***Journal of Environmental Issues and Agriculture in Developing Countries***
Volume 18, Number 1, April 2026
ISSN(p): 2141-2731 ISSN(e): 2795-2967
*Published By*
*International Centre for Integrated Development Research, Nigeria*
*In collaboration with*
*Copperstone University, Luanshya, Zambia*

# Distribution and Accessibility of Healthcare Facilities in Rural Areas of Akwa Ibom Northwest

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## ABSTRACT

*The study assessed the distribution and accessibility of healthcare facilities in rural dwellers of the Akwa Ibom Northwest Region, Nigeria. A sample of five Local Government Areas, fifteen rural communities, and 354 households was selected for the study via multi-stage random sampling. The total count and types of healthcare facilities were extracted from the official health directory of the Akwa Ibom State Ministry of Health, while a structured questionnaire was used to collect data on the household accessibility to healthcare facilities in the region. Geographic Information Systems (GIS) mapping techniques and descriptive statistics - mean and simple percentages were employed to analyse health facilities distribution and accessibility to health facilities, respectively. Findings showed a largely skewed distribution of healthcare facilities, particularly the secondary healthcare facilities, leaving many households unable to access certain healthcare needs within a minimal travel distance, time, and cost. These findings re-echo the calls for stakeholders in the health sector to prioritize access as a key factor in rural healthcare delivery.*

**Key words**: *Healthcare facilities, rural dwellers, rural communities, Geographic Information Systems, mapping techniques*

## 1. INTRODUCTION

Healthcare facilities refer to places or locations where medical services are provided to cater for the health needs of the people. It ranges from little facilities such as health post, primary health centers, clinics, to higher order health facilities such as general hospital and specialists hospitals. Healthcare facilities are crucial components of the healthcare delivery system as they seek to provide preventive, diagnostic, curative and

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rehabilitative health services to individuals and communities (Kumar, 2026). While the Primary healthcare Centers provides basic healthcare services to communities, the hospitals provide comprehensive medical services including emergency care and specialized treatments.

Since the declaration of the Covid-19 pandemic, countries around the world including Nigeria have declared a state of emergency in the healthcare sector. However, the World Health Organization (2022) and the United Nations (2023) through its Sustainable Development Goals have advised stakeholders in the health sector to prioritize "access to healthcare" through equitable distribution and accessibility to healthcare facilities in the communities. In fact, the distribution and accessibility of healthcare facilities are the major challenges that affect healthcare delivery in Nigeria as well as other developing nations. According to WHO (2024), the health of rural dwellers and remote communities are often endangered due to limited access to healthcare facilities.

In Nigeria, emerging healthcare initiatives such as the "Primary Healthcare under one Roof" (PHCUOR) seeks to strengthen the management of the healthcare sector for effective healthcare delivery. The issue of accessibility to healthcare facilities still remains largely unresolved. Theoretically, accessibility to healthcare facility is defined as the ease at which potential healthcare seekers could reach and obtain care in a given area (Nsofor and Ukaegbu, 2025). In view of the above, it is clear that improving access to health facilities can significantly enhance community health while limited access endangers both individual and community health especially in rural areas such as Akwa Ibom Northwest. An area peopled by predominantly rural dwellers, the Akwa Ibom Northwest region faces a major challenge of providing accessible and quality healthcare services to her teaming population. Unarguably, the equitable and fair distribution of healthcare facilities is by far crucial for enhancing access to healthcare in the area. The underlying questions therefore are as follows: what is the stock of healthcare facilities and how are the different types of healthcare facilities distributed in the area? Are the healthcare facilities accessible to the people in terms of minimal travel distance, travel time, travel cost and waiting time? Essentially therefore, this study was designed to interrogate the issues highlighted and also bridge knowledge gap on the distribution and accessibility of healthcare facilities in the area.

## 2. Conceptual Clarification

Most studies focused their effort to evaluate and quantify the accessibility of healthcare facilities in relation to the populations they serve. While all studies shared this fundamental objective, their specific aims were tailored to their respective

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contexts and research questions. For example, McBride and Moucheraud (2022) focused on assessing the capacity and reach of existing Primary Healthcare Centers (PHCs) in the tribal areas of Gujarat, India. Their work was driven by a need to understand the physical and functional gaps in healthcare access within a rural, socio-economically vulnerable population. Similarly, Umar, Musa and Ibrahim (2024) aimed to conduct a spatial analysis of PHC facility distribution in a specific Nigerian senatorial zone to determine if the existing infrastructure met the population-to-facility ratios recommended by the World Health Organization (WHO). This objective was particularly relevant in the context of Nigeria's ongoing struggle with rural healthcare deficits. In contrast, Sun et al. (2025) had a more innovative and technological objective. Their goal was not just to measure accessibility but to pioneer a Geographic Information System (GIS)-based spatial profiling methodology to create a dynamic decision support system for urban health planners in Jeddah City, Saudi Arabia. This was a forward-thinking approach that shifted the focus from a one-time assessment to creating a sustainable tool for continuous planning and resource management.

