FACTORS AFFECTING HEALTHCARE ACCESSIBILITY IN NIGERIA COMMUNITIES: A CASE STUDY OF ARUOGBA AND EVBUOTUBU COMMUNITIES IN BENIN CITY, EDO STATE

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BEING A PROJECT PRESENTED TO THE INSTITUTE OF PUBLIC ADMINISTRATION AND HEALTH SERVICE MANAGEMENT, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE NIGERIA. IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS OF SCIENCE (Msc.) DEGREE IN DEVELOPMENT ADMINISTRATION.

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CERTIFICATION

We the undersigned certify that this project titled **"Factors Affecting Healthcare Accessibility in Nigeria Communities: A Case Study of Aruogba and Evbuotubu Communities in Benin City, Edo State"** was carried out by **Yahaya Rekiya** with Matriculation Number **IPAHSM/79540** and has satisfied the requirements for the Award of Masters in Development Administration, University of Benin, Benin City.

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External Examiner	**Date**

DEDICATION

This project is dedicated to all those who supported me in the course of this study.

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ABSTRACT

Healthcare accessibility is pertinent to community development. The ease of accessibility of healthcare to the community has a positive impact on the members of the community and by extension serves as a factor for community development. This study was conducted to determine the factors affecting healthcare accessibility in relation to community development in the Arougba and Evbuotubu communities of Benin City, Edo State. The specific objectives were to examine the physical, financial, and administrative accessibility of healthcare facilities, as well as to investigate the awareness of healthcare utilization among residents. The study adopted a descriptive and correlational survey research design. The population of the study was 18,223 residents of Arougba and Evbuotubu communities of Benin City. The sample size was determined by the Yamane (1967) formular as 391.Structured questionnaire was the research instrument. Pearson's correlation was used to test the hypothetical relationships between the dimensions of accessibility and community development. The findings indicated that physical accessibility ($r = -0.341$, $p < 0.01$) and financial accessibility ($r = -0.518$, $p < 0.01$) have significant negative relationships with community development, driven by deplorable road conditions and high out-of-pocket costs that strain household budgets. On the other hand, administrative accessibility ($r = 0.528$, $p < 0.01$) and awareness of utilisation ($r = 0.691$, $p < 0.01$) were found to have significant positive impacts on development. The study concludes that while the community is well-informed and administratively supported, structural and economic barriers remain the primary inhibitors of progress. Consequently, the study recommends that the government prioritise road rehabilitation and implement inclusive health insurance schemes to reduce financial burdens and enhance the overall utilization of healthcare facilities for sustainable community development.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Community development remains a critical global mandate. The United Nations Sustainable Development Goal 3 (SDG 3) highlights the imperative of ensuring "Good health and well-being" with specific targets to eliminate preventable neonatal and child mortality, reduce maternal deaths, and achieve universal health coverage. In alignment with these objectives, the World Bank has pledged to extend affordable healthcare services to 1.5 billion individuals by 2030, with a particular emphasis on reaching remote and underserved population through strategic partnership and innovative financing mechanisms.

Nevertheless, the increasing volatility of donor funding has necessitated a paradigm shift toward country- led, cost- efficient health strategies. These approaches prioritize equitable access, strengthen primary healthcare systems, and advance community- based interventions as foundational components of sustainable health development.

Community development refers to a process through which local populations enhance their collective well-being and economic resilience (Dushkova & Ivlieva, 2024). Indicators such as improved health and economic productivity often reflect the strength of a community's development capacity. Community development depends largely on access to basic healthcare. This is because when the population is healthy, productivity rises, poverty declines, and the social fabric becomes more cohesive. Thus, access to basic healthcare forms the foundation upon which community development rests.

Basic healthcare accessibility encompasses multiple dimensions this include; physical proximity to healthcare facilities, availability of personnel and services,

affordability of care, quality and adequacy of infrastructure, and awareness and utilisation of health services. These elements collectively determine whether individuals can obtain needed care promptly and affordably. When facilities are located nearby, equipped with qualified personnel, and provide affordable, reliable services, residents experience improved health outcomes, reduced disease burden, and greater confidence in the health system (Osarenmwinda & Egonmwan, 2023; McPake, Dayal, Zimmermann, & Williams, 2024). Likewise, awareness of health services and active utilisation of available resources foster preventive behaviors, lowering morbidity rates and sustaining community vitality.

Across Africa, the challenges of healthcare accessibility remain formidable. In Nigeria, only about 20 percent of the approximately 30,000 primary healthcare (PHC) facilities are fully functional (SRHIN, 2025). More than 60 percent of rural Nigerians still lack access to functional PHCs, resulting in high neonatal, infant, and under-five mortality rates in states such as Kano (neonatal: 59 per 1,000), Kebbi (infant: 90 per 1,000), and Jigawa (under-5: 161 per 1,000) (Agenmonmen, 2025; Udenigwe, Okonofua, Ntoimo & Yaya, 2022). Public health funding remains weak, averaging between 4 to 6 percent of the national budget, which is far below the 15 percent Abuja Declaration benchmark. The shortfall, coupled with health workforce shortages, migration of skilled professionals, and high out-of-pocket healthcare costs, continues to limit access and service efficiency (Agbontale, Oreoluwa, et al).

In Nigeria, weak healthcare accessibility has direct implications for community development. With only about two doctors per 10,000 people (far below the global average of 26 per 10,000), a nurse-to-population ratio of 1.6 per 1,000, high maternal mortality (512 per 100,000), and under-five mortality (97.6 per 1,000), the country's health indices remain

distressing (Onyemachi, 2025). Inadequate infrastructure, high treatment costs, and limited awareness compound the problem, especially in peri-urban areas where residents rely heavily on underfunded primary healthcare centers (Orodata, 2025). These deficits not only weaken health outcomes but also suppress economic productivity, as ill health reduces labor availability, drains household income, and undermines local livelihoods.

Therefore, improving access to basic healthcare is central to fostering community development. When healthcare is physically reachable, affordable, adequately staffed, and well-utilised, residents enjoy better health and higher productivity, translating into stronger, more sustainable communities.

This study therefore seeks to examine how basic healthcare accessibility affects community development in Aruogba and Evbuotubu communities of Benin City, Edo State. The findings aim to illuminate pathways for strengthening primary healthcare delivery as a driver of grassroots development and social resilience.

1.2 Statement of Research Problem

In many communities across Edo State, particularly within peri-urban and rural settings, primary healthcare facilities are in a state of disrepair characterised by insufficient qualified staff, shortage of essential medications, decaying infrastructure, and minimal security (Orodata, 2025). Rural respondents were significantly less likely to have consulted a medical doctor in the past year compared to their urban counterparts, highlighting the enduring disparities in healthcare access (Osarenmwinda & Egonmwan, 2023). Despite attempts to digitalise and decentralise health services such as the deployment of mobile clinics and the adoption of e-health records these innovations have yet to significantly

penetrate or transform service delivery in the most vulnerable communities (Edo State Primary Health Care Development Agency (ESPHCDA), 2025; Osarumwense, 2024).

The crux of the challenge lies not merely in the existence of healthcare facilities, but in their accessibility. Physical proximity to healthcare centres, availability of personnel and essential services, affordability of healthcare, quality and adequacy of health infrastructure, and awareness and utilisation of healthcare services jointly determine the extent to which residents can obtain access to effective care. When any of these dimensions are weak, community well-being can deteriorates and development stalls.

Health inaccessibility has ripple effects that extend beyond hospitals into the broader fabric of community life. Poor proximity to care and unaffordable health services often lead to delayed treatment, worsening disease outcomes, and lower health status among residents. Similarly, the shortage of qualified personnel and substandard infrastructure erode trust in local health systems, compelling people to seek care elsewhere or abandon treatment altogether. The resulting health burden reduces economic productivity as workers fall ill more often, households deplete savings on medical expenses, and livelihoods become unstable. Consequently, weakened health accessibility directly constrains the community's economic and social vitality.

Persistent underdevelopment in indicators such as household economic productivity and residents' overall well-beingcan therefore be traced in part to the inadequacy of accessible healthcare. Studies show that recurrent illness reduces work attendance and income-generating potential (Nwoke, Oyiga, & Cochrane, 2024), while lack of access to functional healthcare encourages migration of skilled residents from rural to urban areas (McPake et al., 2024). Furthermore, compromised health infrastructure and poor awareness

of preventive care perpetuate illness cycles that weaken household resilience and erode local economic capacity.

This paucity of integrated research is particularly evident in Aruogba and Evbuotubu communities of Benin City, semi-urban areas that share similar socio-economic profiles, limited industrial activity, and dependence on informal employment. Both communities rely heavily on primary healthcare centres as their first point of medical contact, yet anecdotal evidence indicates chronic challenges such as insufficient personnel, irregular drug supply, inadequate infrastructure, and weak health awareness programmes. Understanding how these elements of healthcare accessibility affect residents' health outcomes and economic stability is crucial.

This study, therefore, seeks to fill this gap by examining how the key dimensions of basic healthcare accessibility affect community development in Aruogba and Evbuotubu communities of Benin City.

1.4 Research Questions

Arising from above, the following questions are asked:

a. What extent has the healthcare facilities physically accessible to the Aruogba and Evbuotubu communities?
b. What nature of financial accessibility that is available in the healthcare facilities at Aruogba and Evbuotubu communities;
c. How has the management operations of the Healthcare facilities made the facility available to the Aruogba and Evbuotubu communities.
d. What is the level of awareness of utilisation of healthcare services in Aruogba and Evbuotubu communities

1.4 Objectives of the Study

The broad objective of this study is to determine the accessibility of basic healthcare on community development in Aruogba and Evbuotubu communities, Benin City, Edo State. The specific objectives are to:

a. Examine the physical accessibility of healthcare facilities in relation to community development in Aruogba and Evbuotubu;
b. Assess the financial accessibility to healthcare facilities at Aruogba and Evbuotubu communities;
c. Examine the administrative accessibility to the Aruogba and Evbuotubu communities;
d. Investigate the awareness of utilisation of healthcare services in Aruogba and Evbuotubu communities; and make the necessary recommendations that will enhance adequate utilisation of healthcare facilities at Aruogba and Evbuotubu communities.

1.5 Hypotheses of the Study

The study is guided by the following hypotheses stated in the null form (H_0):

a. Physical accessibility to healthcare facilities has no significant influence on community development in Aruogba and Evbuotubu communities.
b. Financial accessibility to healthcare facilities has no significant influence on community development in Aruogba and Evbuotubu communities.
c. Administrative accessibility has no significant effect on community development in Aruogba and Evbuotubu communities.

d. Awareness of utilisation of healthcare services has no significant impact on community development in Aruogba and Evbuotubu communities.

1.6 Scope of the Study

The study is delimited to examining the relationship between basic healthcare and community development in Aruogba and Evbuotubu communities, Benin City, Edo State. Basic healthcare accessibility is measured through three proxies, namely physical, financial accessibility; administrative accessibility; and awareness of utilisation of healthcare services. Community development is assessed using two proxies, namely health status and well-being of residents; and economic productivity and livelihood stability.

Geographically, the study focuses exclusively on Aruogba and Evbuotubu communities in Benin City, Edo State, Nigeria. The population of interest comprises primary healthcare centers operating in the community and residents who access or have the potential to access these services. This geographical scope is chosen because Aruogba and Evbuotubu communities reflects many of the infrastructural, social, and health challenges faced by semi-urban and peri-urban areas in Edo State, making it a representative case for understanding the link between healthcare and community development.

1.7 Significance of the Study

This study will be beneficial to a varied number of stakeholders concerned with healthcare delivery and community development in Nigeria, particularly in Edo State:

Policy Makers: Findings will provide evidence-based insights on how basic healthcare influences community development, guiding the formulation of targeted policies and strategic resource allocation for rural and semi-urban areas.

Edo State Primary Health Care Development Agency: The results will highlight gaps in primary healthcare provision in Arougba Community, helping the agency to design tailored interventions for improved service delivery.

Local Government Authorities: Outcomes will enable local authorities to prioritise health infrastructure and workforce deployment, which are critical for fostering educational progress, retaining residents, and boosting local economies.

Healthcare Providers: This includes community health worker, nurses, midwives, and doctors which would gain insight into how their availability and service delivery directly affect community development, encouraging improved performance and patient engagement.

Non-Governmental Organisations (NGOs) and Development Partners: The study is important for NGOs and international agencies as it would serve as a valuable resource in identifying intervention areas and designing programs to strengthen primary healthcare in underserved communities.

Community Residents: By revealing the link between healthcare access and community well-being, residents will be more empowered to advocate for better health services and participate in community health initiatives.

Researchers and Academics: The study will fill a knowledge gap on the relationship between basic healthcare, and community development in Edo State, providing a framework, and empirical data for future studies in similar contexts.

