

## Abstract

**Introduction:** Armed conflict is inimical to the health of those affected by it. Nigeria has a long-standing history of armed conflict amidst a battered system. Armed conflict in Nigeria has led to maiming and death and has negatively affected the quality of life of the citizens. It has also affected the delivery of healthcare services and other social determinants of health. Armed conflict in Nigeria has reduced vaccination rates and maternal healthcare utilization and has led to food insecurity in the affected areas. The impact of armed conflict on population health is of grave concern for this nation with the decline in overall quality of life as mortality and morbidity worsen. This study aims to explore the public health implications of armed conflicts in Nigeria.

**Methods:** Internet searches of peer-reviewed articles containing search terms (e.g. "armed conflict and health", "armed conflict in Nigeria") published within the past 5 years in Science Direct (Elsevier), Medline, PubMed, Biomed Central, and Google Scholar are reviewed.

**Conclusion:** Most studies approach armed conflict in political and economic terms and the impact is always viewed from these approaches. This study focuses mainly on armed conflict from a public health perspective. The peace and stability of a nation lead to socioeconomic and political progress resulting in improved health and overall wellbeing of the citizens. Armed conflict in Nigeria directly and indirectly, negatively affects the social determinants of health and the overall well-being of Nigerians. Armed conflict is no doubt a huge challenge to public health in Nigeria. Addressing the root causes of armed conflict in Nigeria at multiple levels will go a long way to improve the quality of life of people crucial to national growth.

## Introduction and Background

Globally, over 110 armed conflicts have been happening for more than 50 years, some polarized and others not.<sup>1</sup> Armed conflicts are disputes that occur among parties and involve the use of weapons ranging from simple to complex ones. It can happen within a nation or among nations. Armed conflicts arise due to causes connected to political, socio-cultural religious, economic, and geographic reasons. However, immediate causes are the triggers sometimes so simple or even unexplained. The United Nations High Commissioner for Refugees (UNHCR) announced that by the end of September 2023, war, persecution, violence, and human rights violations had led to an estimated 114 million displacement of people.<sup>2,3</sup> At least 46 nations in Asia, the Americas, Europe, the Middle East, North Africa, Oceania, and Sub-Saharan Africa, were involved in armed conflicts in 2021.<sup>4</sup> The Geneva Academy listed Africa south of the Sahara as the second region of the world with the highest numbers of armed conflicts, over 35, taking place in Burkina Faso, Cameroon, Central African Republic, the Democratic Republic of Congo, Ethiopia, Mali, Mozambique, Nigeria, Senegal, Somalia, South Sudan, and Sudan. Middle East/North Africa stands first with over 45 armed conflicts.

Nigeria is experiencing high-intensity armed conflicts with 1000 to 9999 fatalities.<sup>4</sup> Nigeria is confronted by five (5) security threats: Jihadism perpetrated by the Islamic militant group Boko Haram, clashes between herders and farmers, banditry and kidnapping, separatist insurgency perpetrated by Indigenous People of Biafra (IPOB), and oil militants. All of these conflicts are characterized by violence involving weapons.<sup>5</sup> The list does not include periodic violence and armed conflict arising from elections, civil resistance such as Occupy Nigeria in 2012 due to the removal of subsidies on petroleum products, and End SARS in 2020 due to police brutality and pockets of others often unreported.<sup>6,7,8</sup> These incidents are often accompanied by burnings, the vicious destruction of properties, mass displacement, and disruption of food supply leading to malnutrition,<sup>9,13</sup> and vast fatalities that are often unaccounted for.

Public health coordinates efforts to prevent diseases, prolong life, and promote the health of people within communities to give everyone a safe place conducive to living, learning, working, and playing.<sup>10</sup> It assesses people's health through various indicators including births, mortality, morbidity, life expectancy, quality of life, and environmental risk factors.<sup>12</sup> Armed conflict negatively affects all these indicators and leads to reduced quality of life, and increased rates of morbidity and mortality.

