Original Research Article

Impact of Insecurity on Access to Maternal Health Services by Women of Reproductive Age in Selected Rural Communities in Zamfara State, Nigeria.

Abstract

Nigeria, Africa's largest economy is of late, enmeshed in monumental security challenges, the consequence of which is that no section of the country is insulated from the activities of criminal elements. The most prominent of Nigeria's security hiccups is the Boko-Haram sect in the northeastern region of the country. Beside the Boko-Haram menace, the northwestern zone, particularly Zamfara State, has been under persistent bandit attacks with 16,086 persons abducted between 2015 and 2022, out of which 9,490 were killed and 1,385,625 othersdisplaced. Several critical health care infrastructures have been destroyed with only 200 of the 700 PHCsin the State currently accessible while the remaining 500 have been abandoned due to insecurity. This paper examined the impact of insecurity on access to maternal health services by women of reproductive age in selected local government areas of Zamfara State. Questionnaire and Key Informant Interview Guide (KII) were the primary data collection instruments while the Subcultural theory served as the theoretical framework. A total of 400 questionnaire copies were purposively administered out of which 382 (95.5%) were retrieved, while 30 informants participated in the KII.The study found that insecurity has occasioned massive relocation of medical personnel, destruction of rural health facilities, decline in hospital patronage and dearthof essential drugs. The paper recommends the adoption of kinetic and non-kinetics strategies to stem insecurity; reconstruction of destroyed medical infrastructures; location of health care centres within accessible distance to encourage patronage and rehabilitation of the 1,385,625 persons displaced by bandits in the State.

Keywords: Boko-Haram Sect; Insecurity; Kinetic & Non-Kinetic Strategies; Maternal Health Services; Medical Infrastructures;

Introduction

Maternal health is a critical component of the overall health system of any society. Maternal health refers to the health of women during pregnancy, childbirth and the postnatal period (World Health Organization [WHO], 2023). In particular, the link between maternal health and economic productivity cannot be overstated because healthier mothers and their offspring have been found to contribute to societies that are more productive and educated (Onarheim, Iversen, & Bloom, 2016).Maternal health is an important aspect of the overall process for the development of any country in terms of increasing equity & reducing poverty.

The survival and well-being of mothers is not only important in their own right, but are also central to solving broader economic, social and developmental challenges facing any society (https://main.mohfw.gov.in/sites/default/files/Chapter415.pdf).

The Africa Progress Panel Policy Brief [APPPB] (2010), advocated forcontinuous and sustainable investment in maternal health, because in addition to averting fatalities from pregnancy-related causes, women are significant economic drivers. The APPPB noted that maintaining women'shealth is essential to the continent's long-term, sustainable economic development.

It is in furtherance of this goal, therefore, that the provision of maternal health services especially in rural communities in developing countries where there are limited health infrastructures and lack of health personnel, remains a top priority. In addition, the provision of maternal health services especially among women of reproductive age in rural settings in developing countries is fundamental to addressing maternal and child mortality problems. Wu, Zhou, Wang, Cao, Medina, & Rozelle (2019) underscored the above point of view when they opined that maternal health services can significantly promote the maternal health and safety of women. Similarly, Haruna, Dandeebe and Galaa (2019) asserted that improved access to and utilization of various maternal healthcare services is strongly considered as a viable solution to poor maternal and child health challenges in many developing countries.

The series of interventions by international development agencies by way of advocacy and funding have over the years contributed tremendously to reducing the rate of maternal mortality globally. For instance, from 2000 to 2020, the global maternal mortality ratio (MMR) dropped by 34 per cent – from 342 deaths to 223 deaths per 100,000 live births (United Nations Children Fund [UNICEF], 2023, WHO, 2023). Similarly, the Bill and Melinda Gates Foundation (2022) also confirmed that globally, there has been a change in the maternal mortality ratio (MMR) in 2021 to 158.8 deaths per 100,000 live births, compared to 157.1 deaths per 100,000 live births in 2020.

