeast region (Nigeria Centre for Disease Control, 2017). It is of paramount importance to both local and international stakeholders to pay more attention to the ongoing crises, in order to mitigate the public health effects on the victims in the embattled region. A description of some of the disease outbreaks in the region is outlined below.

Cholera Outbreak

Cholera is an acute disease of the gastrointestinal tract caused by *Vibrio cholera* (Lippi, 2015). Unlike many other infectious diseases, such as plague, smallpox, and poliomyelitis, cholera persists as a huge public health problem worldwide, even though there are effective methods for its prevention and treatment (Lippi, 2015). Cholera flourishes where there are unsatisfactory hygienic conditions, and where a breakdown of already fragile sanitation and health infrastructure occurs because of natural disasters or humanitarian crises (Lippi, 2015). Therefore, the present insurgence in Northeastern Nigeria, with inadequate access to safe drinking water has provided a favorable environment for this organism to thrive. The *Médecins Sans Frontières (MSF)* reported the first cases of cholera in 2015, in the internally displaced persons camps in Maiduguri, the capital of Borno State, which shelters over 1.6 million displaced persons (<http://www.msf.org/en/article/nigeria-cholera-spreads-displaced-persons-camps-borno-state>). Over the span of a three week period, the disease had spread to the city's other IDP sites, with more cases of the disease being reported (<http://www.msf.org/en/article/nigeria-cholera-spreads-displaced-persons-camps-borno-state>). Although MSF and the International Committee of the Red Cross (ICRC) have continued to work together to address and mitigate the emergence of this public health emergency (<http://www.msf.org/en/article/nigeria-cholera-spreads-displaced-persons-camps-borno-state>), more support and assistance from other international donors are being sought, due to the fragility of the situation on ground and the likelihood of the continued spread of the disease in light of existing deplorable health facilities.

Polio re-emergence

Poliomyelitis, an infectious disease caused by an enterovirus, results in severe debilitating complications, which can only be

prevented by vaccination. It invades the nervous system, and can cause total paralysis in a matter of hours (WHO poliomyelitis factsheet, 2017). The virus is transmitted by person-to-person, spread mainly through the fecal-oral route or, less frequently, by a common vehicle (for example, contaminated water or food) and multiplies in the intestine (WHO poliomyelitis factsheet, 2017). 1 in 200 infections leads to irreversible paralysis (usually in the legs). Among those paralyzed, 5% to 10% die when their breathing muscles become immobilized (WHO poliomyelitis factsheet, 2017). Polio cases have decreased by over 99% since 1988, from an estimated 350,000 cases then, to 37 reported cases in 2016 (WHO poliomyelitis factsheet, 2017). However, as long as a single child remains infected, children in all countries are at risk of contracting polio, and failure to eradicate polio from these last remaining strongholds could result in as many as 200,000 new cases every year, within 10 years, all over the world (WHO poliomyelitis factsheet, 2017). Therefore, with the recording of 53 cases of polio in Nigeria in 2013 with more than half of those cases from Borno and Yobe, (Omole, 2015) came a huge public health concern. However, by 2014 only one case of the disease was reported in Borno and Yobe, (Etsano, 2014) with the drastic change in figures suggesting under-detection and underreporting of new cases due to the insurgency (Omole, 2015). Although the coordinated efforts of the WHO and other international organizations swiftly moved to prevent a spread of this catastrophic infection by increasing immunization efforts in hard to reach regions, 2 wild cases of the disease were again reported in 2016 (WHO media centre, 2016). The re-emergence of this crippling disease attests to the vulnerability of victims in disaster embattled regions, and brings to the fore the overarching responsibility of public health practitioners in combating the spread of disease. Reaching these vulnerable children requires vaccinating populations as they move in and out of inaccessible areas and using local-level groups and organizations, such as religious institutions and community based organizations, to negotiate access for vaccination teams (WHO media centre, 2016). International aid organizations sometimes face humungous challenges in getting these vaccines to the population greatly in need of it, because like in the Boko Haram situation, the insurgents have prevented the distribution of these vaccines to the areas currently afflicted. In spite of these challenges, the WHO reports that 1.8 million children in the terror fraught Northeast region of Nigeria have been vaccinated against the polio virus (WHO, Nigeria crises, 2017). Although these efforts are largely commendable, the need for continued donor aid and measurable public health interventions in the disaster region is significantly greater.