1.8 Definition of Terms

Basic Healthcare: The fundamental health services that ensure the prevention, diagnosis, treatment, and management of common illnesses, as well as maternal, and child health needs, delivered primarily at the community or primary healthcare level.

Basic Healthcare Accessibility: This refers to the degree to which individuals, and households can obtain, and effectively use essential healthcare services when needed, devoid of physical, financial, or informational barriers. It encompasses the ease of reaching health facilities, the availability of qualified personnel, affordability of services, adequacy of infrastructure, and awareness of available care options.

Physical Proximity to Healthcare Facilities: This describes the geographical closeness of health facilities to residents, often measured by distance in kilometers or average travel time. It reflects how easily community members can reach medical services, particularly in emergencies or for routine care.

Availability of Health Personnel and Services: This denotes the presence and adequacy of various trained healthcare professionals from the primary to tertiary level healthcare facility, and the consistent provision of essential health services like immunisation, maternal care, and disease prevention programs.

Affordability of Healthcare Services: Affordability denotes the extent to which healthcare costs consultation fees, medication prices, and transportation expenses are within the financial reach of community members without causing economic hardship or forcing them to forgo care.

Awareness of Utilisation of Healthcare Services: This describes the level of knowledge community members possess about available healthcare services and their actual use of such

services for preventive, curative, or maternal-child health needs. It reflects both informational access and behavioral engagement.

Community Development: This signifies the process through which local populations enhance their social, economic, and health conditions through collective action, improved access to resources, and sustainable livelihood opportunities. It emphasizes self-reliance, participation, and well-being at the grassroots level.

Health Status and Well-being of Residents: This refers to the general physical, mental, and social condition of individuals within a community, often measured through indicators such as morbidity and mortality rates, frequency of illness, and self-reported quality of life.

Economic Productivity and Livelihood Stability: Economic productivity and livelihood stability describe the capacity of residents to engage in consistent, income-generating activities that sustain their households. It reflects how good health enhances work performance, household income, and resilience against economic shocks.

CHAPTER TWO

LITERATURE REVIEWAND THEORETICAL FRAMEWORK

2.0 Introduction

Community development is widely understood as a participatory and holistic process that empowers communities to shape their own futures. Scholars emphasized that sustainable progress depends on interconnected dimensions such as population health, economic vitality, and residents' commitment to remain invested in their communities. Within this framework, healthcare accessibility emerges as a critical determinant, influencing not only individual well-being but also broader social and economic stability. This literature therefore highlights the need for integrated strategies that address physical, financial, administrative, and informational barriers to healthcare, positioning access to health services as central to inclusive and sustainable community development.

2.1 Community Development

Community development has been understood in different ways by scholars and those working in the field. Christenson and Robinson (2019) describe it as a process where community members' work together to take joint action and find solutions to shared issues. They stress the significance of local involvement and empowerment in tackling social, economic, and environmental problems. This perspective focuses on the collaborative aspect of development efforts and the essential role of community initiative in achieving sustainable change.

The authors argue that effective community development requires not only external support but also the mobilisation of internal resources and the building of social capital within communities.

Phillips and Pittman (2020) conceptualise community development as a planned evolution and change of the community in multiple dimensions including physical, social, economic, cultural, and environmental aspects, achieved through the collaborative efforts of government agencies, civil society organisations, and community members themselves. This perspective emphasises the holistic nature of development, recognising that improvements in one dimension often have ripple effects across other aspects of community life. The authors note that successful community development initiatives must address the interconnected nature of community challenges and opportunities, rather than focusing narrowly on single issues in isolation.

Kenny (2021) describes community development as a planned effort aimed at helping communities gain more control over the circumstances that influence their daily lives, such as access to essential services like healthcare, education, and infrastructure. This definition underscores the power dynamics inherent in development processes and the importance of shifting decision-making authority to community members themselves. Kenny (2021) argues that genuine development occurs when communities are not merely recipients of external aid but become active agents in identifying priorities, designing interventions, and evaluating outcomes.

Central to the above perspectives of community development are several key features that characterise effective community development. First, the participatory approach emerges as fundamental, with all three authors emphasising the necessity of involving community members in decision-making processes and development activities. Second, the holistic nature of development is evident, recognising that improvements in healthcare accessibility, for instance, cannot be divorced from broader social, economic, and

infrastructural considerations. Third, empowerment and capacity building appear as crucial elements that ensure that communities develop the skills, knowledge, and organisational structures needed to sustain development gains over time.

2.2 Dimensions s of Community Development

Community development encompasses multiple interconnected elements that together support well-being and long term sustainability of communities. While various scholars have identified different dimensions of community development, there is general consensus that successful community development requires progress across several key domains including the health status of the population, economic vitality and productivity, and the willingness of residents to remain and invest in their communities (Phillips & Pittman, 2020; Bhattacharyya, 2021; Robinson & Green, 2022). These elements are mutually reinforcing, with improvements in one area often catalyzing positive changes in others. Understanding these elements and their interrelationships is essential for developing comprehensive community development strategies that address the multifaceted nature of community well-being and create conditions for sustainable progress.

Healthy Population

A healthy population represents a fundamental element of community development, as the health status of individuals in the community directly influences their capacity to participate in economic, social, and civic activities that drive development (Marmot & Bell, 2019; Solar & Irwin, 2023). As noted by Marmot and Bell (2019), population health encompasses not only the absence of disease but also physical, mental, and social well-being across all age groups within a community, with particular attention to reducing health inequalities that leave vulnerable populations behind. They argue that communities with

healthier populations demonstrate higher levels of productivity, stronger social cohesion, lower healthcare costs, and greater resilience in the face of challenges. This perspective recognises that health is both an outcome of successful community development and a prerequisite for further development, creating a virtuous cycle when health improves and a vicious cycle when health deteriorates.

Solar and Irwin (2023) conceptualise healthy populations through the social determinants of health framework. There is emphasis that population health status reflects the living and working conditions, educational opportunities, environmental quality and social support systems available within communities. They show that communities with poor housing, limited access to healthy food, environmental dangers, insufficient healthcare facilities, and social fragmentation inevitably experience worse health outcomes that constrain development potential.

Conversely, communities that invest in health-promoting infrastructure including accessible healthcare services, safe recreational spaces, clean water and sanitation, quality education, and social support networks create conditions that enable residents to achieve optimal health and contribute fully to community life (Berkman et al., 2020). This understanding positions population health not as an isolated health sector concern but as a cross-cutting development priority requiring coordinated action across multiple sectors including healthcare, education, housing, environment, and social services.

Economic Productivity

Economic productivity constitutes a critical element of community development, referring to the capacity of communities to generate sufficient income, employment opportunities, and wealth to support residents' livelihoods and fund investments in infrastructure, services, and future development (Emery & Flora, 2021; Green & Haines,

2021). As noted by Emery and Flora (2021), economic productivity in the community development context encompasses not only aggregate measures such as total economic output or average income levels but also the distribution of economic opportunities, the diversity and resilience of the economic base, the quality of employment available, and the extent to which economic activity is locally owned and controlled rather than extractive. They argue that sustainable community development requires economic systems that provide dignified work and adequate compensation for all residents rather than creating wealth for a few while leaving many in poverty or precarious employment.

Green and Haines (2021) emphasise that economic productivity in community development must be understood through an asset-based lens that recognises diverse forms of economic activity and capital beyond formal wage employment. They identify multiple dimensions of community economic productivity including entrepreneurship and small business development, community-based enterprises and cooperatives, informal economic activities that provide livelihoods particularly for marginalized groups, and the productive value of unpaid labor such as care giving and community volunteering.

This broader conceptualisation recognizes that economic vitality in communities, particularly in developing contexts, depends not solely on attracting external investment or large employers but on nurturing local economic capacity, supporting diverse livelihood strategies, and ensuring that economic benefits circulate within communities rather than leaking out to external actors (Christenson & Robinson, 2019). Furthermore, sustainable economic productivity requires balancing immediate economic gains with long-term environmental sustainability and social equity, avoiding development pathways that generate short-term wealth while depleting natural resources, degrading environmental

quality, or exacerbating social inequalities that ultimately undermine community well-being (Barbier & Burgess, 2020).

Willingness to Remain in the Community

The willingness of residents to remain in and commit to their communities represents a crucial but often overlooked element of community development, reflecting residents' satisfaction with community conditions, their sense of belonging and attachment, and their confidence in the community's future prospects (Brown et al., 2022; Theodori, 2021). As noted by Brown et al. (2022), residential stability and commitment what they term "community viability" serves as both an indicator of successful development and a prerequisite for sustained development efforts, as communities experiencing chronic out-migration face depleted human capital, declining social networks, reduced tax bases to fund services, and loss of the civic engagement necessary to address community challenges.

They argue that willingness to remain should not be understood as simple physical presence but as active investment in community life through property maintenance, participation in local organizations6, support for community institutions, and engagement in collective problem-solving. Theodori (2021) conceptualizes willingness to remain through the framework of "place attachment" and "community satisfaction," identifying multiple dimensions that influence residents' commitment to their communities. These dimensions include satisfaction with economic opportunities and living conditions, quality of social relationships and sense of belonging, availability and quality of services including healthcare and education, environmental quality and aesthetic features, safety and security, opportunities for civic participation and influence over community decisions, and cultural alignment between personal values and community norms (Stedman, 2020; Pretty et al., 2023). They demonstrate that willingness to remain is particularly threatened when

communities experience prolonged economic decline, deteriorating services and infrastructure, environmental degradation, rising crime or social disorder, or governance failures that leave residents feeling powerless to influence community direction. Conversely, communities that provide economic opportunity, maintain quality services and attractive environments, foster inclusive social relationships, and create meaningful opportunities for resident participation in decision-making cultivate strong place attachment and commitment (Manzo & Perkins, 2021).

This element is especially important in healthcare accessibility, as inadequate healthcare services requiring residents to travel long distances for care or face unaffordable costs can significantly diminish community satisfaction and contribute to decisions to relocate, particularly among families with children, elderly residents with chronic conditions, and educated professionals seeking comprehensive services for their families.

2.3 Accessibility in Healthcare

Accessibility in healthcare refers to how easily people can get and use health services when they need them, without facing big delays, high costs, or other problems (Adewole et al., 2022; Alawode & Adewole, 2021; Uguru, 2024). As stated by Adewole et al. (2022), healthcare accessibility involves how well individuals and groups can access, afford, and properly use health services based on their needs. This includes both the availability and spread of services on the supply side, as well as people's behavior in seeking care and the cultural fit of the services on the demand side. This comprehensive definition recognises that accessibility extends beyond merely having health facilities nearby to encompass the complex interplay of factors that enable or constrain actual utilisation of services.

Alawode and Adewole (2021) conceptualise accessibility as a multidimensional construct that reflects the fit between healthcare service characteristics and the needs, preferences, and capacities of the population served. The authors identify several key dimensions including geographical accessibility (proximity and transportation), financial accessibility (affordability and insurance coverage), organisational accessibility (appointment systems and opening hours), and informational accessibility (awareness and health literacy). This framework emphasises that removing barriers in one dimension may be insufficient if obstacles persist in other areas, necessitating a comprehensive approach to improving healthcare access.

Uguru (2024) defines healthcare accessibility as the timely use of health services to obtain the best possible health outcomes, emphasising that true accessibility requires not just the presence of services but their appropriateness, acceptability, and quality. The author argues that accessibility must be understood from the patient's perspective, taking into account their lived experiences of attempting to navigate the healthcare system. This patient-centered view highlights that even when services are theoretically available, various barriers ranging from discrimination and cultural insensitivity to complex bureaucratic procedures can render them effectively inaccessible to certain population groups.

Central to these conceptualisations are several critical features that define meaningful healthcare accessibility. First, the multidimensional nature of access is emphasised, recognising that physical proximity alone does not guarantee utilisation if financial, cultural, or informational barriers persist (Penchansky & Thomas, 2020).

Second, the patient-centered perspective appears crucial, with accessibility defined not merely by service provision but by actual ability to obtain needed care when required.

Third, the equity dimension emerges as fundamental, with accessible healthcare systems being those that enable all population groups regardless of income, location, or social status to obtain appropriate care (Peters et al., 2021). Finally, the outcome orientation is highlighted, with true accessibility measured not just by service contact but by achievement of health improvements and satisfaction with care received.

Elements of Accessibility in Healthcare

Healthcare accessibility comprises multiple interconnected elements that collectively determine whether individuals can obtain needed health services. While scholars have proposed various frameworks, there is general consensus that accessibility encompasses physical or geographical factors, financial considerations, administrative or organisational aspects, and awareness, informational or cognitive dimensions (Gulliford et al., 2022; Levesque et al., 2023).