Even though significant progress has been recorded in addressing maternal health issues all over the world, disaggregated data from the WHO (2023)however showed that while some regions of the world have witnessed significant decline in maternal mortality rate, other regions didn't record much gains. For example, sub-Sahara Africa alone accounted for around 70% or

202,000of maternal deaths. This is not surprising because available data indicated that 95 percent of maternal deaths occurred in low and middle-income countries with the majority (72%) in sub-Saharan Africa (WHO, 2023, World Bank, 2023).

In Nigeria, cases of maternal deaths are still high. According to the National Demographic Health Survey (NDHS, 2018), the maternal mortality ratio (MMR) for Nigeria is 512 deaths per 100,000 live births for the seven-year period before the survey. The confidence interval for the 2018 MMR ranges from 447 to 578 deaths per 100,000 live births. Similarly, the UNICEF (2017) stated that while the country represents 2.4 per cent of the world's population, it currently contributes 10 per cent of global deaths for pregnant mothers. Figures released by the UNICEF show a maternal mortality rate of 576 per 100,000 live births, the fourth highest on earth (UNICEF, 2017). In Zamfara State, the situation is not different. According to statistics released by the Maternal, Newborn and Child Health Programme (MNCH2, 2018), a programme sponsored by the United Kingdom, the Maternal Mortality Ratio (MMR) is1,100 deaths per100, 000 in Zamfara State.

Several studies have implicatedsocio-economic factors, poor road network, lack of skilled healthcare manpower,regressive cultural practices, poor access to health facilities, poor roads and obsolete medical equipment among others,for the increase in the vulnerability of pregnant woman to maternal mortality(Fatusi andIjadumola, 2003; Shehu, 2004;Federal Ministry of Health, 2012;&Nuamah, Agyei-Baffour, Mensah, 2019). In addition to the above factors, the incidence of armed conflict and insecurity in different parts of the world has added a worrisome dimension to the challenges faced by women of reproductive age in accessing healthcare services.

For instance,a study by Che Chi, Bulage, Urdal and Sundby (2015), showed that in Burundi, armed conflict truncated access to maternal and reproductive health services by way of destruction of health facilities, looting of medical supplies and equipment, targeted killing and abduction of health care providers, and eventual migration of health providers to more secured areas. With the health infrastructure and personnel under severe threat, access to the services they provided was not only hampered but the quality was also affected. Similarly, the United Nations Population Fund ([UNPF, 2002) affirmed that critical social services such as medical facilities, on which women strongly depend for their well-being, are greatly disrupted by armed

conflicts. Essential services such as primary and reproductive health care are regularly truncated during conflict situations (UNPF, 2002).

In Nigeria, the activities of Boko-Haram in the northeastern part of the country resulted in the destruction of most of the health infrastructures in that region thereby putting the burden on the Nigerian Government and the International development agencies to rebuild. A WHO (2016) assessment stated that in Borno State, northeastern Nigeria, onethird of the more than 700 health facilities have been entirely destroyed while one third of the remaining facilities are completely non-operational. The report stated further that "High insecurity, difficult terrain and lack of health workers, medicines, equipment and basic amenities such as safe water are making access to essential, lifesaving health care extremely difficult for people in this conflict-affected area".

Insecurityin northwestern Nigeria, particularly in Zamfara State, has also overtaken all other factors hindering women's access to maternal health services in the State as banditry has apparently inflicted incalculable harm on property and human life there (Okoli &Ogayi, 2018). According to the Zamfara State Ministry of Humanitarian Affairs (2022), the number of kidnapping for ransom increased by 1498% while the number of deaths increased by around 196% between 2011 and 2018.According to the Ministry, 697 persons were killed by bandits in 2015 (Zamfara State Ministry of Humanitarian Affairs, 2022).Bandits intensified their murderous operations in the State in 2016, resulting in an approximated 931 fatalities. The attacks spinned out of control in 2017, leaving no fewer than 1,954 persons dead (Saminu, et al, 2023). Banditry attacks peaked in 2018 with a casualty figure of 2,063 deaths. There was a temporary breather in such attacks in 2019 and 2020 as the total number of fatalities stood at 1,184 and 1,036, respectively. However, the year 2021 witnessed a dramatic rise as the number of fatalities climbed to 1,248 and dropped significantly to 377 in 2022.