All three studies relied heavily on Geographic Information System (GIS) techniques as their primary methodological tool, demonstrating the power of this technology in spatial health analysis. However, the specific techniques deployed were distinct, reflecting the different research objectives. McBride and Moucheraud (2022) used an Average Nearest Neighbor Analysis to statistically determine the spatial pattern of facilities, finding a random dispersion rather than a planned one. They coupled this with a geospatial assessment to model accessibility based on travel time and distance, revealing "dark zones" with limited reach. Umar, Musa and Ibrahim (2024) employed a combination of Neighborhood and Network Analysis, which allowed for the measurement of travel distances along existing road networks and a detailed analysis of facility catchment areas. This method was crucial for comparing actual travel distances against WHO standards. Sun et al. (2025) innovatively developed a new methodology by computing Accessibility Indicators Scores and delineating demand-based catchment areas. This approach enabled them to quantify the level of accessibility across different urban areas and create a spatial framework that could be used as a practical planning tool, moving beyond a simple descriptive analysis.

The studies consistently found that healthcare facility distribution was inadequate and uneven, a finding that has significant implications for public health. McBride and Moucheraud (2022) revealed a critical issue of PHCs in India operating far beyond their intended capacity, with some facilities serving as many as 51,000 individuals, a number that far exceeds recommended benchmarks. They also highlighted that while some areas were well-served, others, particularly in the

northern and eastern regions, faced substantial accessibility gaps due to poor road networks. Similarly, Umar, Musa and Ibrahim (2024) found a pronounced quantitative deficit in Nigeria. Despite the fact that most communities were within the WHO's minimum standard for travel distance, the study identified a staggering shortfall of 411 Health Posts, 32 Health Clinics, and 6 Primary Health Centers. This finding underscores the distinction between physical proximity and actual facility availability. Sun et al. (2025), in their urban context, produced a visualization of the spatial mismatch between healthcare service supply and population demand. Their findings confirmed that even in a city setting, the location and number of health facilities were often not congruent with the areas of greatest need, validating the utility of their spatial decision support system.

## 3. **Description of the Study Area**

Akwa Ibom Northwest also called Ikot Ekpene Senatorial District is one of the Geo-political divisions in Akwa Ibom State alongside Eket and Uyo Senatorial districts. Located between Latitude $4.65^0$ North and Longitudes $7.97^0$ East, the areas in composed of ten Local Government Areas - Ikot Ekpene, Abak, Essien Udim, Obot Akara, Ika, Etim Ekpo, Ukanafun, Oruk Anam, Ikono and Ini. In terms of settlement structure, all the LGAs in the region are rural except Ikot Ekpene and Abak. The Area is home to about 2.5 million people based on 2026 projected population by the National Burean of Statistics and is peopled by largely Annang tribe with Ikono and Ini bearing a pocket of Ibibio nation. Due to enormous mineral and agricultural endowment, the dominant occupation in the area includes farming, mining and petty trading.

In terms of Healthcare, the area boasts of 104 primary Health centers, 10 general hospitals and a number of private clinics. In Figures 1, the map of the study area is displayed.