Hepatitis E outbreak

Globally, hepatitis E virus (HEV) is the most common cause of acute viral hepatitis (Murrison, 2017). HEV is endemic in many developing countries, and remains poorly characterized and frequently unidentified or misdiagnosed by clinicians (Murrison, 2017). HEV infection can be acute or chronic, further complicating the presentation, diagnosis, prognosis, and natural history of disease. In low resource, high endemic settings, HEV is frequently transmitted through the fecal-oral route due to ingestion of fecal contamination of food and water, putting regions plagued by CHE's at high risk of developing clinically significant proportions of the disease. The WHO has recently reported an outbreak of HEV in the northeastern BokoHaram besieged region of Nigeria (WHO.

Emergencies preparedness, response, 2017). Possible explanations for this recent outbreak include overcrowding which is overwhelmingly weakening the already weak structures of the camps housing IDPs' (WHO, Emergencies preparedness, response, 2017). Other factors include lack of access to essential water supply, sanitation, hygiene, and health services, which may lead to further propagation of the disease at a very rapid rate (WHO, Emergencies preparedness, response, 2017).

Other public health concerns

There have also been documented reports about a measles outbreak in the region with a total of 3,905 suspected cases reported in the conflict region, and 129 laboratory confirmed cases by October 2016 (<https://reliefweb.int/disaster/ep-2016-000126-nga>). There have also been reports about severe malnutrition amongst those living in the camps, with an estimated one in five people described as severely malnourished, including nursing mothers and children (Omole, 2015). Unconfirmed reports suggest that some patients with HIV and some other chronic diseases such as hypertension and diabetes had been off their medications for at least 3 months as a result of the ongoing crises (Omole, 2015). Pregnant women are reported to give birth under unsupervised conditions due to unavailability of health care facilities, and as at the time of the report, it was noted that all the maternal deaths in the Adamawa camps, were as a result of hemorrhage (Omole, 2015). As with any catastrophic emergency situation, it is noteworthy to mention that the mental health situation amongst residents in the camps is currently not reported, as resources are being channeled to interventions that have a 'priority' status amongst local and international partners.

Recommendations

Complex humanitarian emergencies result in significant public health consequences, including the significant loss of lives and the spread of communicable diseases. While we advocate an integrated coordination of donor aid in addressing some of these public health challenges, we remain cognizant of priority issues that need to be addressed. We therefore propose the following recommendations to global stakeholders which may be adopted to improve the health outcomes in the face of the persisting crises.

- The delivery of potable clean water to residents in the camps should be given priority status. Some of the communicable diseases that have risen to 'outbreak' statuses such as cholera and hepatitis E, can be curtailed if there is a steady source of potable drinking water. Donor organizations can collaborate in borehole construction, and purification of available water sources for persons sheltered in the IDP camps.
- The provision of mobile sewage facilities can also address some of the environmental and hygiene concerns that impact disease transmission amongst the residents in the camps. Because the camps are frequently overcrowded, sewage facilities may be inadequate. However, the availability of mobile sewage facilities, which are cheaper to acquire, and easier to maintain, may improve sanitary conditions amongst camp residents, and limit the spread of diseases.
- Sanitary supplies such as hand sanitizers, sanitized wipes, female hygienic products, toiletries, should be

prioritized in donor supplies for camp residents. These may also help to limit the spread of diseases.

- Accessibility of camp residents to primary healthcare should be prioritized by building make-shift facilities within the vicinities of the camps. Community leaders should be trained in recognizing early symptoms of communicable diseases, so that effective management can be instituted for victims before it reaches outbreak status. Also, referral channels to secondary and tertiary health centers should be strengthened for difficult cases, by limiting bureaucracy and enhancing mobility to these advanced centers.
- Due to the unrest in the region, some healthcare workers may be unwilling to provide medical care in the region, especially if their security is not guaranteed. Healthcare workers should thus be incentivized to work in these regions, by providing them with better compensation, and ensuring 24 hour security surveillance by military and security personnel while they carry out their work. This will lead to early detection and diagnosis of cases, proper and prompt referral of cases and limiting the spread of communicable diseases, thereby preventing the rise to outbreak statuses.

Conclusion

In order to deliver effective aid during complex humanitarian emergencies, international relief agencies must have a solid understanding of the political and social climates in which they are operating (Brennan, 2001). In addition, they should base their health interventions on objective epidemiological data, especially standardized rates of morbidity and mortality (Brennan, 2001). The ongoing Boko Haram insurgency in Northeastern Nigeria is indeed a public health emergency which has resulted in loss of lives, and the spread of several communicable diseases. Current efforts by international donor organizations in assisting the Nigeria government to address some of these public health challenges are indeed commendable. However, a more robust and concerted effort by aid organizations is still needed to restore relative peace and address the ongoing public health challenges in the region.