Data on cases of abduction released by the Zamfara State Ministry of Humanitarian Affairs (2022) showed that bandits abducted a total of 16,086 individuals in the State between 2015 and 2022. A breakdown of the number of abductees indicates that no less than 229 persons were kidnapped across the State in 2015, while approximately 656 others were picked up by kidnappers in 2016. The number of abductees rose steadily from 2,253 in 2017 to 3,659 in 2018, and 4318, in 2019. The figure declined to 1948 and rose astronomically to 2308 in 2021. The year 2022 witnessed a decline in abduction cases to 645, ostensibly due to increased military offensive against the bandits. Aside the kidnapping, maiming and killing of innocent persons, the menace of banditry has also created serious humanitarian crisis in Zamfara State. The Ministry

of Humanitarian Affairs (2022), reported that between 2015 and 2022, 1,385,625 people were displaced due to the activities of bandits.

It is against this backdrop that this research examines the impact of insecurity on access to maternal health services by women of reproductive age in selected rural communities in Zamfara State,given that access to health services in the State prior to this research was 40% (National Demographic Health Survey, 2018).

Research Objectives

The aim of the studywas to assess the impact of insecurity on access to maternal health services by women of reproductive age in select rural communities in Zamfara State. The specific objectives were to:

i. Determine the socio-demographic characteristics of women of reproductive age in selected rural communities in Zamfara State.
ii. Assess the impact of insecurity on access to maternal health facilities by women of reproductive age in selected rural communities in Zamfara State.
iii. Assess the impact of the long distance from the location of healthcare facilities and the patronage of such facilities by women of reproductive age in the face of insecurity in the study area.
iv. Proffer possible ways to improve access to maternal health facilities by women of reproductive age, even in the face of insecurity in the State.

Literature Review

Evidence from a wide variety of literature has strongly supported the view that there is a correlation between maternal health services and the health of women and their unborn babies. According to Nuamah, Agyei-Baffour, Mensah, Boateng, Quansah &Addai-Donkor (2019)a strong maternal health support system is indispensable for women's advancement. However, women, particularly those in rural settings suffer from avoidable complications during and after pregnancy due to limited access and utilization of maternal healthcare.

The World Health Organization, WHO, (2004), explained that maternal and child health services are health care interventions provided to women of childbearing ages for the

purpose of protecting them and their unborn children. Similarly, Darmstadt, Bhutta, Cousens, Adam, Walker& de Bernis (2005) argued that access to health care facilities is a key driver in the utilization of health services in developing countries.

Despite the importance of maternal health facilities to women's health, access to such facilities by women in rural communities in developing countries is a serious challenge. According to Babalola and Fatusi, (2009) women in rural settings lack access to maternal healthcare services and empirical evidence suggests that such services remain low in sub-Sahara Africa including Nigeria. Similarly, the WHO (2004), also affirmed the view that the key drivers of maternal deaths are the absence, inadequacy or underutilization of the healthcare system. It has also been observed that the dearth of vehicles particularly in rural communities and bad road networks make it extremely difficult for women to reach even relatively nearby facilities (Lambo, 2006)

Beyond the lack of access to maternal health care services due to economic and cultural factors, conflict and other forms of crime have negative impact on women. According to the UNPF (2002) conflict makes women susceptible to different forms of health threats including insecurity. Similarly, the United Nations Children Education Fund (2001) observed that around the world, conflict has a negative effect on human health and well-being due to lack of access to health care facilities. Snoubar (2016) also agreed that conflict has a deleterious effect on community infrastructure such as health, education and other essential services.