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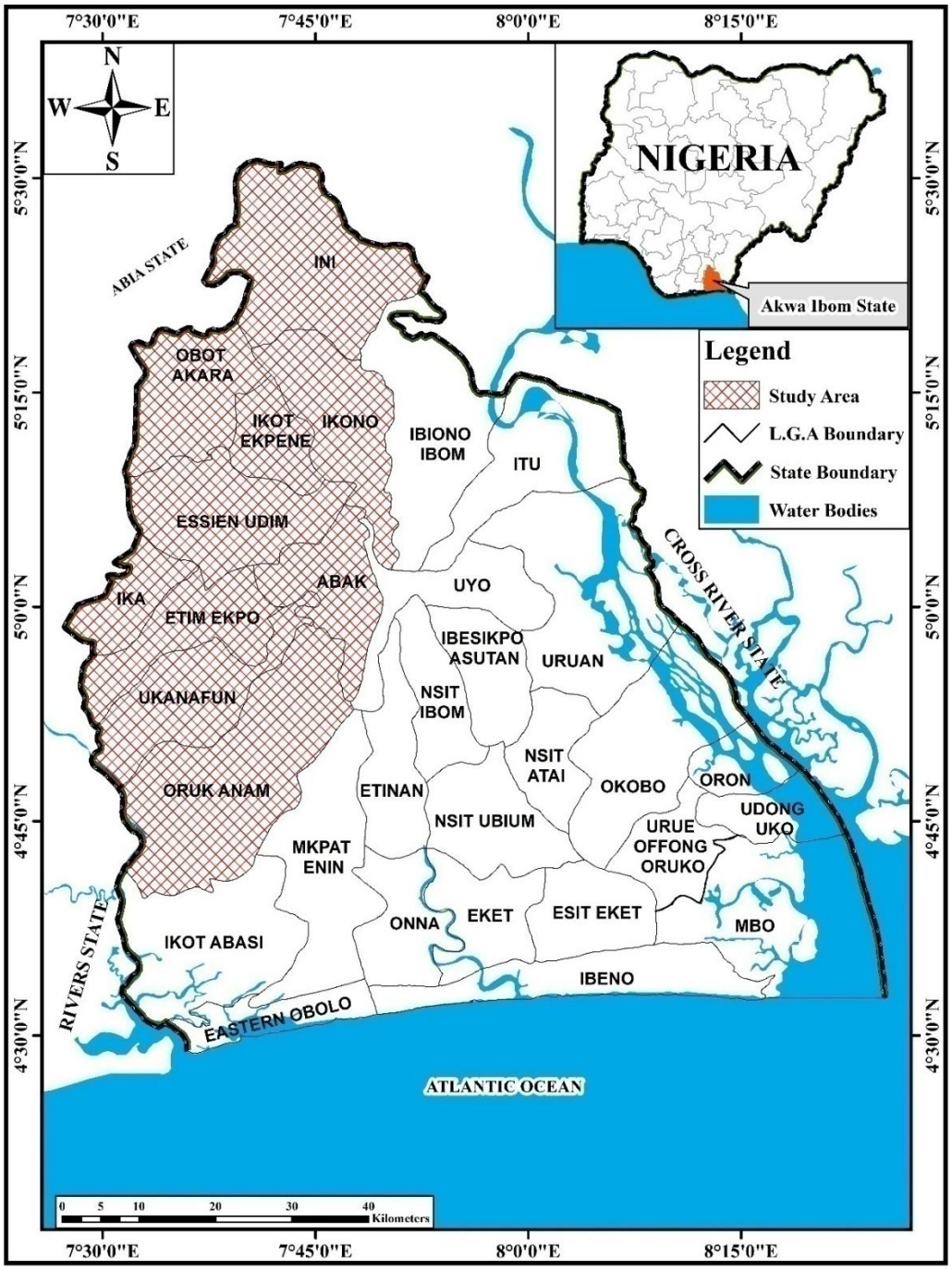


Fig 1: Akwa Ibom State showing the Study area

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## 4. MATERIALS AND METHOD

### i. Study Design

The study was designed as a cross sectional survey of the stock of healthcare facilities and household accessibility to the healthcare facilities in the study area.

### ii. Data Requirement

Two sets of data were required for the Study. These included data on types and stock of healthcare facilities and data on household accessibility to healthcare facilities. Table I display the details of the data set and the specific variables.

**Table 1:** Dataset

| SN | Data Set | Variables |
|---|---|---|
| **1** | Data on the types of healthcare facilities | Primary Health Centre (PHC), General Hospitals, |
| **2.** | Data on the level of accessibility | Travel cost<br>Travel distance<br>Travel time<br>Waiting time |

***Source:*** Survey, 2026

### iii. Sample/Sampling Procedure

The multi-stage random sampling was employed to select sample for the study. These include sample of Local Government Areas, rural communities and household/respondents. Stage one entails the selection of five (5) local government areas out of a total of ten (10) local government areas, in the study area. A sampling fraction of 50% justified the use of five local government areas for the study. In stage two, three communities were randomly selected from each local government area to yield a total of 15 sampled communities. In the third/final stage, households or respondents were selected proportionally in each sampled community to yield a total of three hundred and eighty-four (384) respondents. In Table 2, the detail of sampled LGAs, communities and respondents is presented.