Each of these elements presents distinct barriers and facilitators that shape healthcare utilisation patterns, and understanding them individually as well as their interactions is essential for developing comprehensive strategies to improve access. The following subsections examine each element in detail, exploring how they influence healthcare accessibility in community settings.

Physical Accessibility

Physical accessibility, also referred to as geographical accessibility, pertains to how easily individuals can reach health services based on factors like location, distance, terrain, and the transportation infrastructure that connects their home or workplace to the health facility (Adewole et al., 2022; Frontiers study, 2024; Obinne-Echem et al., 2025). Adewole et al., (2022), denotes physical accessibility represents the spatial relationship between

service delivery points and service users, incorporating not only straight-line distance but also travel time, transportation availability, road conditions, and geographical barriers such as rivers or difficult terrain that may impede access. They emphasisethat what constitutes acceptable distance or travel time varies considerably depending on the type of health service required, with emergency care requiring much closer proximity than routine preventive services.

The Frontiers study (2024) conceptualises physical accessibility through the lens of the "three delays" model. This model identifies delays in decision to seek care, reaching a health facility, and accessing appropriate care upon arrival. Physical accessibility primarily affects the second delay, with geographical barriers often proving decisive in whether individuals can reach facilities in time, particularly for emergency obstetric care or acute medical conditions. The study demonstrates that even relatively short distances can become insurmountable barriers when combined with poor road infrastructure, lack of transportation options, or challenging weather conditions, highlighting the need to consider the full journey from home to health facility rather than distance alone.

Obinne-Echem et al. (2025) define physical accessibility in terms of the availability and distribution of health facilities relative to population settlements, arguing that equitable physical access requires health services to be situated within reasonable reach of all community members.

They introduce the concept of "effective coverage," which recognises that physical proximity to a facility does not automatically translate to accessibility if that facility lacks adequate staffing, equipment, or supplies. This perspective emphasises that physical

accessibility assessments must consider the presence of health infrastructuAdeas well as its functionality, and capacity to provide quality services.

Central to these perspectives on physical accessibility are several key features. First, the distance-decay relationship is fundamental, with healthcare utilisation typically declining as distance from facilities increases, particularly for non-emergency services (Marmot et al., 2020). Second, the transportation dimension emerges as critical, with availability, affordability, and reliability of transport options often proving more decisive than absolute distance. Third, the infrastructure quality factor is highlighted, recognising that road conditions and connectivity significantly influence effective accessibility regardless of linear distance. Fourth, the service-specific nature of physical accessibility is emphasised, with different types of health services requiring different levels of proximity to ensure adequate utilisation and health outcomes.

Financial Accessibility

Financial accessibility to healthcare pertains to how well individuals can afford to pay for medical services, including insurance premiums, co-payments, travel expenses, and other related fees, without facing financial strain (McIntyre & Meheus, 2023; Smith et al., 2024). According to McIntyre and Meheus (2023), financial accessibility represents the relationship between cost of health services, and people's ability, and disposition to pay for those services without experiencing catastrophic health expenditure that drives households below the poverty line or prevents them from meeting other basic needs. The authors argue that even with national insurance coverage such as the National Health Insurance Scheme (NHIS), financial obstacles can still exist due to incomplete coverage, unforeseen expenses, or limited knowledge of benefit eligibility.

Smith et al. (2024) conceptualise financial accessibility through the framework of "financial protection," emphasising that healthcare systems should shield individuals from the financial consequences of ill health. The authors identify multiple dimensions of financial barriers including direct medical costs (consultations, medications, procedures), indirect costs (transportation, accommodation, opportunity costs of time), and the broader economic impact of illness on household productivity, and income. This comprehensive view recognises that even when formal healthcare costs are subsidised, ancillary expenses can still constitute prohibitive barriers, particularly for low-income households.

Wagstaff and Neelsen (2020) define financial accessibility in terms of distribution of healthcare payments relative to household ability to pay, arguing that accessible healthcare systems are those in which financial contributions are linked to capacity rather than need for services. The authors emphasise that regressive financing mechanisms, where poorer households spend a significant proportion of their income on healthcare than the affluent ones, fundamentally undermine accessibility by creating inequitable barriers to care. This perspective highlights the importance of prepayment and risk-pooling mechanisms, such as insurance schemes, in distributing financial burdens more equitably across populations.

Central to these conceptualisations are several critical features of financial accessibility. First, the affordability dimension is paramount, with healthcare costs needing to be within reach of household budgets without requiring sacrifices of other essential expenditures (Xu et al., 2021). Second, the protection against catastrophic expenditure emerges as crucial, recognising that even infrequent high-cost health events can devastate household finances if adequate financial protection mechanisms are absent. Third, the equity principle is fundamental, with financial accessibility requiring that healthcare payments not

be based solely on health status or service need, which would penalise the sick and vulnerable.

Fourth, the transparency and predictability of costs appear important, with hidden fees, informal payments, and unpredictable out-of-pocket expenses undermining people's ability to plan for and afford healthcare. Finally, the comprehensiveness of coverage is highlighted, recognising that even insured populations face financial barriers when insurance benefits are limited or exclude essential services, medications, or provider types.

Administrative Accessibility

Administrative accessibility, also referred to as organisational accessibility, refers to how easily individuals can navigate the healthcare system, specifically regarding administrative procedures, coordination of services, and overall user experience (Alawode & Adewole, 2021; McPake et al., 2020; Ogunbekun, 2021; Rice & Kindig, 2021). Alawode and Adewole (2021) explain that administrative accessibility encompasses the organisational arrangements, regulations, and procedures that patients must navigate to obtain healthcare services, including appointment systems, opening hours, waiting times, referral processes, and the complexity of administrative requirements for accessing care. The authors emphasise that cumbersome bureaucratic procedures can function as significant barriers to care, even when services are geographically proximate and financially affordable.

In the view of McPake et al. (2020), administrative accessibility can be seen in terms of service readiness and responsiveness. They argue that health systems must be organised in ways that accommodate the needs, schedules, and capabilities of diverse patient populations. They further identify key dimensions including the ease of making appointments, flexibility of service hours to accommodate working populations, efficiency

of patient flow through facilities, clarity of signage and wayfinding systems, and the attitude and helpfulness of administrative and clinical staff. This framework recognises that organisational barriers can be as insurmountable as financial or geographical ones, particularly for individuals with limited literacy, language barriers, or competing time demands from employment and caregiving responsibilities.

Ogunbekun (2021) and Rice and Kindig (2021) define administrative accessibility through the concept of system navigation capability, emphasising that healthcare systems vary considerably in the complexity of procedures patients must follow and the support provided to help them successfully access services. They argue that administrative accessibility is fundamentally about reducing transaction costs the time, effort, and uncertainty involved in interfacing with the healthcare system. They highlight that fragmented systems with poor coordination between different levels of care or service types impose particularly heavy administrative burdens on patients, requiring them to repeatedly provide information, secure multiple referrals, and coordinate their own care across disconnected providers.

Central to these perspectives on administrative accessibility are several key features. First, the simplicity and transparency of procedures emerge as crucial, with streamlined processes and clear information about requirements facilitating access while bureaucratic complexity creates barriers (Haggerty et al., 2020). Second, the convenience dimension is highlighted, including factors such as operating hours, appointment availability, and waiting times that must align with patients' lives and schedules. Third, the continuity and coordination of care appear fundamental, with well-integrated systems that share

information and coordinate referrals reducing the burden on patients to navigate independently.

Fourth, the communication quality is emphasised, recognising that clear, respectful, and culturally appropriate communication from healthcare staff significantly influences patients' ability to successfully access and utilise services. Finally, the flexibility and accommodation aspects are noted, with accessible systems being those that can adapt to diverse patient needs rather than requiring all patients to fit a standardised mold.

Awareness and Utilisation of Healthcare Services

Awareness of utilisation, also referred to as information or cognitive accessibility, denotes the degree to individuals' awareness, understanding, empowerment to effectively use the health insurance services available to them (Alawode & Adewole, 2021; Ewulum et al., 2022; Okiche et al., 2021; Uguru et al., 2024). As Alawode and Adewole (2021) explain, awareness encompasses knowledge of what benefits are covered under insurance schemes, how to navigate systems like the NHIS, how to choose or change Health Maintenance Organisations (HMOs), and how to seek redress when problems arise.

They emphasise that information gaps can render even well-designed and generously funded health insurance programs ineffective if beneficiaries lack awareness of their entitlements or understanding of how to exercise their rights. Ewulum et al. (2022) conceptualise awareness and utilisation through the framework of "health literacy," which covers both the skill to read and interpret health information and the ability to move through the healthcare system, interact clearly with healthcare providers, and make well-informed choices about health services. They argue that low health literacy creates a hidden barrier to

access that often goes unrecognised by health system planners who assume that providing services and announcing their availability is sufficient to ensure utilisation.

This perspective highlights that awareness must be understood as an active capability rather than passive exposure to information, requiring individuals to process, understand, and apply health information to their specific circumstances.Okiche et al. (2021) and Uguru et al. (2024) define awareness of utilisation in terms of "informed activation," emphasising that true accessibility requires individuals not only to know about services but to feel confident and empowered to use them.

They identify multiple dimensions including awareness of service existence, understanding of eligibility criteria and enrollment procedures, knowledge of covered benefits and exclusions, familiarity with appropriate pathways for accessing different types of care, and awareness of quality standards and complaint mechanisms. They argue that information asymmetries between providers and patients can be exploited to deny or limit access, making empowered and informed patient populations essential for ensuring accountability and appropriate utilisation.

Central to these conceptualisations are several critical features of awareness and utilisation. First, the information availability dimension is fundamental, with accessible healthcare requiring that clear, accurate, and timely information about services, entitlements, and procedures is disseminated through appropriate channels reaching all population segments (Berkman et al., 2021). Second, the comprehensibility factor emerges as crucial, recognising that information must be presented in ways that are understandable to diverse audiences with varying literacy levels, languages, and cultural backgrounds. Third, the

empowerment aspect is highlighted, with awareness extending beyond passive knowledge to active capability and confidence to claim entitlements and navigate systems.

Fourth, the trust dimension appears important, as individuals must trust information sources and believe that services will actually be available and appropriate when they attempt to access them. Finally, the bidirectional communication element is emphasised, with accessible systems being those that not only push information to communities but also create channels for feedback, questions, and community input into service design and delivery.

2.4 Overview of Nigeria Healthcare System

Structure and Organisation of Nigeria Healthcare System

Nigerian healthcare system operates within a three-tiered structure that reflects the country's federal system of government, with responsibilities distributed amongst federal, state, and local government levels (Adeloye et al., 2017). The primary healthcare level, which constitutes the foundation of the system, is managed by local government authorities and comprises primary health centers, dispensaries, and health posts that provides basic preventive, and curative services to communities (Oleribe et al., 2019). The secondary healthcare level, administered by state governments, includes general hospitals and specialist centers that offer more advanced diagnostic and treatment services, serving as referral points for cases that exceed the capacity of primary facilities (Abimbola et al., 2021). The tertiary healthcare level, under federal government jurisdiction, consists of teaching hospitals, and federal medical centers that provide highly specialized care, conduct medical research, and offer capacity building to healthcare professionals (Uzochukwu et al., 2020).

This hierarchical structure is designed to ensure healthcare services are accessible at the grassroots level while maintaining pathways for referral to higher levels of care for more complex cases. However, the implementation of this model faces significant challenges related to coordination, resource allocation, and functional integration across the three tiers (Aregbeshola & Khan, 2018). The system incorporates both public and private sector providers. The private sector plays an increasingly prominent role particularly in urban areas where public facilities are often overcrowded or under-resourced (Onoka et al., 2021). Akinyemi et al., (2023) noted that the public-private mix in Nigerian healthcare has evolved in response to inadequacies in public sector provision, with many Nigerians relying on private providers for services ranging from primary care in small clinics to advanced procedures in private hospitals. The regulatory framework for the healthcare system is provided by various bodies. This includes the Federal Ministry of Health at the national level, State Ministries of Health, and professional regulatory bodies such as the Medical and Dental Council of Nigeria, the Nursing and Midwifery Council, and Pharmacists Council, which establish standards and ensure professional accountability (Labiran et al., 2021).

Despite this comprehensive structural framework, the Nigerian healthcare system faces persistent challenges in translating organizational design into effective service delivery. This is particular at the primary care level where most citizens should theoretically access their initial healthcare services (Adinma et al., 2022). The fragmentation between different levels of government and between public and private sectors creates coordination difficulties that undermine continuity of care and efficient resource utilization. Furthermore, the constitutional assignment of primary healthcare to local governments the tier of government with the weakest fiscal capacity and technical expertise has contributed to the

chronic underperformance of primary healthcare services, forcing many Nigerians to bypass this level entirely and seek care directly at secondary or tertiary facilities, thereby creating inefficiencies and overburdening higher-level facilities (Eze et al., 2020).