Several studies analyzed armed conflict situations that affect health in general, however, few focus on the impact of armed conflict in Nigeria related to public health, and they largely focus on displacements, mortality and morbidity, maternal health, child health, and vaccination, as individual healthcare issues during conflicts. Public health focuses on all aspect of health and well-being that potentially affects or are affecting the normal daily functioning of the population. It is determined to avert ill-health and ameliorate the further impact of health conditions on people and communities. This study aims to explore the public health implications of armed conflicts in Nigeria.

## Methods

Internet searches of peer-reviewed articles containing search terms (e.g. "armed conflict and health", "armed conflict in Nigeria") published within the past 5 years were reviewed

Data Base	Science Direct (Elsevier), Medline, PubMed, Biomed Central, Google Scholar
Year of Study Interval	2019 - 2024
Search Terms	Armed Conflict AND Health, Armed Conflict, Nigeria, Armed Conflict AND Public Health, Conflict AND Health
Inclusion Criteria	Studies related to the objective of the study.
Screening	Research articles were selected based on inclusion criteria by the authors.
Literature Matrix	Research questions or hypotheses, the aim of the study, and the research strategy.



Figure 1. Internally Displaced People pumping water from boreholes. Source: <https://www.crisisgroup.org/africa/west-africa/nigeria/b184-rethinking-resettlement-and-return-nigerias-north-east>



Figure 2. United Nations: Years-long conflict in North-East Nigeria killed 324,000 children under five. Source: <https://parstoday.ir/en/news/world-1145666-un-years-long-conflict-in-nigeria-killed-324-000-children-under-five>



Figure 3. Troops arrest 2, recover rocket propeller from terrorists in Imo, South-east Nigeria. Source: <https://guardian.ng/news/troops-arrest-2-recover-rocket-propeller-from-terrorists-in-imo>



Figure 4. Shoes of abducted school children left behind. Source: <https://www.reuters.com/world/africa/kidnapped-nigerian-students-freed-after-ransom-paid-school-parent-2021-07-09>