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**Table 2:** The Study Sample

| Local Government Area | Name of communities | Number of Questionnaires Samples for Each Local Government Area | Number of Questionnaires Sampled in Each community |
|---|---|---|---|
| Oruk Anam | Ikot Okoro | 70 | 24 |
| | Ekparakwa | | 23 |
| | Ukpom Edem Inyang | | 23 |
| **Abak** | Ukpom Abak | 69 | 23 |
| | Abak Ikot Anwan | | 23 |
| | Oku Abak | | 23 |
| **Essien Udim** | Ikpe Annag | 96 | 32 |
| | Ekpenyong Atai | | 32 |
| | Nsasak | | 32 |
| **Ikono** | Uruk Ata Ikot Ekpor | 66 | 22 |
| | Ikot Akpakpan | | 22 |
| | Eka Uruk Essiet | | 22 |
| **Etim Ekpo** | Ibiaku Ntok Akpo | 84 | 28 |
| | Ukpom | | 28 |
| | Asanting Utit Ikpe | | 28 |
| **Total** | | 384 | 384 |

***Source:*** Survey, 2026

iv. **Data collection**:

The data on types/stock of healthcare facilities were collected from the official directory of health facilities in Akwa Ibom State as published by the State Ministry of Health and the Hospital Management Board. During fieldwork, the Global Positioning System (GPS) device was used to track the exact coordinates/location of the health

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facilities for further analysis of the distribution pattern of the healthcare facilities. Whereas the Questionnaire of Healthcare Accessibility (QHA) constructed by the researchers was used during fieldwork to collect data on the respondents (Households) accessibility to healthcare facilities.

v. **Data Analysis**

The Geographic Information Systems Software (Arc GIS) was utilized to map the distribution of Healthcare Facilities in the study area. This was done by digitizing the base map of the area, conversion of data and visualization analysis. Descriptive statistics – mainly mean and simple percentages was used to assess the status of household accessibility to healthcare facilities.

vi. **Ethical Consideration**

The study was conducted in line with extant research ethics in the humanities. Due approval was obtained from relevant government officials to access secondary data while the consent of the household participants was sought and obtained. The identity and personal data of the respondents was expunged from the analysis. There was no compulsion or oppression of participants in the study.

vii. **Conflict of Interest**

None declared in the study.

## 5. RESULTS

### i. Stock and Distribution of Healthcare Facilities in the Study Area

The stock and types of healthcare facilities in the sampled local government areas are presented in Table 3. Accordingly, the stock of primary health center given as 94 far exceeds the number of secondary/general hospitals in the area. This is normal because the general hospitals being referrals require higher threshold population to function optimally. However, the distribution of the primary health centers and the general hospitals are matters of concern as shown in figure 2. Further analysis of the functionality and volume of patronage of the healthcare facilities are presented in Tables 4 and 5.

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**Table 3:** Stock/Types of Health Care Facilities in the Sampled LGAs

| S/N | Local Government Area | Number of Primary Health Facilities | Number of Secondary Health Facilities |
|---|---|---|---|
| 1. | Oruk Anam | 22 | 1 |
| 2. | Ikono | 17 | 1 |
| 3. | Abak | 17 | 1 |
| 4. | Essien Udim | 21 | 1 |
| 5. | Etim Ekpo | 17 | 1 |
| | **Total** | **94** | **5** |

***Source:*** Survey, 2026

**Table 4:** Functional and ownership status of General Hospitals in Sampled Locations

| ID | Latitude | Longitude | Functional | Type | Ownership | LGA_Name | No of patients/ month |
|---|---|---|---|---|---|---|---|
| **1** | 4.993808 | 7.605693 | Functional | Secondary | General Hospital Utu Etim Ekpo | Etim Ekpo | 150 |
| **2** | 5.020716 | 7.816353 | Functional | Secondary | General Hospital Ukpom | Abak | 320 |
| **3** | 5.282166 | 7.713222 | Functional | Secondary | General Hospital Ibiaku | Ikono | 120 |
| **4** | 5.119098 | 7.771988 | Functional | Secondary | General Hospital Ikpe | Essien Udim | 89 |
| **5** | 4.90926 | 7.70791 | Functional | Secondary | General Hospital, Ikot Okoro | Oruk Anam | 92 |

**Source**: Data Analysis

The data collected and presented in Table 4 provides clear quantitative and spatial basis for analyzing the distribution of secondary health facilities in the study area. As data in table 4 indicated, a sample of five hospitals identified by their geographic coordinates (latitude and longitude) and administrative affiliation (LGA) was assessed to determine their functional/ownership status as well as the volume of patronage. It is clear that all five sampled facilities were confirmed to be "Functional," indicating their active role in providing healthcare services to the population. The functionality status of health facilities are foundational element in assessing healthcare access, as non-functional facilities, regardless of their location, cannot contribute to the healthcare need of the people.