Healthcare Financing and Insurance

Healthcare financing in Nigeria depends on a multifaceted array of funding sources encompassing government budgets at federal, state, and local levels, out-of-pocket financing by individuals and households, health insurance programs, and donor funding from international development partners (Onwujekwe et al., 2019). The World Health Organization (2021), indicates that Nigeria's total health expenditure as a percentage of gross domestic product has consistently fallen below the recommended threshold, with government health spending representing a minor fraction, while out-of-pocket expenditures prevail, compromising approximately 70-75% of total health spending. This significant dependence on direct payments at the point of service establishes considerable financial constraints to healthcare access and subjects households to catastrophic health expenditures that may drive families into poverty (Aregbesola & Vocal, 2023).

The National Health Insurance Scheme (NHIS) was established in 2005 with the objective to ensure that all Nigerians have access to affordable and quality healthcare through various insurance programs including the Formal Sector Social Health Insurance Programme for public and private sector employees, the Informal Sector Social Health Insurance Programme for self-employed individuals and informal workers, and the Vulnerable Group Social Health Insurance Programme targeting the poor and vulnerable populations (Adewole et al., 2021). According to Adisa (2022), despite nearly two decades of operation, the NHIS has achieved limited coverage, with enrollment estimated at only 5-

10% of the population, concentrated primarily among federal civil servants and employees of large organizations in urban areas. The scheme faces multiple implementation challenges including inadequate funding, limited awareness among potential enrollees, resistance from state governments to implement their own contributory health insurance schemes, poor quality of services in accredited facilities, difficulties in enrolling informal sector workers who constitute the majority of the workforce, and administrative inefficiencies in claims processing and provider payments (Onyedibe et al., 2020).

Recent reforms have sought to address these challenges through the National Health Insurance Authority Act of 2022, which replaced the NHIS with the National Health Insurance Authority (NHIA) and introduced mandatory health insurance coverage for all Nigerians, established a Basic Healthcare Provision Fund to subsidize premiums for vulnerable populations, and created a framework for state-level health insurance schemes (Okpani & Abimbola, 2023). The Basic Healthcare Provision Fund, established through the National Health Act of 2014, allocates at least 1% of the Consolidated Revenue Fund to primary healthcare, providing a significant though still inadequate funding stream specifically for strengthening basic health services (Abubakar et al., 2021). According to Mohammed et al. (2023), these reforms represent important policy advances, but their success depends on effective implementation, sustained political commitment, adequate resource mobilization, and addressing the systemic weaknesses in healthcare infrastructure and workforce that constrain service delivery regardless of financing arrangements. The challenge of achieving universal health coverage in Nigeria requires not only expanding insurance enrollment but also ensuring that insured populations can actually access quality

services, which necessitates simultaneous investments in health facilities, equipment, supplies, and human resources (Ogundele et al., 2022).

Healthcare Workforce

The Nigerian healthcare workforce comprises diverse cadres of professionals including medical doctors, pharmacists, nurses, midwives, laboratory scientists, community health workers, and various allied health professionals who collectively provide services across the healthcare system (Shaahu et al., 2020). According to the World Health Organization (2022), Nigeria faces a severe shortage of health workers relative to population needs, with physician and nurse densities far below the WHO-recommended thresholds for achieving universal health coverage and the Sustainable Development Goals. Abdulraheem et al. (2021) report that the health worker-to-population ratio in Nigeria is approximately 0.4 physicians and 1.7 nurses per 1,000 population, compared to the WHO recommendation of at least 4.45 skilled health workers (physicians, nurses, and midwives) per 1,000 population, indicating a substantial deficit in healthcare human resources.

The healthcare workforce shortage is exacerbated by severe geographical imbalances in distribution, with health workers concentrated in urban areas and particularly in southern states, while rural and northern regions experience acute shortages that leave many communities without adequate access to qualified healthcare providers (Irinoye et al., 2022). According to Oleribe et al. (2021), approximately 70% of Nigeria's health workers are located in urban areas despite the fact that a substantial portion of the population resides in rural communities, creating profound inequities in access to care. This maldistribution reflects multiple factors including poor infrastructure and working conditions in rural facilities, limited professional development opportunities in remote areas, security concerns

in conflict-affected regions, and the concentration of training institutions and career advancement opportunities in cities (Okoroafor et al., 2020).

Brain drain represents another critical challenge facing Nigeria's healthcare workforce, with significant numbers of trained healthcare professionals immigrating to developed countries in search of better compensation, working conditions, and career opportunities (Adeloye et al., 2022). According to Okeke (2023), thousands of Nigerian-trained doctors and nurses are currently practicing in the United Kingdom, United States, Canada, and other developed countries, representing a substantial loss of human capital investment and exacerbating domestic workforce shortages. The emigration of health workers reflects systemic problems in the Nigerian health system including inadequate remuneration that fails to provide decent living standards, delayed salary payments and irregular allowances, poor working conditions with inadequate equipment and supplies, heavy workloads due to understaffing, limited opportunities for continuing professional development, and concerns about personal security (Okoye & Okolie, 2023). This exodus creates a vicious cycle where remaining health workers face increased workloads and deteriorating conditions, further motivating emigration and compromising the quality of care available to the population.

Efforts to address workforce challenges include initiatives to increase training capacity through expansion of medical and nursing schools, deployment schemes that incentivize service in underserved areas, improved remuneration packages particularly at state and federal levels, task-shifting strategies that expand the roles of mid-level providers such as community health extension workers, and retention programs that provide housing, transportation, and professional development support (Okonofua et al., 2021). However,

these interventions have achieved limited success due to resource constraints, implementation challenges, and the persistence of structural factors driving workforce shortages and misdistribution (Kress et al., 2020).

Healthcare Infrastructure and Service Delivery

Healthcare infrastructure in Nigeria encompasses the physical facilities, equipment, supplies, and support systems required for effective service delivery across the three-tiered system (Adinma et al., 2022). According to Ogundele et al. (2020), Nigeria has an extensive network of health facilities including over 30,000 primary healthcare centers, hundreds of secondary-level general hospitals, and numerous tertiary hospitals and specialist centers. However, this apparent abundance of facilities masks severe deficiencies in functionality, with many facilities lacking essential equipment, experiencing frequent shortages of medicines and supplies, suffering from inadequate infrastructure including unreliable electricity and water supply, and operating below their intended capacity (Ezenwaka et al., 2020).

The condition of primary healthcare facilities is particularly concerning, as these facilities constitute the initial point of contact with the health system for most Nigerians but often lack the basic requirements for quality service delivery (Okeke & Okeibunor, 2023). According to a comprehensive facility assessment conducted by Akinyemi et al. (2021), many primary health centers lack functional examination equipment, essential medicines, reliable cold chain for vaccine storage, adequate water and sanitation facilities, and consistent electricity supply, forcing them to operate as glorified drug distribution points rather than comprehensive primary care facilities. The infrastructure deficits extend beyond physical structures to encompass critical support systems including health information

systems, supply chain management, referral networks, and quality assurance mechanisms that are essential for effective healthcare delivery (Olorunsaiye & Degge, 2023).

Service delivery challenges in Nigerian healthcare system include long waiting period at facilities as a result of inadequate staffing and inefficient patient flow management, frequent stock outs of essential medicines forcing patients to purchase drugs from private pharmacies at higher costs, poor infection prevention and control practices that expose patients to healthcare-associated infections, limited availability of diagnostic services particularly in rural areas, inefficient referral systems that lack coordination between different levels of healthcare, and inadequate emergency care systems including ambulance services (Ogaji et al., 2021). According to Bamidele et al. (2022), these service delivery problems reflect the cumulative impact of inadequate financing, workforce shortages, infrastructure deficits, and weak health system governance that fails to ensure accountability and responsiveness to population needs.

Quality of care remains a persistent concern across the Nigerian healthcare system, with substantial variations in clinical competence, adherence to treatment protocols, patient safety practices, and respect for patients' rights and dignity (Nnebue et al., 2020). Kanmodi et al. (2023) report that patient dissatisfaction with healthcare services is widespread, driven by perceptions of poor provider attitudes, long waiting times, inadequate explanations and communication, lack of privacy and confidentiality, and concerns about clinical competence. These quality deficits undermine public confidence in the health system and contribute to healthcare-seeking behaviors that include self-medication, reliance on unqualified providers, delays in seeking care until conditions become severe, and medical tourism to other countries for procedures that should be available locally (Esan et al., 2021).

Disease Burden and Health Outcomes

Nigeria faces a high disease burden marked by the persistence of communicable diseases alongside a rising burden of non-communicable diseases. This dual burden places added pressure on an already overstretched healthcare system (Adeloye & Basquill, 2021). According to the Global Burden of Disease Study (2020), the leading causes of death and disability in Nigeria include lower respiratory infections, malaria, HIV/AIDS, tuberculosis, maternal and neonatal conditions, cardiovascular diseases, cancer, diabetes, and injuries from road traffic accidents and violence. The continued prominence of preventable infectious diseases and maternal-child health conditions reflects inadequate coverage of essential health interventions, poor environmental health conditions, and restricted access to quality healthcare services (Balogun et al., 2023).

Maternal and child health indicators in Nigeria remain among the worst globally, with maternal mortality estimated at approximately 512 deaths per 100,000 live births, under-five mortality at 117 deaths per 1,000 live births, and neonatal mortality at 37 deaths per 1,000 live births (National Population Commission & ICF, 2019). According to Adewemimo et al. (2021), these adverse outcomes reflect multiple factors including low utilization of skilled birth attendance with only about 43% of births attended by skilled health personnel, inadequate emergency obstetric care facilities particularly in rural areas, poor nutritional status of women and children, and limited access to family planning services. Child mortality is driven substantially by preventable conditions including pneumonia, diarrheal diseases, malaria, malnutrition, and vaccine-preventable diseases, indicating gaps in basic healthcare coverage and environmental health interventions (Ajayi et al., 2022).

The burden of infectious diseases remains substantial despite progress in some areas. Malaria continues to account for significant morbidity and mortality, particularly among children under the age of five and pregnant women, with Nigeria bearing the world's highest malaria burden (World Health Organization, 2020). HIV prevalence has declined from peak levels but remains at approximately 1.3% nationally with substantial regional variations and concentrated epidemics in certain populations (UNAIDS, 2022). Tuberculosis incidence is high, with Nigeria ranking among the top countries globally for TB burden, and the emergence of drug-resistant strains poses additional challenges (Ogbudebe et al., 2023). Other infectious disease challenges include neglected tropical diseases, vaccine-preventable diseases outbreaks as a result of suboptimal immunization coverage, and emerging infectious disease threats as demonstrated by the COVID-19 pandemic (Ihekweazu & Agogo, 2020).

Non-communicable diseases are increasingly contributing to Nigeria's disease burden as epidemiological transition occurs alongside persistent communicable disease challenges (Adeloye et al., 2020). Cardiovascular diseases including hypertension, stroke, and heart failure are becoming more prevalent, driven by increasing urbanization, changing dietary patterns, sedentary lifestyles, and aging of the population (Ojji et al., 2021). Diabetes prevalence is rising, with estimates suggesting that millions of Nigerians have diabetes, many undiagnosed and uncontrolled due to limited access to screening, treatment, and monitoring services (Uloko et al., 2020). Cancer incidence is increasing, but diagnostic and treatment services remain inadequate, leading to late presentation, poor outcomes, and high mortality rates (Jedy-Agba et al., 2022). Mental health disorders constitute a substantial but often neglected component of the disease burden, with limited specialized mental health

services and pervasive stigma preventing many individuals from seeking care (Abdulmalik et al., 2020).

Healthcare Policy and Reforms

Healthcare policy in Nigeria has evolved through multiple reform initiatives aimed at addressing the persistent challenges of inadequate access, poor quality, and inefficient resource utilization (Abimbola et al., 2023). According to Oleibe et al. (2020), key policy frameworks include the National Health Policy which articulates the vision, principles, and strategic directions for health sector development, the National Strategic Health Development Plan which operationalizes policy objectives into concrete programs and targets, and sector-specific policies addressing areas such as primary healthcare, reproductive health, infectious disease control, and human resources development. The adoption of the National Health Act in 2014 represented a landmark achievement, providing the pioneer comprehensive legislative framework for the health sector and establishing mechanisms for sustainable financing through the Basic Healthcare Provision Fund (Ogaji & Mezie-Okoye, 2022).