Theoretical Framework

This paperdeployed the subculturaltheory to provide a theoreticalpathway for the study.The Subculturaltheory of crime waspopularized by Wolfgang and Ferracuti (1967). A subculture is a patternedway of life similar in someways but differentfrom the dominant culture in expectations about the members' choice in satisfyingtheirwants (Conklin, cited in Ameh, 2020). The subculture theoryassertsthat all groups have conductnorms and values that are sharedamongmembers. Thesenorms and values shapemembers' lives by defining crime and violence as eitherappropriate or inappropriate in certain situations. While the larger or main stream culture defines acceptable conductnorms and prescribesappropriate sanctions, members of subcultures often go againstsuch prescriptions in furtherance of the goals of theirown subculture, therebygivingrise to a culture of conflict. The theoryaddedthatthe more integratedinto a

subculture of violence and negative influence an individual or group is, the greater the likelihood of involvement in crime.

Critiques of the theory, particularlyConklin (2010), contendthatthoughsome groups, regions and countries do have high rates of criminal violence, thereis no strongevidencethat a subculture of violence is the cause of the criminalacts.

Within the context ofthisstudy, the subculturaltheory has high validity. This isbecause the main stream Hausa cultural milieu, has conductnormsthat not onlyabhorcriminalactivitiessuch as banditry, abduction, kidnapping, armedrobbery and terrorism, but alsoprescribeappropriatesanctions for their violation. However, the emergence of the Boko-Haram Islamistsect in northern Nigeria in 1999, withitsdisavowal of Western values, has createdarmies of renegadesubcultural groups whosemembers engage in banditry, abduction, kidnapping, terrorism, killing and maiming as well as destruction of critical social infrastructures, includinghealth care facilities, in open defiance of the laws of Nigeria. The activities of bandits in Zamfara State have, in addition to the destruction of health care facilities, alsodeniedwomen of reproductive age, the benefits of such important infrastructure.

Materials and Methods

The study adopted a cross-sectional survey design. Questionnaire was adopted as the primary data collection instrument, and it was supplemented by the Key Informant Interview (KII) Guide.The location of the study was Zamfara State, Nigeria. The State has 14 Local Government Areas, namely, Anka, Bakura, Birnin-Magaji, Bukkuyum, Bungudu, Gummi, Gusau, Kaura-Namoda, Maradun, Maru, Talata-Mafara, Shinkafi, Tsafe and Zurmi. Purposive sampling technique was used to select only local government areas that were mostly affected by insecurity. The selected Local Government Areas were Anka, Tsafe, Shinkafi, Bukkuyum, Kaura Namoda and Zurmi, spread across the Central, North and West Senatorial zones of the State. The sample size of the study consisted of 400 women between the ages of 15 and 35years. The inclusion criteria for the questionnaire respondents were that they must be women of reproductive age and resident in the study area.

Atotal of four hundred questionnaire copies were administered by pre-trained Research Assistants with social science background and good knowledge of the language and culture of the respondents. To mitigate the literacy barrier in filling out the questionnaire copies, the

research assistants (where necessary) read out the items in the questionnaire in the indigenous Hausa language and ticked the relevant choices made by the respondents. Consequently, out of the 400 administered copies, 382, representing 95.5 %, were retrieved.The questionnaire items were coded and processed using the Statistical Package for Social Sciences (SPSS) Version20. The KII was conducted in five sessions with 30 informants made up of traditional and religious leaders, youth leaders, farmers, members of medical associations and nurses and midwives. The transcribed feedbacks from the KII were qualitatively analysed to complement responses from the questionnaire.

The essence of using the mixed method was to compare and cross-check information and interpretation from more than one source (Blumer). In addition, data confirmed by more than one source have greater reliability than those from only one source (Blumer). Presented and analysed below, are the data from the questionnaire administered on respondents in the study area.

Results and Discussion

The researchers measured all the survey items described below, combining both open-ended and structured questionnaire items.