Beyond their functional status, the data revealed significant variations in volume of patronage The General Hospital in Abak stands out as a major service hub, with the highest patient count of approximately 320 patients per month. This high

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volume reflect its proximity location to Uyo and Abak urban areas, suggesting as usual, a concentration of healthcare demand in more densely populated regions. In contrast, hospitals in Etim Ekpo, Ikono, Oruk Anam and Essien Udim show considerably lower patient numbers, ranging from 89 to 150 per month. This disparity in utilization highlights potential inequalities in healthcare service delivery and a reflection of varying population densities across the different LGAs. The integration of descriptive, geographic, and performance data within this single table provides a powerful tool for geospatial analysis. The latitude and longitude coordinates allow for the precise mapping of each facility, enabling further analysis of spatial relationships between hospitals, road networks, and population centers. This can be used to model healthcare accessibility and identify underserved areas, thus informing future healthcare infrastructure planning.

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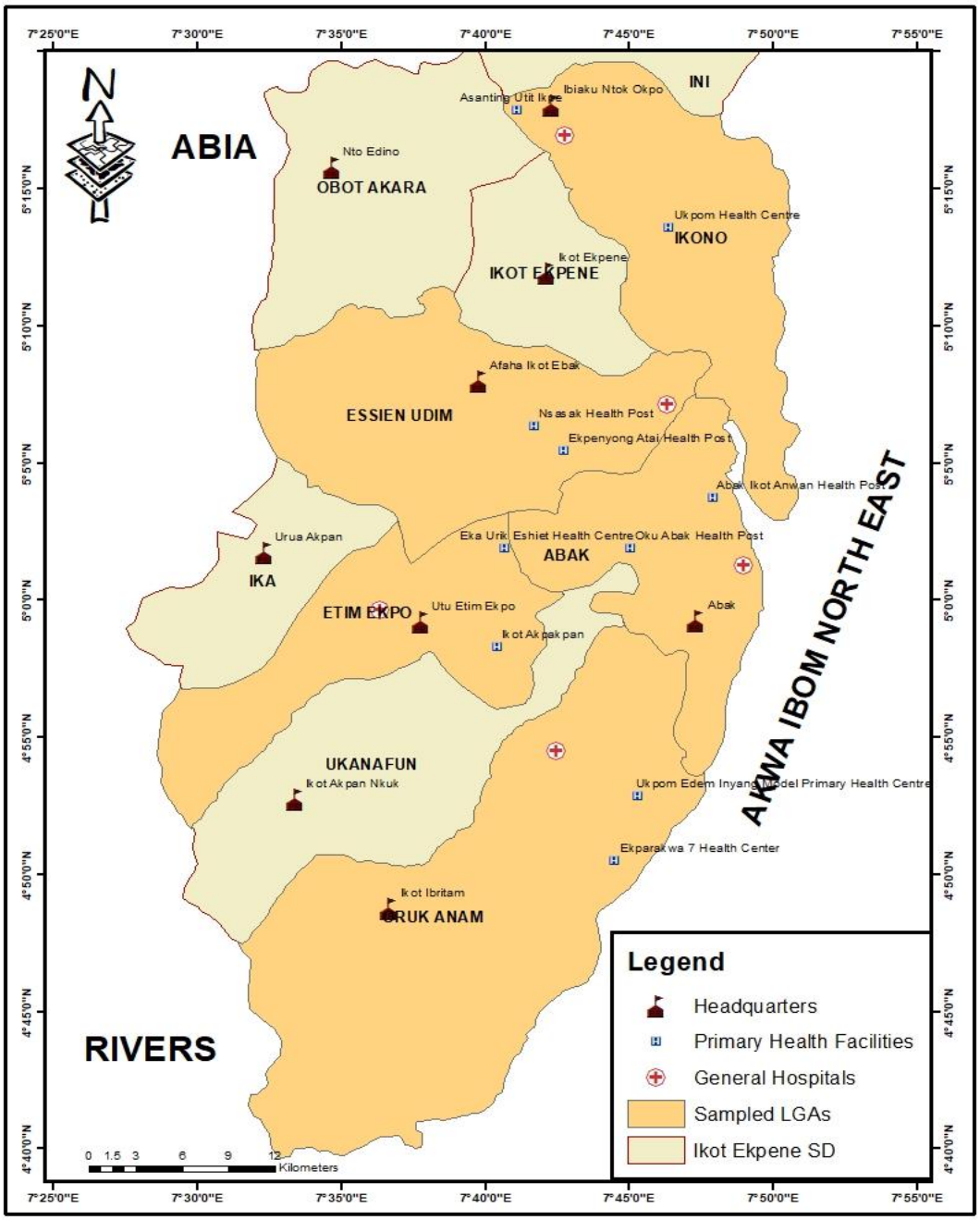