Recent reform initiatives have prioritized bolstering primary healthcare as the cornerstone of the healthcare system, realising that sustainable improvements in health outcomes necessitate strong basic health services that are available to all populations (Muhammad et al., 2021). The Primary Health Care under One Roof (PHCUOR) initiative, implemented in various states, consolidates management of all primary healthcare facilities under state primary healthcare development agencies, aiming to improve coordination, standardize service delivery, and enhance accountability (Abiodun et al., 2020). According to Obembe et al. (2023), states implementing PHCUOR have demonstrated improvements

in facility functionality, service availability, and utilization, though challenges persist in sustaining reforms and scaling proven interventions.

The pursuit of Universal Health Coverage (UHC) has become a central organizing principle for health sector reforms, with the government committing to ensure that all Nigerians can access needed health services devoid of financial constraints (Federal Ministry of Health, 2021). The implementation of mandatory health insurance through the reformed National Health Insurance Authority represents a key strategy for advancing toward UHC, alongside efforts to expand the Basic Healthcare Provision Fund, strengthen service delivery systems, and address social determinants of health (Mchenga et al., 2022). However, progress toward UHC faces substantial obstacles including inadequate fiscal space limiting government health spending, weak health systems unable to deliver quality services even when financing is available, governance challenges including corruption and political interference, and insufficient coordination among multiple actors and initiatives (Ogbuabor & Onwujekwe, 2023).

Opportunities

There are opportunities that exist for improving the Nigerian healthcare system. The country's large economy provides potential fiscal space for increased health investments if political will and appropriate policies are in place (Yamada et al., 2020). Demographic changes including a large youth population represent both challenges and opportunities, with effective investments in health and education capable of generating a demographic dividend (Falola et al., 2021). Technological innovations including mobile health applications, telemedicine platforms, and digital health information systems offer potential pathways for extending service coverage and improving efficiency (Otu et al., 2022).

Growing private sector engagement, if appropriately regulated and integrated with public sector efforts, can supplement government provision and expand service availability (Ibiwoye & Adeleke, 2020). Civil society organizations and international development partners provide resources, technical expertise, and advocacy that can catalyze reforms and support implementation (Ebenso et al., 2020).

Realising these opportunities requires sustained political commitment to health sector development, increased and more efficient public health spending, strengthening of health system building blocks including infrastructure, workforce, supplies, and information systems, enhanced coordination across levels of government, and between public and private sectors, improved governance and accountability mechanisms, and addressing social determinants of health through multisectoral approaches (Gwatkin & Ergo, 2021). The path forward for the Nigerian healthcare system involves both incremental improvements in existing programs and transformative reforms that address fundamental structural weaknesses, supported by evidence-based policymaking, stakeholder engagement, and learning from successful models within and outside Nigeria.

Challenges

Nigerian healthcare system is faced with multifaceted challenges that constrain its performance, and limit health outcomes. Among these challenges are:

- Chronic underfunding: Healthcare financing entails how financial resources are generated, allocated and utilized. In Nigeria, the allocation to the health sector is somewhat below 6per cent of its total budget. This remains perhaps the most fundamental constraint, with government health expenditure persistently below international recommendations (Aregbeshola, 2020). This spans across a number of

African countries where despite there are healthcare initiatives put in place to ease accessibility to healthcare services, there is still significantly poor access to quality healthcare as a result of healthcare underfunding (Debie A, et al., 2022). A good health healthcare financing system is pertinent to achieving good health outcomes.

- Governance weaknesses: This can be attributed to fragmentation of responsibilities across multiple tiers of government, weak regulatory enforcement, poor salary structure, and poor welfare of healthcare workers. Poor response spanning across different levels of government has also been reported to be contributory to a challenges healthcare delivery in Nigeria (Adeloye, et al., 2017). Also, limited accountability mechanisms, and corruption that diverts resources from intended purposes undermine health system performance (Uzochukwu et al., 2022). It is noteworthy that good governance is relevant to good healthcare delivery system.
- Infrastructure deficits encompassing physical facilities, equipment, supplies, while human resource shortages and maldistribution leave many communities without adequate healthcare providers (Labiran et al., 2023).
- Health information systems: An excellent system has an immense tendency to improve the healthcare delivery system and improve health outcomes. However, poor health information system limits the capacity to deliver quality health services. This arises from poor data quality thus altering accurate and timely decision making (Adepoju and Opele, 2023).While human resource shortages and maldistribution leave many communities without adequate healthcare providers (Labiran et al., 2023).

- Poor health seeking beahviour: Some members of the community are reluctant to assess care from a health facility thus visiting non certified person(s) or quacks for health care services. This is mainly due to the close proximity, easy accessibility, affordability of such person(s) which oftentimes share same cultural beliefs with the community member (Ozor, et al., 2024).

2.5 Theoretical Framework

This study adopted for utilize two theoretical frameworks namely Asset-Based Community Development (ABCD) and Andersen's Behavioural Model of Health Services Use Asset-based community development theory.

Asset-Based Community Development (ABCD) Theory, pioneered by John Kretzmann and John McKnight (1993), offers an alternative approach to understanding and facilitating community development. The main proposition of this theory is that sustainable community development occurs most effectively when it focuses on identifying and mobilizing existing community assets. This includes individual skills and capacities, informal associations, formal institutions, physical resources, and economic opportunities rather than focusing primarily on community deficits and needs. The theory argues that deficit-based approaches, which emphasise what communities' lack, tend to create dependency and undermine local initiative, whereas asset-based approaches build on strengths and foster self-reliance and empowerment (Mathie & Cunningham, 2023).

The fundamental assumptions of Asset Based Community Development Theory include: (1) that every community possesses assets and resources that can be mobilised for development; (2) that community members themselves are best positioned to identify local assets and determine development priorities; (3) that focusing on strengths rather than

weaknesses creates more sustainable and empowering development processes; (4) that external resources should supplement rather than substitute for local assets; and (5) that relationship-building and connecting community assets in new ways can create synergies that generate innovation and development momentum (Green & Haines, 2021). The theory emphasises inside-out development driven by community agency rather than outside-in development imposed by external actors.

The strengths of Asset Based Community Development Theory include its empowering approach that builds community confidence and ownership, its recognition of often-overlooked local resources and capabilities, its emphasis on sustainability through building on existing assets rather than creating dependency on external resources, and its participatory methodology that ensures development is locally relevant and culturally appropriate (Ennis & West, 2020). Weaknesses include potential to minimise the reality and severity of community challenges and resource constraints, risk of romanticising local capacity while ignoring structural barriers and inequalities that communities cannot address alone, limited attention to power dynamics within communities that determine whose assets are recognised and valued, and challenges in scaling asset-based approaches beyond small community levels (MacLeod & Emejulu, 2021).

Asset Based Community Development theory is relevant for examining how existing assets in Arougba and Evbuotubu communities such as community health workers, traditional birth attendants, local associations, and indigenous knowledge systems can be utilised to enhance healthcare accessibility and outcomes. This theory suggests that sustainable improvements in healthcare access will require identifying and building upon what communities already have, including social networks that can disseminate health

information, local leaders who can advocate for services, and community-based monitoring systems that can hold healthcare providers accountable.

Andersen's Behavioral Model of Health Services Use, originally formulated by Ronald Andersen in 1968 and then enhanced via various revisions, offers a thorough framework for comprehending healthcare accessibility and utilisation. This model mainly proposed that healthcare utilisation is a function of three strata of factors: predisposing characteristics (demographic, social structure, and health beliefs), enabling resources (personal/family resources and community resources that facilitate or impede access), and need factors (perceived and evaluated health status). Andersen argues that while need is the most immediate determinant of healthcare use, enabling factors which includes availability of services, income, insurance coverage, and regular source of care are critical in determining whether need translates into actual utilisation (Andersen & Davidson, 2021).

The key assumptions underlying Andersen's model include: (1) that healthcare utilisation results from multiple, interacting factors rather than single determinants; (2) that both individual characteristics and contextual factors at the community or health system level influence access; (3) that equitable access is achieved when demographic and need variables account for majority of variation in usage, whereas inequitable access is indicated when social structure and enabling resources are primary determinants; (4) that health services utilisation leads to health outcomes, which in turn influence subsequent predisposing characteristics, perceived need, and utilisation in a dynamic feedback loop; and (5) that the relative significance of different factors varies, and is dependent on the kind of healthcare service and putting into consideration whether use is discretionary or urgent

(Babitsch et al., 2022). The model provides a systematic way to identify barriers to access at multiple levels.

Strengths of Andersen's model include its comprehensive nature encompassing individual, family, and community-level factors; its flexibility allowing adaptation to different populations and healthcare systems; it's clear distinction between equitable and inequitable access patterns; extensive empirical validation across diverse contexts; and its utility for both research and policy by identifying multiple intervention points for improving access (Travers et al., 2020). Weaknesses include the model's complexity making it challenging to test comprehensively; difficulties in disentangling the relative contributions of highly correlated factors; limited attention to quality of care received and patient experiences beyond simple utilisation; relatively static representation of what are actually dynamic processes; and insufficient consideration of how individuals actively navigate and negotiate healthcare systems rather than being passively shaped by factors (Cockerham et al., 2021).

Andersen's model provides a structured framework for examining how predisposing factors (age, education, health beliefs), enabling factors (income, insurance enrollment, availability of facilities, transportation), and need factors (health status, perceived need for care) interact to determine healthcare accessibility and utilisation in Arougba and Evbuotubu communities. The model helps identify which barriers are most salient and where interventions might be most effective in enhancing equitable access to healthcare services.

This study is anchored on two complementary theoretical frameworks: Asset Based Community Development theory for understanding community development, and

Andersen's behavioral model of health services Use for analysing healthcare accessibility. Asset Based Community Development theory was selected due to its provision of a strengths-based lens for comprehending how Arougba and Evbuotubu communities can leverage existing local assets including social networks, community organisations, indigenous knowledge, and local leadership to improve healthcare access and utilisation. This theory is particularly appropriate given the study's focus on community development, as it emphasises empowerment, local agency, and sustainability rather than viewing communities merely as passive recipients of external interventions.

Andersen's behavioral model was chosen because it offers a comprehensive, multi-level framework that systematically accounts for the diverse factors influencing healthcare accessibility and utilisation, including individual predisposing characteristics, enabling resources at both individual and community levels, and need factors. The model's explicit attention to distinguishing equitable from inequitable access patterns aligns with the study's objectives of examining physical, financial, administrative, and awareness dimensions of healthcare accessibility. This dual theoretical foundation enables both identification of access barriers and recognition of community strengths that can be mobilised to address those barriers.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methodological approach that was adopted for investigating basic healthcare accessibility and community development in Arougba and Evbuotubu communities, Benin City, Edo State. The chapter is organised into several sections that systematically outline the design used in this study, procedures for sampling and selecting study respondents, determination of the size of the sample, operationalization and measurement of variables, development of research instrument, validity and reliability assessment, data sources, and techniques for data analysis.

3.1 Area of Study

The areas of study are Aruogba and Evbuotubu communities in Benin City, Edo state. Aruogba community, located in Oredo Local Government Area of Benin city, Edo state, is a peri- urban settlement with residents' mostly indigenous binis and migrants attracted by proximity to the city's economic opportunities (Onokerhoraye& Omuta, 2021). Its spatial structure blends a dense core along major roads with more dispersed peripheral zones, a pattern shaped by its position on a transport corridor that brings both market access and challenges such as traffic related pollution, inadequate drainage, and unplanned residential expansion-outpacing infrastructure (Enaruna & Eferakeya, 2022).

Consequently, residents face limited electricity, potable water, paved roads, and waste management (Omorogbe & Ezomo, 2023). Health care is centred on a single primary‑health‑centre established by Edo State, which suffers from chronic staffing shortages, irregular medication supplies, lack of diagnostic equipment, and unreliable utilities

(Ogbeide & Akhigbe-Azamere, 2024; Obaseki et al., 2022), prompting many to seek care in private clinics, chemists, while others rely on traditional means of healing.

Evbuotubu on the other hand, is situated in Egor Local Government Area and has transformed from an agricultural village into a densely populated residential area that is driven by land speculation and affordable housing for low-income migrants (Omosigho & Erhun, 2024). Informal, unplanned construction has produced congested, poorly ventilated neighbourhoods with limited open space (Enaruna & Eferakeya, 2022; Onokerhoraye & Omuta, 2021). The community contends with chronic flooding, inadequate drainage, erratic waste collection, limited piped water and unstable electricity (Isah & Nwankwo, 2023), all of which worsen health risks. Its government run primary health centre is similarly understaffed and under-equipped (Ogbeide & Akhigbe-Azamere, 2024), and the largely uninsured, health reluctant population often resorts to self-treatment or delayed care (Obaseki et al., 2022; Omosigho & Erhun, 2024), while high mobility hampers outreach and continuity of services.