Table1: Socio-Demographic Characteristics of Respondents

Variable		Frequency (f)	Percent (%)
AgeBelow 15		12	3.1
16-25		144	37.7
	26-35	147	38.5
	36-49	79	20.7
	Total	**382**	**100**
Marital Status	Married	278	72.8
	Single	13	3.4
	Widowed	65	17.0

	Divorced	26	6.8
	Total	**382**	**100**
Level of Education No formal education		89	23.3
Quranic education		145	38.0
	Primary education	71	18.6
Secondary		48	12.6
Post-secondary		29	7.6
	Total	**382**	**100**
Occupation Petty trading		47	12.3
Farming		130	34.0
	Business	74	19.4
	Civil servant	21	5.5
	Housewife	110	28.8
	Total	**382**	**100**
Annual Income	20,000	255	66.8
	50,000	105	27.5
	100,000	21	5.5
	200,000 & above	1	0.3
	Total	**382**	**100**
No. of Children	1-3	73	19.1
	4-6	134	35.1
	7 -9	124	32.5
	10 & above	51	13.4
Total		**382**	**100**
Religion	Islam	370	96.9
	Christianity	12	3.1
	Total	**382**	**100**

Source: Field Survey, 2023

The result in table 1 indicated that majority of respondents represented by 76.2% (291) were within the age bracket of 16 and 35 years. Those within the 31years and above bracket constituted 20.7% (79) of the sampled population while those who were 15 years and below, accounted for 3.1% (12) of the sampled population. This means that majority of the respondents were within the reproductive age bracket and would therefore, need maternal health services. In terms of marital status, majority of the respondents represented by 72.8 % (278), were married while the least category represented by 3.4% (13) were single. This result is in tandem with the National Demographic Health Survey (NDHS, 2019) report which stated that 75% of women in Nigeria are either married or living together with a partner.

On educational distribution, majority of respondents represented by 38% (145) had Quranic education while the least segment had post-secondary education represented by 7.6%

(29). It is obvious that majority of the women in Zamfara State have no formal education. This is consistent with the report of the National Bureau of Statistics (NBS, 2019) which stated that 75.0% (the third highest, after Sokoto and Kebbi State in Nigeria) were women between 15 and 49years who have no formal education. The occupational distribution of the respondents indicated that majority of the respondents represented by 34% (130) were into farming while the least group, 5.5% (21) were civil servants. A plausible explanation for the dominance of the women folk in the sample is because farming is the primary occupation of the people of Zamfara State, which prides itself with the slogan "farming is our pride".

The annual income of the respondents showed that majority of the women represented by 66.8% (255) had an annual income of less than N20, 000 while 0.3% (1) had an annual income of N200, 000 and above. This is not unexpected because: (a) The National Demographic Health Survey (2019) identified 54.4% of the people living in Zamfara State as falling within the lowest wealth quintiles; (b) Zamfara State is ranked the 6th poorest State in Nigeria with 73.98% of its population being below the global poverty line (National Bureau of Statistics, NBS, 2020).

With regards to the number of children, majority of the women had 4-9children (67.3%) while the least segment had 13.4% had 10 children and above. This is expected because the total fertility rate (TFR) in North West Nigeria to which Zamfara State belongs, is 6.6, a figure, which is the highest in the 6 geo-political zones in Nigeria (NDHS, 2019). Regarding religious affiliation, majority of the respondents practiced Islamic religion, represented by an over-whelming 96.9% (370) while the others represented by 3.1% (12) were Christians. The dominance of Islam in the study area is because Zamfara State is predominantly a Muslim-dominated State.