REFERENCES

- Al Gasseer N, Dresden E, Keeney GB, Warren N. Status of women and infants in complex humanitarian emergencies. *J Midwifery Womens Health*. 2004; 49(4 Suppl 1):7–13. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/15236698>
- Brennan RJ, Nandy R. Complex humanitarian emergencies: A major global health challenge. *Emerg Med*. 2001; 13(2):147–56.
- Connolly MA, Gayer M, Ryan MJ, Salama P, Spiegel P, Heymann DL. Communicable diseases in complex emergencies: Impact and challenges. *Lancet*. 2004; 364(9449):1974–83.
- Etsano A, Gunnala R, Shuaib F, *et al*. Progress toward poliomyelitis eradication-Nigeria. *MMWR Morb Mortal Wkly Rep* 2014; 63:1059–63.

- Hamisu AW, Johnson TM, Craig K, Mkanda P, Banda R, Tegegne SG, *et al*. Strategies for improving polio surveillance performance in the security-challenged Nigerian States of Adamawa, Borno, and Yobe During 2009-2014. *J Infect Dis*. 2016; 213(Suppl 3):136–9.
- International Organization for Migration/Nigeria. Website. <https://nigeria.iom.int/dtm>. Accessed September 20th, 2017
- Jones L, Asare JB, El Masri M, Mohanraj A, Sherief H, van Ommeren M. Severe mental disorders in complex emergencies. *Lancet*. 2009; 374(9690):654–61.
- Lippi D, Gotuzzo E, Caini S. Cholera. *Microbiol Spectrum* 2016;4(4):PoH-0012-2015. doi:10.1128/microbiolspec.PoH-0012-2015
- Médecins Sans Frontières (MSF). Nigeria: Cholera spreads in displaced persons camps in Borno State. 2015. Website. <http://www.msf.org/en/article/nigeria-cholera-spreads-displaced-persons-camps-borno-state>. Published September 17, 2015. Accessed September 20th, 2017.
- Murrison LB, Sherman KE. The Enigma of Hepatitis E Virus. *Gastroenterol Hepatol (N Y)*. 2017;13(8):484–91.
- National Population Commission. 2017. Website. <http://www.population.gov.ng>. Accessed September 20th, 2017.
- Nigeria Centre for Disease Control. 2017. Website. <http://www.ncdc.gov.ng/news/67/meningitis-outbreak-in-nigeria-affects-five-states>. Published March 30, 2017. Accessed September 20th, 2017.
- Nigeria Poverty Profile Report 2010. Website. <https://www.proshareng.com/news/Nigeria%20Economy/Nigerian-Poverty-Profile-Report-2010---NBS/16302>. Published February, 2012. Accessed September 20th, 2017.
- Omole O, Welye H, Abimbola S. Boko Haram insurgency: Implications for public health. *Lancet*. 2015; 385 (9972):941.
- Reed HE, Mberu BU. Capitalizing on Nigeria's demographic dividend: reaping the benefits and diminishing the burdens. *Etude Populaf* 2014; 27(2):319-30.
- Relief web: Website. <https://reliefweb.int/disaster/ep-2016-000126-nga>. Published October, 2016. Accessed November 4, 2017
- Toole M, Waldman R. The public health aspects of complex emergencies and refugee situations. *Annu Rev Public Health*. 1997; 18(1):283–312. Available from: <http://www.annualreviews.org/doi/10.1146/annurev.publhealth.18.1.283>
- WHO poliomyelitis fact sheet. World Health Organization website. <http://www.who.int/mediacentre/factsheets/fs114/en/>. Published April, 2017. Accessed September 20th, 2017.
- WHO. Emergencies preparedness, response. Acute hepatitis E-Nigeria. World Health Organization website. <http://www.who.int/csr/don/12-july-2017-hepatitis-e-nigeria/en/>. Published July 12th, 2017. Accessed September 20th, 2017.
- WHO. Media centre. Government of Nigeria reports 2 wild polio cases, first since July 2014. World Health Organization website. <http://www.who.int/mediacentre/news/releases/2016/nigeria-polio/en/>. Accessed September 20th, 2017.
- WHO. Nigeria crisis. World Health Organization website. <http://www.who.int/emergencies/nigeria/en/>. Accessed September 20th, 2017.