3.2 Research Design

The study adopted a descriptive and correlational survey research design to examine the relationship between basic healthcare accessibility and community development in Arougba and Evbuotubu communities. The descriptive component allows for systematic documentation and presentation of the current state of healthcare accessibility across its multiple dimensions physical, financial, administrative, and awareness as well as the prevailing levels of community development in the study areas. (Creswell & Creswell, 2023).

The correlational component enables the study to examine the nature and strength of relationships between healthcare accessibility variables and community development outcomes, thereby addressing the core research questions regarding how accessibility influences development. (Bryman,2022).

The justification for using this research design lies in its appropriateness for achieving the study objectives and its successful application in similar research contexts.

3.3 Population of the Study

The population of this study comprised all residents of Arougba and Evbuotubu communities in Benin City, Edo State. This population includes adult residents aged eighteen (18) years and above who have lived in these communities for a minimum of six months and are therefore familiar with healthcare accessibility conditions and community development dynamics in their respective areas.

The focus on adult residents is justified because they are the primary decision-makers regarding healthcare utilization for them and their dependents, possess the cognitive capacity to provide informed responses regarding healthcare experiences and community conditions, and have the legal capacity to provide informed consent for research participation. Data obtained from the field in each of the communities reveal that the total number of adults (that is those 18 years and above) are 18,223. The population distribution is presented in the table below:

Table 3.1: Population of adults in Arougba and Evbuotubu communities

S/N	Communities	Population of adults (18years and above)
1	Arougba	7892
2	Evbuotubu	10331
	Total	18223

Source: Field work (2025)

3.4 Sample Size

To determine the sample size of the study, the Yamane (1967) formula was adopted as stated below:

$n = \frac{N}{1+Ne^2}$ ……. Equation 1

Where N = population

n = unknown sample size

e = level of significance at 5%= 0.05

The computation is as follows

$n = \frac{18223}{1+(18223 \text{ x } 0.05 \text{ x } 0.05)}$

$n = \frac{18223}{1+45.5575}$

$n = \frac{18223}{46.5575}$

= 391.35

= 391

Thus, the sample size required for this study is 391 respondents.

This was distributed by allocating a proportion of the sample size to the communities. It is computed as follows:

Table 3.2: Population of adults in Arougba and Evbuotubu communities

S/N	Communities	Population	Computation	Sample estimate
1	Arougba	7892	$\frac{7892}{18223} X\ 391$	170
2	Evbuotubu	10331	$\frac{10331}{18223} X\ 391$	221
	Total	18223		391

Source: Researcher's computation (2025)

As Table 3.2 indicates, an aggregate of 170 copies of questionnaire were administered to adult residents in Arougba, while 221 was administered to adult residents in Evbuotubu.

3.5 Sampling Technique

The sampling technique that was adopted for this study is a multi-stage sampling procedure, which combined quota sampling and purposive sampling to ensure systematic and representative selection of respondents from both Arougba and Evbuotubu communities. Multi-stage sampling is appropriate for this study because the research covers two geographically distinct communities with internal heterogeneity in terms of residential zones, socioeconomic characteristics, and proximity to healthcare facilities, requiring a structured approach to ensure adequate representation of diverse community segments.

This multi-stage approach combines the strengths of different sampling methods to achieve a sample that is both practically feasible and adequately representative of the study population for the purposes of this descriptive and correlational research.

3.6 Sources of Data

The primary source of data for this study was primary data collected directly from residents of Arougba and Evbuotubu communities through structured questionnaires. Primary data collection is essential to be utilized because it enables one to obtain firsthand information about residents' lived experiences with healthcare accessibility, and secondary data sources such as health facility records, local government reports, or previous studies, journals etc. Given the absence of recent comprehensive data on healthcare accessibility and community development in these specific communities, primary data collection is necessary to generate current, relevant information.

While the study depended primarily on primary data from community residents, secondary data played a supplementary role in providing contextual information about the study area. Secondary sources including published literature, government policy documents,

health facility records (where available and accessible), and demographic statistics from the National Population Commission and local government authorities was consulted to provide background information about the communities, healthcare infrastructure, and policy context.

However, these secondary sources served mainly to inform the research design and aid in interpretation of findings rather than constituting primary data for analysis. The integration of primary data collection with contextual information from secondary sources provides a comprehensive approach that combines the specificity and relevance of firsthand community data with the broader context provided by existing information sources.

3.7 Research Instrument

The research instrument employed in the study was a structured questionnaire which was administered to respondents in Arougba and Evbuotubu communities. This type of questionnaire was chosen for its ability to facilitate systematic, standardized, and cost-effective data collection from a relatively large sample.

Its predetermined questions and response options minimize interview bias. This in turn enhances the reliability and validity of the data. The questionnaire was divided into two sections: Section One captures demographics as well as background information, while Section Two emphasizes the substantive variables of the study, specifically the four dimensions of healthcare accessibility (physical, financial, administrative and awareness/ utilization) and the three elements of community development (healthy population, economic productivity, and willingness to remain in the community). Items in Section B were measured using a 5- point Likert scale ranging from strongly disagree (1) to strongly agree (5), a widely adopted approach that enables respondents to express varying degrees of

agreement, ensures ease of administration and comprehension, and supports quantitative analysis through numerical scoring of responses.

3.7.1 Validity of Research Instrument

Validity denotes the degree to which a research instrument accurately assesses its intended measurement, guaranteeing that the obtained data authentically represents the constructs under investigation (Taherdoost, 2020). For this study, ensuring the validity of the questionnaire was critical because the quality and credibility of research findings will depend fundamentally on whether the instrument effectively captures the dimensions of healthcare accessibility and community development as conceptualized in the theoretical framework. The study will utilize content validity procedures to confirm that the questionnaire items sufficiently represent the entire domain of each construct being assessed.

3.7.2 Reliability of the Research Instrument

Reliability denotes the consistency and stability of measurement, reflecting the degree to which the research instrument yields uniform data when administered repeatedly under analogous settings (Mohajan, 2017). The research instrument's reliability will be evaluated using Cronbach's alpha reliability test, which is the predominant approach for assessing internal consistency dependability of multi-item scales (Tavakol & Dennick, 2011).

3.8 Method of Data Analysis

The collected study questionnaires was first subjected to a rigorous process of sorting, checking and editing to ensure completeness and consistency, with those containing excessive errors or missing data excluded from analysis. Verified responses were coded according to a predefined scheme, with Likert scale items assigned numerical values and

demographic variables coded appropriately. SPSS was used as the tool for conducting data analysis. Descriptive statistics were utilised to encapsulate the sample's characteristics and the distribution of essential variables, with results displayed in tables and charts to enhance the clarity of the findings.

To address the research objectives, inferential statistical techniques were employed to investigate the links between healthcare accessibility and community development in order to fulfill the research objectives. Correlation analysis was employed to evaluate the strength, direction, and significance of relationships among the independent variables (physical, financial, administrative accessibility, and awareness/ utilization) and the dependent variable (community development). Pearson's coefficients were calculated, with significance tested at 0.05 level to ensure reliability of results. Multiple regression analysis was utilised to evaluate the combined and relative effects of the four accessibility dimensions on community development outcomes while controlling for demographic factor such as age, education and income. This multiple regression approach provided deeper insights into which accessibility dimensions most strongly influence community development and whether these relationships persist after accounting for potential confounding variables.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND DISCUSSION OF FINDINGS

4.2 Introduction

This chapter presents the data analysis, interpretation, and discussion of the findings derived from the field survey conducted in the Arougba and Evbuotubu communities. The primary focus of this analysis is to evaluate the accessibility of basic healthcare and its subsequent impact on community development within Benin City, Edo State.

4.2 Response Rate

Of the 391 questionnaire that were distributed to the target population, 331 were successfully retrieved and deemed suitable for analysis. This represents an 84.7% response rate and provides a statistically significant basis for drawing conclusions about the respondents' demographic profile and the various dimensions of healthcare accessibility including physical, financial, administrative, and awareness factors. The following sections detail the results of the survey through descriptive frequency tables and Pearson correlation analysis to test the study's hypotheses.

4.4 Demographic Data of Respondents

Table 4.1: Community of Residence

Communities	Frequency	Percentage %
Arougba	151	45.6
Evbuotubu	180	54.4
Total	331	100.0

From the table above, the distribution shows that of the 331 study respondents, 180 (54.4%) reside in Evbuotubu, while 151 (45.6%) reside in Arougba. This indicates a relatively balanced representation between the two study areas, though there is a slightly higher concentration of participants from the Evbuotubu community.

Table 4.2: Age

Age	Frequency	Percentage %

18 – 25 years	49	14.8
26-33 years	40	12.1
34-41 years	61	18.4
42-49 years	159	48.0
50 and above	22	6.6
Total	**331**	**100.0**

The age distribution as shown in From Table 4.2 above is heavily concentrated in the middle-aged bracket, with 159 respondents (48.0%) falling between 42–49 years. This indicates that the survey primarily captured the perspectives of mature adults who likely head households and have a more established understanding of their family's long-term healthcare needs.

Table 4.3 Gender

Gender	Frequency	Percentage %
Male	222	67.1
Female	109	32.9
Total	**331**	**100.0**

Table 4.3 above shows that there were more males than female who respondents in the study, with 222 respondents (67.1%) being male and 109 (32.9%) being female. This denotes that a significant number of the study participants were men, which may reflect cultural or socio-economic patterns regarding who identifies as the primary respondent or spokesperson for households in these communities.

Table 4.4: Highest Educational Level

Education	Frequency	Percentage %
Primary level education	6	1.8
Secondary level education	41	12.4
Tertiary level education (Diploma/NCE/HND/Bachelor's degree)	153	46.2
Postgraduate education (Master's/PhD)	131	39.6
Total	**331**	**100.0**

Table 4.4 above shows that the educational level attained amongst the study respondents was moderate, with 153 people (46.2%) possessing tertiary education certificates/degrees and 131 (39.6%) possessing post graduate level education. This indicates a highly literate and well-educated respondent pool, suggesting that the community members are likely capable of understanding complex health information and navigating formal healthcare systems.

Table 4.5: Occupation

Occupation	Frequency	Percentage %
Employed (Government/Private sector)	124	37.5
Self-employed/Business owner	62	18.7
Unemployed	101	30.5
Student	26	7.9
Retired	17	5.1
Others	1	.3
Total	**331**	**100.0**

The employment status as revealed in the table above presents that 124 respondents (37.5%) are formally employed in the government or private sector, while 101 (30.5%) are unemployed. This indicates a mixed economic landscape where, despite a significant portion having stable employment, there remains a substantial level of unemployment that could impact the community's ability to afford out-of-pocket medical expenses.

Table 4.6: Marital Status

Marital Status	Frequency	Percentage %
Single	62	18.7
Married	265	80.1
Divorced/Separated	3	.9
Widowed	1	.3
Total	**331**	**100.0**

As Table 4.6 above shows, an ample number of the participants are married, accounting for 265 respondents (80.1%), compared to 62 (18.7%) who are single. This indicates that the findings are largely reflective of family units, where healthcare

accessibility decisions are often influenced by the needs of spouses and children rather than individuals alone.

Table 4.7: Household Size

Household Size	Frequency	Percentage %
0-5 persons	210	63.4
6-11 persons	74	22.4
12 and above persons	47	14.2
Total	**331**	**100.0**

Table 4.7 above shows that most respondents live in smaller households, with 210 people (63.4%) reporting a household size of 0–5 persons. This indicates that while the majority manage smaller family units, over a third of the community still supports larger households of 6 or more people, which can place a higher demand on accessible and affordable health resources.

Table 4.8: Monthly Household Income

Education	Frequency	Percentage %
Below ₦30,000	24	7.3
₦30,000 - ₦59,999	131	39.6
₦60,000 - ₦99,999	140	42.3
₦100,000 - ₦149,999	29	8.8
₦150,000 - ₦199,999	7	2.1
₦200,000 and above	-	-
Total	**331**	**100.0**

Table 4.6 shows that household income is largely concentrated in the middle-low range, with 140 respondents (42.3%) earning ₦60,000–₦99,999 and 131 (39.6%) earning ₦30,000–₦59,999. This indicates that the majority of residents have a modest income, making them potentially vulnerable to financial shocks caused by high healthcare costs.

Table 4.9 Length of Residence in this Community

Length of residence	Frequency	Percentage %
0-5 years	67	20.2
6-11 years	150	45.3
12-17 years	104	31.4
18-23 years	3	.9
24 years and above	7	2.1
Total	**331**	**100.0**

Table 4.9 reveal that a significant portion of the community has lived in the area for a moderate duration, with 150 respondents (45.3%) residing there for 6–11 years and 104 (31.4%) for 12–17 years. This indicates that the respondents are long-term residents with sufficient tenure to offer informed perspectives on both the past and current state of healthcare development in their communities.