Table 2: Distance from Residence to the Nearest Primary Healthcare Centre

Variable	**Frequency**	**Percent**
5km	26	6.8
10km	174	45.5
15km	182	47.6
Total	**382**	**100.0**

Source: Field Survey, 2023

Data in table 2 indicated that majority of the respondents, 93.2 % (356) had to travel 10-15 km to access the nearest primary Healthcare Centre while 6.8% (26) were within a 5km radius. This result has two implications for women and access to maternal health services. First,

the distance of 10-15km which women of reproductive age in Zamfara State have to traverse in order to access to maternal health services is far flung and tortuous. Several studies have shown that distance can influence health care seeking behaviors in expectant mothers (Gabrysch & Campbell, 2009). In addition, the 10-15km distance exceeds the benchmark 5km radius to the nearest health facility recommended by the WHO (Ashiagbor, etal, 2020, Aduragbemietal, 2023). Due to the spiraling level of insecurity especially in rural communities in Zamfara State, longer distances to such facility expose women of reproductive age to security threats in their bid to access maternal health services. In fact, more often than not, bandits block rural and semi urban roads at random and abduct people, including women, girls and children. For example, on 3rd December 2021, bandits blocked the Shinkafi – Kaura Namoda – Gusau and the Shinkafi – Isa - Sabon Birni roads and kidnapped passengers (Babangida, 2021).

Similarly, at about 11.00am on the 4th of October, 2022, bandits blocked the highway from Yankara-Tsafe before Magazu town and operated for three hours (Umar, 2022). On June 12th 2022, gunmen held several motorists hostage for hours and abducted in the process, more than 50 wedding guests travelling along the Sokoto-Gusau Road (Babangida, 2022, Salaudeen, 2022 & Sahara Reporters, 2022). Therefore, with roads under daily attacks by bandits, most pregnant women are afraid of travelling long distances to access maternal health services.

Table 3: Impact of Insecurity on Access to Maternal Health care service

Impact	**Frequency (f)**	**Percent**
Fewer women visit maternal health facilities for antenatal	31	8.1
Drug and medical supplies are inadequate	22	5.8
Destruction of health facilities in many rural areas	35	9.2
Many health personnel relocated on account of insecurity	42	11.0
Avoidable deaths from lack of medical care while giving birth	7	1.8
Pregnant mothers in the community patronize quacks and traditional birth attendants	32	8.4
All of the above	213	55.8
Total	**382**	**100.0**

Source: Field Survey, 2023

The data in table 3 showed that insecurity has negative impact on women's access to maternal health services in the study area. Results from the collected data indicated that majority

of the respondents represented by 57.9% (221) were of the view that insecurity negatively affected women's access to maternal health services. The impacts range from the incidence of fewer women visiting maternal health facilities for antenatal, inadequacy of drugs and medical supplies as depleted stocks could not be restocked due to insecurity, destruction of health facilities in many rural areas, to relocation of many health personnel from security prone arrears to safer locations. Added to these are cases of avoidable deaths of pregnant women due to lack of medical care while many pregnant mothers in the community resort to patronizing quacks and traditional birth attendants.

Discussion of Findings

Findings from the study indicated that insecurity has negatively impacted access to maternal services by women of reproductive age in Zamfara State in diverse ways. These include relocation of medical health personnel, destruction of rural health facilities, decline in the number and frequency of women visiting health facilities for medical care and shortage of drugs and medical consumables. Feed backs from Key Informant Interviews painted a very pathetic picture of the damage done by insecurity with regards to access by women of reproductive age in select Local Government Areas spanning the three senatorial districts of Zamfara State. The views expressed by many of these key informants are reflected in the discussion relating to the issues underneath.

(i) Relocation of Medical Health Personnel on account of Insecurity

Many of the key informants were of the view that insecurity has forced many health workers to relocate from Zamfara to other States in Nigeria for fear of their safety. The respondents opined that constant kidnapping especially in rural communities by bandits has made medical personnel to move out of Zamfara State for their protection.One of the key informants in Tsafe Local Government who was interviewed on the 2nd of October, 2023, lamented thus:

> Because of insecurity, women in the community are not able to visit the hospital due to the constant blockade of roads in the town by bandits. In addition, most of the medical staff working in our area have relocated to Gusau town for fear of their safety.