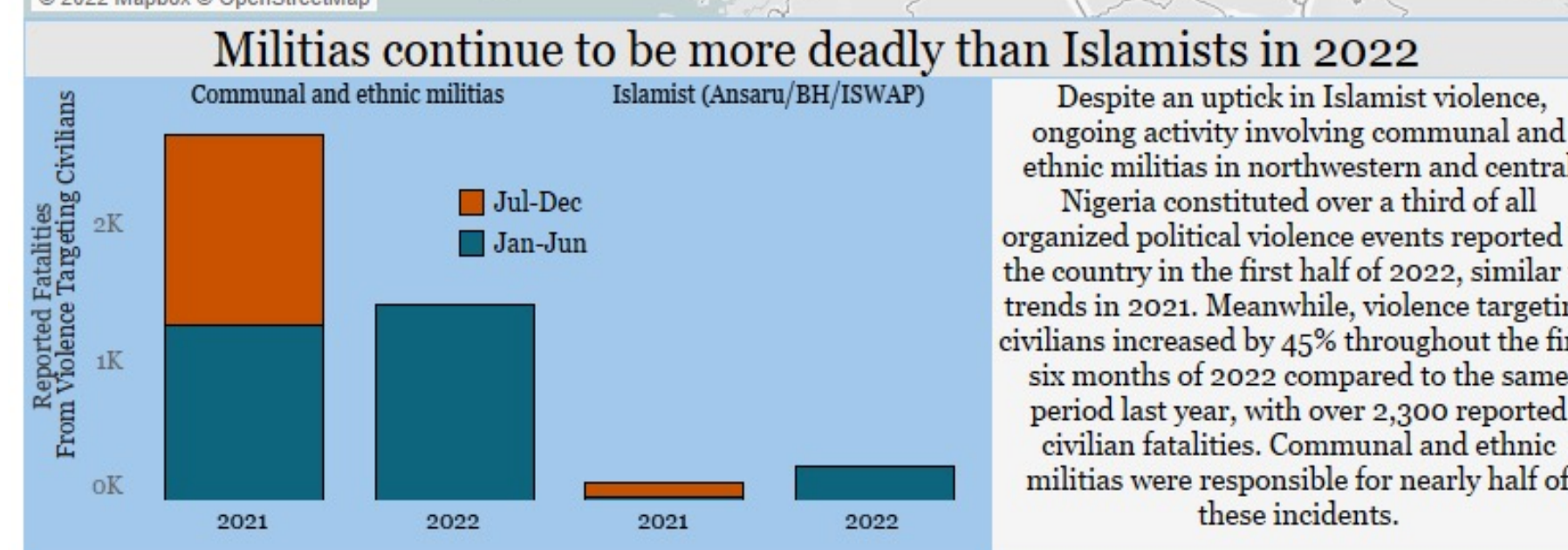
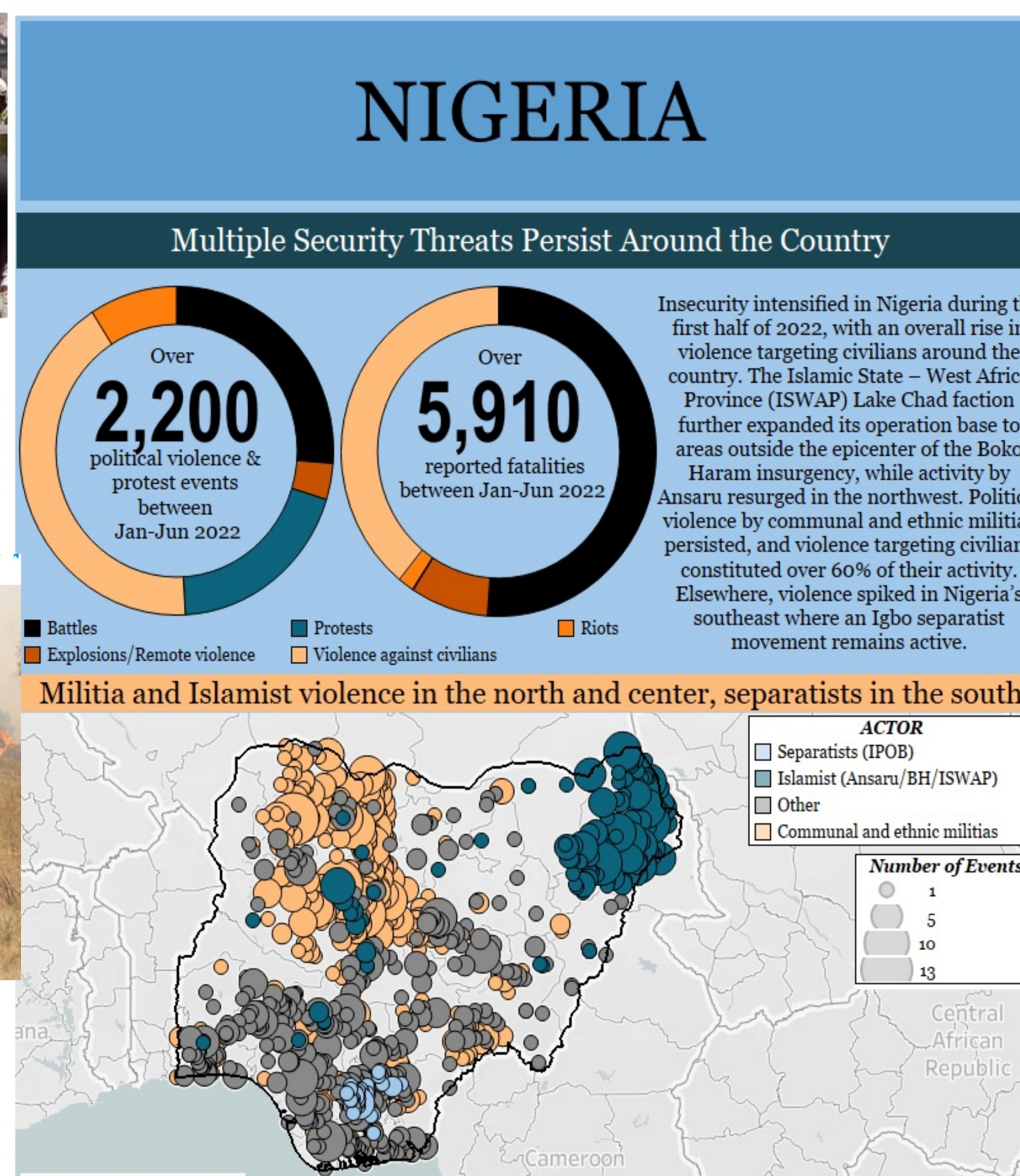