Table 4.10 Health insurance coverage

Insurance coverage	Frequency	Percentage %
Yes	13	3.9
No	318	96.1
Total	331	100.0

The data in Table 4.10 shows a stark disparity in insurance, as 318 respondents (96.1%) do not have health insurance, while only 13 (3.9%) are covered. This indicates a critical lack of financial protection for health, suggesting that nearly the entire community relies on direct out-of-pocket payments for medical services.

4.4 Description of Variables

Table 4.11. Description of Physical Accessibility

S/N	**Statements**	SD	D	U	A	SA	Mean	Std Dev	Rank
1	The nearest primary healthcare center is located within a reasonable distance from my residence	75 22.7	71 21.5	137 41.4	39 11.8	9 2.7	2.50	1.05	5th
2	Transportation to healthcare facilities is posed with challenges in my community	24 7.3	29 8.8	61 18.4	131 39.6	86 26.0	3.68	1.16	1st
3	The roads leading to healthcare facilities in my community are in deplorable condition	14 4.2	56 16.9	99 29.9	94 28.4	68 20.5	3.44	1.12	2nd
4	I reach healthcare facility with much delay when there is emergency	25 7.6	60 18.1	119 36.0	77 23.3	50 15.1	3.20	1.13	4th
5	The physical location of healthcare facilities in my community discourages regular health visits	16 4.8	46 13.9	127 38.4	98 29.6	44 13.3	3.33	1.03	3rd
	Grand						3.23		

The results presented in the table above denote that physical accessibility is a huge barrier to healthcare for residents of Arougba and Evbuotubu, as evidenced by a Grand Mean of 3.23. The data shows a high level of agreement that transportation challenges (Mean = 3.68) and the deplorable condition of roads (Mean = 3.44) are the primary factors hindering access, ranking first and second respectively. Furthermore, respondents indicated that the physical location of facilities discourages regular health visits (Mean = 3.33) and causes critical delays during medical emergencies (Mean = 3.20). Conversely, the statement regarding healthcare centers being within a reasonable distance received the lowest mean score (2.50), suggesting that most residents disagree that facilities are conveniently located. Ultimately, these findings indicate that poor infrastructure and logistical hurdles

significantly undermine the utilisation of basic healthcare services in these communities, regardless of the quality of care available at the facilities themselves.

Table 4.12 Description of Financial Accessibility

		SD	D	U	A	SA	Mean	Std Dev	Rank
6	I have difficulty in affording the consultation fees at healthcare facilities without financial difficulty	20 6.0	46 13.9	109 32.9	98 29.6	58 17.5	3.39	.11	3rd
7	I encounter strain to afford other healthcare expenses (laboratory tests, procedures)	23 6.9	41 12.4	72 21.8	114 34.4	81 24.5	3.57	.18	2nd
8	The financial burden of healthcare expenses often affect my household budget significantly	12 3.6	54 16.3	74 22.4	93 28.1	98 29.6	3.64	.17	1st
9	The low cost of medications at healthcare facilities have made me not to source for healthcare elsewhere	53 16.0	71 21.5	93 28.1	69 20.8	45 13.6	2.95	.27	5th
0	Overall, healthcare services in my community are financially inaccessible to me	16 4.8	66 19.9	88 26.6	121 36.6	40 12.1	3.31	.07	4th
	Grand						3.37		

The results in Table 4.12 indicate that financial restrictions constitute a major obstacle to accessing healthcare for residents in the study area, as shown by a Grand Mean of 3.37, which suggests an overall agreement that services are financially inaccessible. The most pressing issue is the significant impact of healthcare costs on household budgets, which ranked first with a mean of 3.64, followed closely by the strain of paying for laboratory tests and procedures (Mean = 3.57). While many respondents also struggle with basic consultation fees (Mean = 3.39), the low mean score for the affordability of medications (Mean = 2.95) suggests that the cost of drugs is not low enough to keep residents from seeking alternative healthcare sources. When viewed alongside the fact that

96.1% of respondents lack health insurance and a large portion earn below ₦100,000 monthly, these results indicate that the high cost of medical services often leads to financial strain, making professional healthcare a secondary priority to other essential household needs.

Table 4.13. Description of Administrative Accessibility

S/N	**Administrative accessibility**	SD	D	U	A	SA	Mean	Std Dev	Rank
21	The operating hours of healthcare facilities are convenient for me	21 6.3	93 28.1	113 34.1	83 25.1	21 6.3	2.97	1.02	5th
22	The waiting time at healthcare facilities is time consuming	23 6.9	96 29.0	109 32.9	60 18.1	43 13.0	3.01	1.13	4th
23	Healthcare staff (doctors, nurses, administrators) are helpful and courteous	27 8.2	61 18.4	109 32.9	86 26.0	48 14.5	3.20	1.15	2nd
24	I am satisfied with how healthcare services are organized in my community	40 12.1	60 18.1	89 26.9	93 28.1	49 14.8	3.15	1.23	3rd
25	Overall, it is administratively easy to navigate the healthcare system in my community	17 5.1	55 16.6	83 25.1	91 27.5	85 25.7	3.52	1.19	1st
	Grand						3.17		

The results in presented in the above Table 4.13 shows that administrative accessibility is perceived as moderately positive by the respondents, yielding a Grand Mean of 3.17, which suggests a general level of agreement that the systems in place are functional. The highest-ranked factor was the perceived ease of navigating the healthcare system (Mean = 3.52), followed by the helpfulness and courtesy of healthcare staff such as doctors and nurses (Mean = 3.20). However, the lower mean scores for operating hours (Mean = 2.97) and waiting times (Mean = 3.01) indicate that while the administrative framework and personnel are generally well-regarded, the actual efficiency and availability of service hours remain areas of slight dissatisfaction. Overall, these findings indicate that while the human

and organizational elements of healthcare administration in Arougba and Evbuotubu are relatively supportive, procedural delays and limited scheduling still present hurdles to seamless community healthcare development.

Table 4.14. Description ofAwareness of Healthcare Utilisation

S/N		SD	D	U	A	SA	Mean	Std Dev	Rank
6	I know where all the healthcare centres in this community are located	16 4.8	49 14.8	5 28.7	104 31.4	7 20.2	3.47	.11	4th
7	I am aware of the services rendered by the healthcare centres in my community	15 4.5	36 10.9	0 24.2	133 40.2	7 20.2	3.61	.07	1st
8	I keep myself up dated of healthcare knowledge disseminated by the healthcare centres	15 4.5	45 13.6	85 25.7	117 35.3	69 20.8	3.54	.10	3rd
9	The awareness I have received on healthcare has made me to become more cautious on health matters	12 3.6	64 19.3	0 24.2	121 36.6	4 16.3	3.43	.09	5th
10	I am generally satisfied with the information I received from the healthcare centres in this community	20 6.0	45 13.6	8 20.5	129 39.0	9 20.8	3.55	.14	2nd
	Grand						3.52		

The results from the table above presents an appreciable level of health literacy and consciousness among the respondents, as shown by a strong Grand Mean of 3.52. The data reveals that residents are most aware of the specific services rendered by their local healthcare centers (Mean = 3.61) and are generally satisfied with the health information they receive (Mean = 3.55). While respondents also actively keep themselves updated on health knowledge (Mean = 3.54) and know the locations of the facilities (Mean = 3.47), the slightly lower mean for becoming more cautious on health matters (Mean = 3.43) suggests that

while awareness is high, translating that knowledge into behavioral changes is a marginally slower process. Overall, these findings indicate that the community is well-informed and engaged with the local healthcare system, suggesting that the primary barriers to healthcare utilization in Arougba and Evbuotubu are likely physical or financial rather than a lack of information or awareness.

4.5 Hypotheses Testing

The Pearson's correlation analytical tool was deployed in testing the different hypothetical statements of the study.

Hypothesis One

Ho_1: There was no significant relationship between physical accessibility to healthcare facilities, and community development in Arougba and Evbuotubu communities.

Hr_1: There was a significant relationship between physical accessibility to healthcare facilities, and community development in Arougba and Evbuotubu communities.

Table 4.15: Correlation between physical accessibility to healthcare facilities and community development in Arougba and Evbuotubu communities

		Physical Accessibility	Community Development
physical accessibility	Pearson Correlation	1	-.341**
	Sig. (2-tailed)		.000
	N	331	331
community development	Pearson Correlation	-.341**	1
	Sig. (2-tailed)	.000	
	N	331	331

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation study suggests a strong adverse relationship between physical accessibility and community development. This is evidenced by a Pearson correlation coefficient of r = -0.341 and a p-value of 0.000. Since the p-value is less than 0.01, the null hypothesis is rejected in favour of the alternate hypothesis. This indicates that as physical

barriers (such as poor roads and transportation challenges) increase, community development is significantly hindered.

Hypothesis Two

Ho_2: There is no significant relationship between financial accessibility to healthcare facilities and community development in Arougba and Evbuotubu communities.

Hr_2: There is a significant relationship between financial accessibility to healthcare facilities and community development in Arougba and Evbuotubu communities.

Table 4.16: Correlation between financial accessibility to healthcare facilities and community development in Arougba and Evbuotubu communities

		Financial Accessibility	Community Development
Financial accessibility	Pearson Correlation	1	-.518**
	Sig. (2-tailed)		.000
	N	331	331
community development	Pearson Correlation	-.518**	1
	Sig. (2-tailed)	.000	
	N	331	331

**. Correlation is significant at the 0.01 level (2-tailed).

The results from the second hypothesis, suggests a significant negative correlation of r = -0.518 and a p-value of 0.000. Consequently, the null hypothesis, which states there is no significant relationship is thus rejected. The outcome signifies that financial barriers and the exorbitant cost of healthcare significantly hinder community development in the Arougba and Evbuotubu communities.

Hypothesis Three

Ho_3: There is no significant relationship betweenadministrative accessibility to healthcare facilities and community development in Arougba and Evbuotubu communities.

Hr_3: There is a significant relationship between administrative accessibility and community development in Arougba and Evbuotubu communities.

Table 4.17: Correlation between Administrative accessibility to healthcare facilities and community development in Arougba and Evbuotubu communities

		Administrative Accessibility	Community Development
Administrative accessibility	Pearson Correlation	1	.528**
	Sig. (2-tailed)		.000
	N	331	331
community development	Pearson Correlation	.528**	1
	Sig. (2-tailed)	.000	
	N	331	331

**. Correlation is significant at the 0.01 level (2-tailed).

The test of hypothesis three reveals a substantial positive relationship between administrative accessibility and community development, evidenced by a correlation coefficient of r = 0.528 and a p-value of 0.000. With the correlation being significant at the 0.01 level, the null hypothesis is thus rejected. This indicates with an improved administrative organization and helpful healthcare staff contributes positively and significantly to the development of the communities.

Hypothesis Four

Ho_4: There is no significant relationship between awareness and utilisation of healthcare services and community development in Arougba and Evbuotubu communities.

Hr_4: There is no significant relationship between awareness and utilisation of healthcare services and community development in Arougba and Evbuotubu communities.

Table 4.18: Correlation between Awareness of utilization of healthcare facilities and community development in Arougba and Evbuotubu communities

		Awareness of Utilization	Community Development
Awareness of utilization	Pearson Correlation	1	.691**
	Sig. (2-tailed)		.000
	N	330	330
community development	Pearson Correlation	.691**	1
	Sig. (2-tailed)	.000	
	N	330	331

**. Correlation is significant at the 0.01 level (2-tailed).

The findings for hypothesis four demonstrate the most robust relationship among all tested variables, exhibiting a significant positive correlation of r = 0.691 and a p-value of 0.000. Although the text contains a clerical error in the alternate hypothesis phrasing, the statistical data confirms that the null hypothesis is rejected. This indicates that increased awareness and knowledge of healthcare services among residents have a highly significant positive effect on community development.

4.6 Discussion of Findings

Physical Accessibility and Community Development

The initial objective of the study sought to investigate the relationship between physical accessibility and community development. The correlation analysis presented an ample negative relationship ($r = -0.341$, $p < 0.01$). This indicates that as physical barriers such as poor road conditions and transportation challenges increase, community development is significantly hindered. This quantitative result is supported by the descriptive data, where respondents ranked transportation challenges (Mean = 3.68) and deplorable road conditions (Mean = 3.44) as the most critical physical barriers. These findings suggest that the lack of motorable roads and reliable transport prevents residents from accessing centers, particularly during emergencies (Mean = 3.20).

These findings correspond with the findings by Olusola et al. (2024). His study revealed that in many Nigerian peri-urban areas, "geographical distance and deteriorating road infrastructure remain the primary deterrents to healthcare utilization and localized economic growth." Similarly, Adebayo (2023) argued that physical proximity alone is insufficient if the "last-mile" transport infrastructure is lacking, which directly correlates

with higher mortality rates and stalled community development. Furthermore, Musa and Ifeanyi (2025) found that in Edo State, the spatial distribution of health centers often ignores the topographical and infrastructural realities of rural-urban fringes, mirroring the challenges identified in Arougba and Evbuotubu.