Similarly, in Shinkafi LGA, a 42 year old civil servant told the researchers that most of the medical staff providing services in the village are afraid of travelling to the health centres

where they are posted because bandits invade the roads at random, and stop and search vehicles in the course of which many people, including health care providers, get kidnapped. This, to him, has discouraged health workers from coming to work for fear of their safety. Secondary data also support the fact that medical personnel have fallen victims to kidnapping on several occasions in the State. For example, on the 26th of March, 2019, bandits abducted a North Korean Medical doctor attached to the Tsafe Local Government General Hospital in Zamfara State, Dr. Jen Sunail (PM News, 2019).

Also, on the 28th June, 2022, bandits abducted three medical personnel at the General Hospital Dansadau in Maru LGA of Zamfara State (Babangida, 2022). The Safeguarding Health in Conflict Coalition (SHCC, 2022) revealed that abduction of health personnel incidents doubled in Zamfara State in 2022 from two in 2021 to four. Worried by the incessant attack on its members, the Nigeria Medical Association (NMA), the umbrella union for medical doctors in Zamfara State gave the Zamfara State government a two-week ultimatum to address the security challenges facing its members or risk shutting down all health centres in the State.Generally, violence against medical personnel in Nigeria has been on the increase. According to the Safeguarding Health in Conflict Coalition (SHCC, 2022) there were 43 incidents of violence against or obstruction of health care services in Nigeria in 2022, compared to 56 in 2021. In these incidents, 37 health workers were kidnapped, seven others were killed, and health supplies were looted from pharmacies and health centers (SHCC, 2022). According to Gulumbeetal (2023), in the last decade, over 70 health workers have been kidnapped in Zamfara State.

(ii) Destruction of Health Facilities in Rural Areas

Evidence from field data indicated that the activities of bandits have led to the destruction of several health facilities in rural communities in Zamfara State. One of the informants in Anka Local Government Area, who was interviewed on the 3rd of October, 2023 told the researchers that most of the health facilities in their communities have been destroyed by bandits, thereby making it difficult for people to access medical care. According to him:

> If not for the intervention of the NGOs that have been providing free medical services to the people of our communities, life would not have been easy for the community.

The disclosure by the informant with regards to the destruction of medical facilities by bandits resonated with the views of the Executive Secretary, Zamfara State Primary Health Care Board Dr. Hussaini Anka, who lamented that "out of over 700 PHCs in this State, only about 200 are accessible while the remaining 500 are not functioning due to insecurity" (Mustapha, 2023). It is on record that on the 30th July, 2021, bandits attacked the General Hospital Dansadau in Maru LGA (Nathaniel, 2021). Similarly, on the 16th January, bandits attacked and ransacked a Primary Health Care facility at Makosa village in Zurmi Local Government Area (Sahara Reporters, 2020).

Studies such as those of (Adamu and Muhammed, 2021; Okojie &Ahmed, 2022) indicated that bandit attacks have led to the destruction of key medical infrastructures as well as the disruption of essential social services particularly in Anka Local Government Area of Zamfara State. Okojie and Ahmed reported that 23 of the 41 Primary Health Care facilities in Anka LGA were destroyed by bandits, thereby exposing women of reproductive age and others in dire need of medical attention in the area to untold distress and avoidable trauma.

(iii) Decline in the Number of Women Visiting Maternal Health Facilities

The menace of insecurity has impacted negatively on the number of women who visit maternal health facilities as revealed by the study. In an October 10, 2023 interview, in Tsafe Local Government Area, a 32-year old informantexplained that the activities of bandits had affected the patronage of the health facilities in their community, lamenting that many women died from avoidable deaths as they could not access health services in the area. The story is the same in in Shinkafi LGA where a45-year old farmer told the researchers that because of insecurity, most of the medical dispensaries have been shut down thereby affecting women's access to medical services.

Another informant in Anka LGA, a civil servant, explained the impact of insecurity on women's access to maternal services as follows:

> Most times, you will see a pregnant woman in labour in my village that cannot come to the hospital due to insecurity and this gives rise to prolonged labour and at times, the mother and baby end up losing their lives.