**Figure 2: Distribution of Primary and Secondary Health Facilities in the study area**

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**Table 5:** Functionality and patronage of Primary Health Facilities in Sampled Locations

| S/N | Latitude | Longitude | Functional | Names | LGAs | Patients' Average Volume |
|---|---|---|---|---|---|---|
| **1** | 4.841954 | 7.741799 | Functional | Ekparakwa 7 Health Center | Oruk Anam | 59 |
| **2** | 4.880025 | 7.755124 | Functional | Ukpom Edem Inyang Model Primary Health Centre | Oruk Anam | 48 |
| **3** | 5.061697 | 7.79843 | Functional | Abak Ikot Anwan Health Post | Abak | 41 |
| **4** | 5.031486 | 7.750174 | Functional | Oku Abak Health Post | Abak | 36 |
| **5** | 5.091329 | 7.71196 | Functional | Ekpenyong Atai Health Post | Essien Udim | 45 |
| **6** | 5.105457 | 7.695056 | Functional | Nsasak Health Post | Essien Udim | 47 |
| **7** | 5.031432 | 7.676731 | Functional | Eka Urik Eshiet Health Centre | Etim Ekpo | 46 |
| **8** | 4.971588 | 7.673251 | Not Functional | Ikot Akpakpan | Etim Ekpo | 0 |
| **9** | 5.226793 | 7.77247 | Functional | Ukpom Health Centre | Ikono | 34 |
| **10** | 5.297344 | 7.684573 | Funtional | Asanting Utit Ikpe | Ikono | 29 |

**Source**: Data Analysis

This analysis covers the operational status and patient volume across ten health facilities sampled from five different Local Government Areas. The data reveals a generally high level of functionality, with 9 out of the 10 facilities (90%) reported as operational. The single non-functional facility, Ikot Akpakpan in Etim Ekpo, also records no patient volume, suggesting the lack of function linked to service decay. Patient volume varies significantly across the facilities, demonstrating a diverse demand landscape. The highest average patient volume is 59, recorded at the Ekparakwa 7 Health Center in Oruk Anam. The lowest volume among the functional facilities is 29, at Asanting Utit Ikpe in Ikono. Geographically, Oruk Anam LGA reports the highest average patient traffic (53.5), indicating the greatest utilization among the sampled areas. In contrast, Ikono LGA shows the lowest average volume for a fully functional area at 31.5 patients. The remaining LGAs Abak, Essien Udim, and Etim Ekpo maintain moderate patient volumes, ranging between 36 and 47.

### ii. Accessibility to Healthcare Facility in the Study Area

The variables that indicated the level of accessibility of households to the nearest healthcare facilities are presented as follows:

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**i. Travel cost to the nearest healthcare facilities**

The travel cost to the nearest healthcare facilities was assessed by asking the question – how much do you pay to reach the nearest healthcare facility in your area? The mean travel cost for each sampled community was computed and presented in Table 6.