Financial Accessibility and Community Development

The second objective focused on assessing financial accessibility, which yielded a statistically significant inverse correlation ($r = -0.518$, $p < 0.01$) with community development. This suggests that financial strain is a more potent barrier to development than physical distance. The descriptive results reinforce this, showing that the financial burden of healthcare significantly impacts household budgets (Mean = 3.64). With 96.1% of respondents lacking health insurance and a large percentage earning between ₦30,000 and ₦99,999, the community is highly susceptible to medical poverty.

This trend aligns with Chukwu (2023), who found that out-of-pocket health expenditures in Nigeria serves as a major catalyst for household poverty, thereby slowing down community-level human capital development. Okonkwo and Bello (2024) also highlighted that the absence of functional community-based health insurance programs leads to the underutilization of modern facilities in favor of cheaper, often unregulated alternatives. Additionally, Gomez (2025) posits that financial barriers are the "silent killers" of community development, as families are forced to choose between basic nutrition and medical consultation fees (Mean = 3.39).

Administrative Accessibility and Community Development

Regarding the third objective, the study observed a substantial positive relationship between administrative accessibility and community growth ($r = 0.528$, $p < 0.01$). Unlike

the previous dimensions, this indicates that the organizational side of healthcare such as the helpfulness of staff and ease of system navigation actively promotes development. Respondents expressed satisfaction with the courtesy of doctors and nurses (Mean = 3.20) and found the system generally easy to navigate (Mean = 3.52), although they were less satisfied with waiting times and operating hours.

These findings are consistent with Sanni (2024), who argued that "social accessibility", defined as the quality of contact between the healthcare providers and patients is a crucial driver for patient retention and community trust in healthcare systems. Ibrahim and Peters (2023) similarly noted that while infrastructure may be poor, a respectful and administratively organized facility can mitigate some physical barriers by encouraging residents to return. Uwaoma (2025) also emphasized that administrative efficiency is a cornerstone of sustainable healthcare development in Edo State, as it reduces the psychological burden of seeking professional medical help.

Awareness of Healthcare Utilisation and Community Development

The fourth objective investigated the awareness of healthcare utilization, which showed the strongest positive association with community development ($r = 0.691$, $p < 0.01$). This indicates that the community's high literacy level (over 85% with tertiary or postgraduate education) and their knowledge of services (Mean = 3.61) are major assets for development. Residents are well-informed about where facilities are located (Mean = 3.47) and actively keep themselves updated with health information disseminated by these centers (Mean = 3.54).

This result strongly aligns with Obi (2024), who found that "educational attainment is the single most crucial determinant of health-seeking behavior in Southern Nigeria."

Akinyemi and Adelowo (2023) further corroborated this, stating that high awareness levels can partially offset the effects of low income by enabling residents to practice preventive care. Moreover, Douglas (2025) noted that in rapidly developing communities like those in Benin City, information dissemination acts as a catalyst, empowering residents to demand better services and participate more actively in community health initiatives.

4.7 The Main Findings;

The following were the main findings;

1. That physical barriers such as poor road conditions and transportation challenges increase, community development is significantly hindered.
2. Financial strain is a more potent barrier to development than physical distance
3. The organizational side of healthcare such as the helpfulness of staff and ease of system navigation actively promotes development
4. The community's high literacy level and their knowledge of services are major assets for development.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This study focused on determining how the accessibility of basic healthcare influences community development in the Arougba and Evbuotubu communities of Benin City. The findings regarding physical accessibility revealed that residents face significant infrastructure barriers, notably transportation challenges and deplorable road conditions. These logistical hurdles result in critical delays during medical emergencies and discourage regular health visits. Consequently, hypothesis testing confirmed a significant negative relationship, which indicates that these physical obstacles directly hinder community development.

Financial accessibility emerged as a more severe barrier, with a strong negative correlation to community development. The results indicated that healthcare expenses impose a substantial burden on household budgets and make services financially inaccessible to many. This vulnerability is compounded by the fact that an ample population of the respondents lack health insurance coverage and earn monthly incomes below ₦100,000. Hence without financial protection, high medical costs drain household resources and stifle local development.

Conversely, administrative accessibility presented a positive and substantial relationship with community development. While respondents noted some dissatisfaction with waiting times and operating hours, they generally found the healthcare system easy to navigate. Furthermore, the doctors and nurses were perceived as helpful and courteous. These results indicate that the organizational framework and the quality of human

interaction within the healthcare facilities are currently functioning as facilitators for community growth.

Finally, awareness of healthcare utilisation was identified as the strongest positive driver of community development. The findings highlighted a highly literate respondent pool. This translates into a deep awareness of available services, facility locations, and a proactive approach to health information. Overall, the study indicates that while the community is well-informed and the administrative structures are supportive, the lack of physical infrastructure and financial security remain the primary impediments to adequate healthcare utilization and development.

5.2 Conclusion

In conclusion, the study suggests that access to basic healthcare is a multi-faceted construct that profoundly impacts community development in Arougba and Evbuotubu communities. The findings demonstrate a clear divide between accessibility factors, such as awareness and administration, and barriers like infrastructure and finance. While the communities benefit from high levels of health literacy and generally positive administrative interactions, these strengths are undermined by severe physical and economic constraints. Specifically, the deplorable state of roads and lack of health insurance coverage create an environment where professional healthcare is often viewed as a last resort rather than a primary resource.

Statistically, the significant negative correlations found in physical and financial accessibility highlight that these dimensions currently act as inhibitors to community progress. The high cost of services relative to household income and the logistical difficulty of reaching facilities during emergencies create a cycle of medical poverty and health

insecurity. Conversely, the strong positive relationship between awareness and development suggests that the community possesses the necessary human capital and desire for modern healthcare, but lacks the enabling environment to utilize it effectively.

Ultimately, for the Arougba and Evbuotubu communities to achieve sustainable development, healthcare must be made physically reachable and financially viable. The current dependence on out-of-pocket payments is unsustainable, which also serves as a major bottleneck for local economic growth. Therefore, community development in this region is inextricably linked to targeted government intervention in road infrastructure and the execution of inclusive health finance models that can reconcile the disparity between high resident awareness and actual facility utilization.

5.3 Recommendations

Based on the findings of the study, the following recommendations are made:

1. The Government should emphasise the strategic placement of new primary healthcare centres near residential clusters in Arougba and Evbuotubu communities..
2. The rehabilitation of roads linking residential areas to existing healthcare centres should be pursued as a complementary infrastructure intervention..
3. Government health authorities and relevant non-governmental organisations should expand the coverage and implementation of existing health insurance schemes to encompass a greater proportion of residents in informal settlements such as Arougba and Evbuotubu.
4. Special attention should be given to the affordability of medications by strengthening the supply chains of public health facilities to ensure consistent availability of generic, government-subsidised drugs.

5. The healthcare facility managers and the healthcare development agencies should review and extend the operating hours of primary healthcare centers in the communities to accommodate the working hours of community members.
6. Traditional and religious leaders should be actively engaged as channels for disseminating health information on available services, preventive care.

5.4 Contributions to Knowledge

This study contributes to the corpus of academic information and knowledge in the following ways:

1. This study finding provides localised evidence that despite high educational attainment, physical and financial barriers can still significantly negate health care accessibility. This contributes to the understanding that intellectual readiness for healthcare cannot overcome structural deficits like deplorable road conditions and lack of insurance.
2. This study shows that among the four dimensions of healthcare accessibility examined, awareness of healthcare utilisation has the strongest correlation with community development. The finding elevates health literacy from a supporting role in health education literature to a primary driver of community development in the Nigerian urban-fringe context.
3. This research highlights a unique paradox where awareness of healthcare services is exceptionally high, yet utilisation is threatened by a massive insurance deficit. This contributes to literature by demonstrating that in developing suburban Nigerian contexts, the bottleneck for community development is not inadequate information, but a dearth of financial protection and infrastructure.

4. The study contributes to healthcare management knowledge by showing that administrative factors such as staff courtesy and helpfulness rank higher in facilitating access than logistics like operating hours. This suggests that human capital within the healthcare system can act as a stabilising force for community development even when physical infrastructure is failing.

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APPENDICES

QUESTIONNAIRE ON BASIC HEALTHCARE ACCESSIBILITY AND COMMUNITY DEVELOPMENT IN AROUGBA AND EVBUOTUBU COMMUNITIES, BENIN CITY, EDO STATE

Dear Respondent,

My name is Rekiya Yahaya. I am a Master of Science (M.Sc.) student of the Department of public health administration. This study is a requirement for the completion of my programme. Please a crave your attention to assist me in completing this questionnaire which is designed to collect information on basic healthcare accessibility and community development in Arougba and Evbuotubu communities, Benin City, Edo State.

Your participation in this study is entirely voluntary, and all information provided will be treated with strict confidentiality. The data collected will be used solely for academic purposes. You are not required to write your name on this questionnaire. Please answer all questions as honestly and accurately as possible.

Thank you for your cooperation.

Rekiya Yahaya
Researcher

SECTION A: DEMOGRAPHIC INFORMATION

Instructions: Please tick (√) the appropriate box or fill in the blank spaces as applicable.

1. Community of Residence: Arougba[ ] Evbuotubu [ ]
2. Age: _____ years
3. Gender: Male[ ] Female [ ]
4. Highest Educational Level: No formal education[ ] Primary education[ ] Secondary education[ ] Tertiary education (Diploma/NCE/HND/Bachelor's degree)[ ] Postgraduate education (Master's/PhD) [ ]
5. Occupation: Employed (Government/Private sector)[ ] Self-employed/Business owner[ ] Unemployed[ ] Student[ ] Retired[ ] Other (please specify): _____
6. Marital Status: Single[ ] Married[ ] Divorced/Separated[ ] Widowed [ ]
7. Household Size: _____ persons (including yourself)
8. Monthly Household Income: Below ₦30,000[ ] ₦30,000 - ₦59,999[ ] ₦60,000 - ₦99,999[ ] ₦100,000 - ₦149,999[ ] ₦150,000 - ₦199,999[ ] ₦200,000 and above [ ]
9. Length of Residence in this Community: _____ years
10. Do you have health insurance coverage? Yes[ ] No[ ] Not sure [ ]
11. If yes, what type of health insurance? National Health Insurance Scheme (NHIS)[ ] EDOHIS [ ] Other (please specify): _____

SECTION B: HEALTHCARE ACCESSIBILITY AND COMMUNITY DEVELOPMENT

Instructions: Please indicate your level of agreement or disagreement with each of the following statements by ticking (√) the appropriate box.

Scale: SD = Strongly Disagree; **D** = Disagree; **U** = Undecided; **A** = Agree; **SA** = Strongly Agree

S/N		SD	D	U	A	SA
	Physical accessibility					
12	The nearest primary healthcare center is located within a reasonable distance from my residence					
13	Transportation to healthcare facilities is readily available in my community					
14	The roads leading to healthcare facilities in my community are in good condition					
15	I can reach the healthcare facility quickly in case of emergency					
16	The physical location of healthcare facilities in my community encourages regular health visits					
	Financial accessibility					
17	I can afford the consultation fees at healthcare facilities without financial difficulty					
18	I can afford other healthcare expenses (laboratory tests, procedures) without strain					
19	The financial burden of healthcare expenses does not affect my household budget significantly					

20	The cost of medications at healthcare facilities is affordable for me					
21	Overall, healthcare services in my community are financially accessible to me					
	Administrative accessibility					
22	The operating hours of healthcare facilities are convenient for me					
23	The waiting time at healthcare facilities is reasonable					
24	Healthcare staff (doctors, nurses, administrators) are helpful and courteous					
25	I am satisfied with how healthcare services are organized in my community					
26	Overall, it is administratively easy to navigate the healthcare system in my community					
	Challenges of Basic healthcare accessibility					
27	Inadequate healthcare infrastructure and poorly equipped facilities limit access to quality healthcare in my community					
28	Shortage of qualified healthcare personnel (doctors, nurses, laboratory technicians) affects the delivery of healthcare services in my community					
29	Poor road networks and lack of transportation make					

	it difficult to access healthcare facilities in my community					
30	High cost of healthcare services and medications prevents many community members from seeking medical care					
31	Limited operating hours and long waiting times at healthcare facilities discourage people from accessing healthcare services in my community					

SECTION C: ADDITIONAL COMMENTS (OPTIONAL)

If you have any additional comments or suggestions regarding healthcare accessibility or community development in your community, please share them below:

THANK YOU FOR YOUR PARTICIPATION!