Research has shown that from 2019 to 2021, antenatal attendance across the 41 health facilities in Anka LGA dropped from 13.1% to 6.5%, while still birth deliveries and routine immunization dropped from 7.7% to 3.4% and 8.8% to 4.2% respectively. Also, the average weekly attendance rate of patients dropped from 20 patients to 5 in most of the PHCs (West Africa Network for Peace building Report, 2019; Zamfara State strategic Health Plan 2010-2015) as a result of insecurity. This outcome has grave implication for the health of patients, particularly those on regular antenatal and postnatal appointments at such health facilities. One hidden implication is that the drop in hospital visitation as a result of insecurity could make some of the women to resort to the services of quacks and other predatory medical service providers in the study area.

(iv) Shortage of Drugs and Medical Consumables.

This study has shown that insecurity has led to drastic shortage in the supply of drugs and other medical consumables in the study areas. Given that bandits often block rural and urban roads in Zamfara State, people supplying drugs to health care facilities, especially in rural communities are forced to rethink plying such routes for fear of being kidnapped, thereby creating a supply gap problem. The implication is that the few health care centres that still manage to attend to patients even in the face of insecurity, eventually run out of medical supplies and other consumables, thus compounding the woes of needy patients.

Conclusion and Recommendations

This empirical studywas primarily conducted to assess the impact of insecurity on access to maternal health services by women of reproductive age in selected rural communities in Zamfara State. Deriving from the study findings, the researchers conclude that insecurity has negatively impacted access to maternal services by women of reproductive age in Zamfara State in diverse ways; among them, relocation of medical personnel, destruction of rural health facilities, decline in the number and frequency of women visiting health facilities for medical care and shortage of drugs and medical consumables. These findings may lead to a further reduction in the percentage of access to health services by women of reproductive age in Zamfara State from the 2018 figure of 40% as released by the National Demographic Health Survey, to something much worse.

Recommendations

Consequent upon the findings of this study, the following recommendations are put forward to aid policy formulation and possible implementation, with a view of enhancing access to maternal health services by women of reproductive age in bandit-ravaged communities in Zamfara State.

(a) Evidence in both field and extant literature indicated that the upsurge in insecurity has led to massive relocation of medical personnel, not only from rural communities but also out of Zamfara State as a whole. The implication of this on maternal health and economic productivity in the State is very dire, indeed. It is hereby recommended that urgent steps should be taken by both the Federal and Zamfara Sate Governments to stem insecurity through the deployment of both kinetic and non-kinetic measures, including constructive engagement with the bandits to lay down their arms and embrace peace. When this is done, the State Government must embark on sustained confidence-building measures such as improved welfare and life-insurance packages to woo back run-away medical professionals as well as recruit new ones.

(b) The Zamfara State Government should also take inventory of all medical health infrastructures destroyed by bandits with a view of embarking on a comprehensive reconstruction of such facilities. The services of Community vigilante groups should be employed to safeguard such critical infrastructure while traditional and community leaders must assume ownership of the facilities by protecting them against destruction by bandits and other criminal elements in the various rural communities.

(c) As part of security measures to protect health facilities, trenches should be dug round them to ward off intruders and other criminally-minded persons.

(d) Going forward, the location and building of new health facilities by both the State and Local Governments in Zamfara State, should take cognizance of the 5-Km radius minimum distance recommended by the World health Organization as against the current 10-15Km radius. The proximity of health centres to rural communities, apart from stemming their possible destruction by bandits, encourages high patronage by women of reproductive age.

(e) Findings indicated that aside the kidnapping, maiming and killing of innocent persons, the menace of banditry also created serious humanitarian crisis in Zamfara State. The

Zamfara State Government, through the Ministry of Humanitarian Affairs, should embark on measures such as skills acquisition, economic empowerment and poverty alleviation programs to provide sustainable succor for the 1,385,625 people displaced by bandits, most of whom are sheltered in poorly managed and vulnerable IDP camps.

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