**Table 6:** Travel cost to the nearest Healthcare Facility

| Community | Mean travel cost in Naira |
|---|---|
| Ikot Okoro | 300 |
| Ekparakwa 7 | 500 |
| Ukpom Edem Inyang | 600 |
| Ukpom Abak | 400 |
| Abak Ikot Anwan | 300 |
| Oku Abak | 300 |
| Ikpe Annag | 500 |
| Ekpenyong Atai | 600 |
| Nsasak | 600 |
| Uruk Ata Ikot Ekpor | 700 |
| Ikot Akpakpan | 500 |
| Eka Uruk Essiet | 400 |
| Ibiaku Ntok Akpo | 300 |
| Ukpom | 500 |
| Asanting Utit Ikpe | 700 |
| **Mean travel cost for the study area** | **486** |

**Source**: Data Analysis

As data in Table 6 indicated, the mean travel cost to the nearest healthcare facility for the study area is N486. This amount is by far higher than expected for rural areas where there is endemic poverty. The relatively higher travel cost can however be attributed to the limited transport Service and poor road conditions in most rural communities. On the whole, the data indicate that 9 representing 60 percent of the sampled communities spend far more than the study area average of 486 Naira as travel cost to the nearest healthcare facilities. Of the 9 communities, 5 including Ukpom Edem Inyang, Ekpenyong Atai,uruk ata ikot Ekpor and Asanting utit ikpe remain the most vulnerable communities in terms of high travel cost. Households in those communities spend between 600 and 700 Naira as travel cost to the nearest healthcare facilities.

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**ii. Distance to the Nearest Healthcare Facilities**

Respondents were asked to state the approximate distance from their dwelling to the nearest healthcare facilities. Based on their responses, the mean distance for each community were computed and results presented in Table 7.

**Table 7:** Distance to Nearest Healthcare Facilities

| Community | Kilometers |
|---|---|
| Ikot Okoro | 2 |
| Ekparakwa 7 | 3 |
| Ukpom Edem Inyang | 5 |
| Ukpom Abak | 2 |
| Abak Ikot Anwan | 2 |
| Oku Abak | 2 |
| Ikpe Annag | 5 |
| Ekpenyong Atai | 6 |
| Nsasak | 7 |
| Uruk Ata Ikot Ekpor | 5 |
| Ikot Akpakpan | 5 |
| Eka Uruk Essiet | 4 |
| Ibiaku Ntok Akpo | 3 |
| Ukpom | 6 |
| Asanting Utit Ikpe | 7 |
| **Average** | 4.9 |

**Source**: Data Analysis

Evidence arising from data in Table 7 confirmed the fact that the distribution of Healthcare Facilities in the study area fall short of the principle of centrality. This is so because majority of the healthcare facilities are located far away from the communities they are supposed to serve. For instance, households in Nsasak, Asanting, Ekpeyong and Ukpom may have to travel longer than 5km to access healthcare. This is quite challenging and violates the World Health Organization benchmark for health Facilities to the located within 2.5km from dwelling particularly in rural areas. Furthermore, the mean distance for the study area obtained as 4.9km show that the level of accessibility to healthcare is largely poor in the study area.

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### iii. Travel time to the Nearest Healthcare Facilities

The respondents were asked to give the approximate travel time from home to the nearest healthcare facilities using the dominant travel mode which is motorcycle. Based on their responses the mean travel time for each sampled community was computed and presented in Table 8.

**Table 8:** Mean travel time to the nearest Healthcare Facilities

| Community | Mean travel time in minutes |
|---|---|
| Ikot Okoro | 20 |
| Ekparakwa 7 | 30 |
| Ukpom Edem Inyang | 60 |
| Ukpom Abak | 15 |
| Abak Ikot Anwan | 15 |
| Oku Abak | 15 |
| Ikpe Annag | 70 |
| Ekpenyong Atai | 70 |
| Nsasak | 70 |
| Uruk Ata Ikot Ekpor | 45 |
| Ikot Akpakpan | 45 |
| Eka Uruk Essiet | 30 |
| Ibiaku Ntok Akpo | 20 |
| Ukpom | 60 |
| Asanting Utit Ikpe | 75 |
| **Average travel time for the study area** | 42.6 |

**Source**: Data Analysis

Based on the results in Table 8, the study area have a mean travel time of 42.6 minutes to the nearest healthcare facilities. This means that an average household need to spend more than 30 minutes on the road to access healthcare. The WHO recommended a minimum of 30 minutes travel time by dominant travel mode to reach healthcare facilities within rural areas. With more than 60 percent of the communities having travel time above the study area average, it is clear that the area is by far lower by Healthcare accessibility standards

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### iv. Average Waiting Time at Healthcare Facilities

The average waiting time at the healthcare Facilities for each sampled community was computed Based on respondents' statement on the time spent at healthcare facilities between arrival and treatment. The results are presented in Table 9