Figure 5. Data showing the levels of insecurity in Nigeria. Source: <https://acleddata.com/10-conflicts-to-worry-about-in-2022/nigeria/mid-year-update/>



Figure 7. Internally Displaced Persons. Source: <https://srhin.org/blogpost-on-braveheart/>

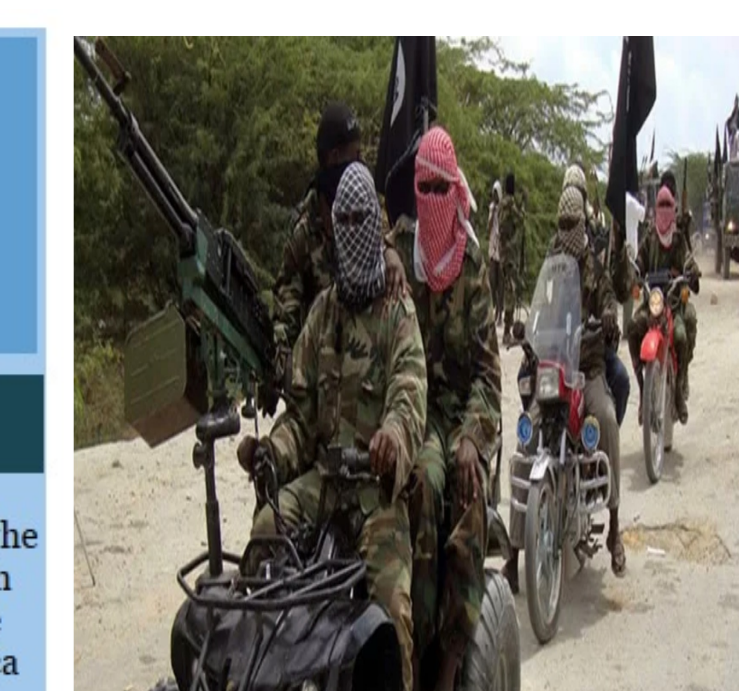


Figure 6. Boko Haram and ISWAP. Source: <https://leadership.ng/boko-haram-kills-over-300-members-planning-to-surrender-borno-gov/>



Figure 7. Hunger crisis. Source: [the-hunger-crisis-in-nigeria/](https://the-hunger-crisis-in-nigeria/)



Figure 8. In the aftermath of the Boko Haram Attack, at least 65 people were killed, and houses were burnt down. Source: <https://www.nytimes.com/2016/02/02/world/africa/brutal-boko-haram-raid-in-nigeria-kills-as-many-as-100.html>

## Results Discussion & Conclusion

### Results

The impact of armed conflicts on public health has both direct and indirect consequences to population health. Direct impacts include disruption of health care and preventive services, mass deaths, injuries, disabilities, forced displacements, rise in rape cases, breakdown of the health system, destruction of health infrastructure, fleeing of health workers, shortage of medication and medical supplies, insecurity, and lack of transportation affecting the provision and utilization of health services. The takeover of health facilities by combatants prevents the smooth delivery of healthcare services. An increased risk of infectious disease transmission. Patients with chronic diseases remain in increased vulnerability due to limited access to essential health services. Armed conflict limits access to healthcare and worsens pre-existing health conditions in the population. Vulnerable populations such as the elderly, children, neonates, and women remain at risk. Mother's antenatal care visits are impeded, and labor rooms for delivery are inaccessible due to insecurity. Challenges in disease surveillance during armed conflict included the inaccessibility of the population. Increased spread of polio and possible delayed detection causing spikes. The long-term consequences of armed conflict include the destruction of health facilities, interrupted immunizations/vaccinations, trauma, mental illnesses like post-traumatic stress disorder (PTSD), and lifelong disabilities. Shortage of medical supplies due to heightened demand. Those living in conflict zones resort to the use of traditional medicine and home remedies that may or may not be effective. Additionally, those people obtain medications from places unaffected by conflict thereby shortening medical supplies on those unaffected areas.