**Table 9:** Average Waiting Time at Healthcare Facilities

| Community | Average waiting time in minutes |
|---|---|
| Ikot Okoro | 45 |
| Ekparakwa 7 | 100 |
| Ukpom Edem Inyang | 60 |
| Ukpom Abak | 30 |
| Abak Ikot Anwan | 30 |
| Oku Abak | 30 |
| Ikpe Annag | 120 |
| Ekpenyong Atai | 120 |
| Nsasak | 100 |
| Uruk Ata Ikot Ekpor | 75 |
| Ikot Akpakpan | 75 |
| Eka Uruk Essiet | 60 |
| Ibiaku Ntok Akpo | 60 |
| Ukpom | 120 |
| Asanting Utit Ikpe | 120 |
| **Average for the study area** | 76.3 |

**Source**: Data Analysis

Based on the data captured in Table 9, it is evident that health care seekers in the study area spent an average of 76 minutes before being attended to by healthcare officers. The waiting time recorded is by far greater than the average of 15 minutes recommended by the WHO. In some communities, the patient spend 2 hours plus before medical attention was administered. The situation are attributed to the dearth of healthcare personnel posted to rural areas.

## 6. Discussion of Findings

The findings from this study confirm that the healthcare landscape in the area is characterized by a mix of facility types. The secondary health facilities sampled were functional. However, the spatial data underscores a significant disparity in patient utilization, with the General Hospital in Abak serving a substantially higher patient

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load compared to other secondary facilities in more rural areas. This finding aligns with established research on healthcare access, which frequently demonstrates that urban centers, due to higher population density and better infrastructure, tend to function as primary hubs for healthcare services (Coombs, Campbell and Caringi 2022). This concentration of demand in urban areas often leads to an uneven distribution of patient burden, with major hospitals in key towns experiencing high volumes while facilities in remote LGAs are underutilized.

Furthermore, the study's analysis of stock of primary healthcare facilities reveals a significant gap. The lack of verified operational data is a common challenge in healthcare research in developing regions, where informal or under-documented facilities exist alongside formal ones. The high percentage of questionable facilities is a major concern that has significant implications for public health. These findings aligned with Obuaku (2025) who asserted that poor infrastructure and limited access to care contribute to health inequalities and increased disease burden in developing countries.

The data from Akwa Ibom State aligns with this, suggesting that the population's access to care is not only hindered by a lack of facilities but also by the inoperability of existing ones. The low number of secondary facilities further exacerbates this problem, as complex health conditions requiring specialized treatment cannot be adequately managed. This necessitates patients to travel long distances, incurring extra costs and risks, which Akwaowo et al. (2022) noted are major socio-economic barriers to healthcare. Therefore, the findings highlight a systemic problem in healthcare provision, where the sheer number of facilities does not translate to effective service delivery, underscoring the need for strategic interventions that focus on both building new facilities and, more importantly, rehabilitating and equipping existing ones.

Findings on facilities accessibility revealed significant physical and financial barriers. Majority of the people live in areas where road networks were not easily accessible. Most of the people paid over 200 naira for transport. This finding is consistent with research by Oyekale (2022), who noted that rural-urban disparities in Nigeria often stem from poor road infrastructure.

The findings clearly show that residents faced compounded obstacles in accessing healthcare. The combination of poor road infrastructure, high transportation costs, and considerable distance created a "triple threat" to service accessibility, as demonstrated by Essien, James and Wilson (2026). These barriers likely caused significant delays in people seeking medical attention, which could lead to worsened health outcomes and increased morbidity within the community. The study's data underscores that accessibility, encompassing both physical and financial dimensions, was a major challenge that requires targeted interventions. Addressing these issues is

critical for improving public health outcomes and ensuring that residents can receive timely and effective medical care, a core component of universal health coverage as highlighted by Essien, James and Effiong (2019).

## 7. **CONCLUSION**

The location and distribution of healthcare faculties is critical to improving access to healthcare delivery in the rural setting. The study examined the distribution of different types of healthcare facilities and the status of its accessibility to the rural people in Northwest region of Akwa Ibom State. Although the region boasts of array of healthcare facilities spanning the primary, secondary and private Health facilities; distribution was largely skewed, uneven and polarized creating significant difficulties in accessibility.

Longer travel time, distance and high cost of transport posed serious impediment to accessing healthcare in the area. The situation calls to question the political will of government and other stakeholders in coming to grips with the problem of rural healthcare quagmire occasioned by lack of equality and unfairness in healthcare facilities distribution. Adopting the needs/population threshold model of healthcare delivery remains the antidote to poor healthcare accessibility in a rural setting.

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