The indirect impacts of armed conflict are often socioeconomic and have a daunting effect on people's quality of life. These include disruption of food supply leading to malnutrition in children, and food insecurity. Displacement, loss of shelter, and loss of livelihood increase the rate of poverty. Farming, which is the means of livelihood for many, becomes disrupted leading to low yield and causing food insecurity. There is difficulty in disposing of dead bodies resulting in air pollution. Transportation of people, goods, and services is hindered by intense insecurity. Water pollution and disruption of water supply result in the inaccessibility of clean water in a region already struggling with hygiene and sanitation problems. School closure and disruption of education affect the academic progress of children and young people. This eventually affects literacy and in the long run, affects health literacy since they are unable to read and properly process health information.

The general breakdown of societal order leads to increased crime rates threatening the safety of persons not directly affected and people who have moved to shelters or refugee camps. Armed conflict is inimical to the health and well-being of those affected.

### Discussion

This study investigated the public health implications of armed conflicts in Nigeria. Based on the research reviewed, armed conflict heightens the levels of injury and deaths, impacts the environment negatively, as well as affects the overall quality of life of Nigerians.

Much of the direct impacts are often visible and easy to identify, hence interventions are often not complicated. However, the indirect impacts related largely to the social determinants of health are trickier for most. Reportedly 47.3 percent of the estimated 206 million Nigerians live in multi-dimensional poverty while 10.5 million children in Nigeria are out of school.<sup>15,19</sup> The impact of indirect consequences of armed conflicts are often unsettling while heavily affecting people's health years after the incidents. Malnutrition could result in stunted growth and poor brain for example. These problems make children vulnerable to lifelong health conditions and impede cognitive function leading to dementia and Alzheimer's disease, for instance, thus reducing the possibilities of the attainment of their potential later in life.<sup>16</sup>

The problems of general manpower shortages and health service skills gaps also affect healthcare such that there is a limited supply of health services, this has been reported in the region and globally.<sup>17</sup> Nigeria is also affected by the absence of or poor scientific reporting systems in many places including the non-processing of data retrieved into useable information, resulting in poor documentation of casualties, thus statistics are tremendously often estimated which immensely affects intervention negatively and leads to inefficient health policies.<sup>18</sup> A lack of political will, the poor implementation of health legislation, and the low priority placed on prevention efforts are enormous and continue to create a sustaining environment for conflicts and crimes that utterly affect the mental and physical health of the population negatively. Consequently, mass migration through land, air, and water, by both legal and illegal means, and continued rising crime rates lead to a feeling of hopelessness among the population.

The limitations of this study are the limited data on armed conflict as relates to public health in the target databases, and more studies dwell on political and economic implications on systems. Few focused on the people who are experiencing the issues and how this impacts them. Those studies related to health were fragmented concentrating on challenges affecting the supply end of healthcare during armed conflicts while those most closely related to armed conflict and public health were mostly based on the northeast part of the country.

### Conclusion

Armed conflict in Nigeria has important public health implications including deaths (mortalities), injuries/ diseases (morbidity), and diminished quality of life for those in the affected areas. Addressing the root causes of conflicts and finding lasting solutions to current conflicts will go a long way to improving quality of life, decreasing injuries/ diseases, and eliminating conflict-related deaths. This will ensure the overall health and well-being of Nigerians.

## Future Work

1. Analyze social media outlets to ascertain the impact of armed conflict in Nigeria on the mental health of the affected population to determine solutions to avert further problems.
2. Investigate strategies to develop effective public health leadership, communication, and coordination of efforts to improve population health.
3. Ascertain areas of advocacy and policy reviews to organize efforts towards prevention and management of remote causes of conflict.
4. Determine sustainable interventions for vulnerable groups like children, women, and the elderly in the entire country rather than selected regions.

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