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Access to Health Insurance and Health-Seeking Behavior in a Nigerian Suburban Community

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Abstract

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Dissertation Submitted in Partial Fulfillment of the

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Abstract

The purpose of this study was to understand the effects of access to health insurance on the healthcare-seeking behavior of the population in four suburban communities in Rivers State, Nigeria. The conceptual framework of the study is based on Anderson's behavioral model of health services use. The study looked at how access to health insurance affects the healthcare seeking behavior and the preventive care seeking behavior of the study population. Two-hundred and seventy participants were surveyed using the Health Care Access and Utilization Survey (HCAUS) questionnaire. Data were analyzed using descriptive statistics (frequencies and percentages) and bivariate logistic regression. Respondents with health insurance had a higher statistically significant proportion for having access to health care compared to respondents without health insurance (38.18% vs. 11.16%; *p=0.001*). Respondents with health insurance were 4.92 times more likely to have access to health care compared to respondents without health insurance (OR=4.92; *p=0.001*; 95% CI: 2.47-9.80). Respondents with access to health insurance had a higher statistically significant proportion for seeking of preventive care compared to respondents without access to health insurance (23.64% vs. 12.09%; *p=0.05*). The analysis showed that respondents who currently have access to health insurance were 2.25 times more likely to seek preventive care compared to respondents without access to health insurance (OR=2.25; *p=0.05*; 95% CI: 1.06-4.74). The findings in this study may help health policy advocates, formulators, and implementers design effective, universal, and affordable health insurance programs for poor and vulnerable communities where finance is still a major barrier to healthcare access.

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Dedication

I dedicate this dissertation to my late parents, Mr. Joseph Nyassedi Mensah and Mrs. Mojisola Abake Mensah, who both emphasized the importance of education to me very early and invested in my education despite their modest resources.

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Chapter 1: Introduction to the Study

When President Clinton in 1994 asked the United States Congress to pass both a welfare reform and health reform bill, the primary drive was the reduction of the number of Americans on the welfare rolls at the time (Clinton, W. J. 1994). He believed that a universal healthcare would ensure that those who leave welfare and take low-wage, no benefits jobs, are not stuck with healthcare bills that force them back to the welfare rolls. President Clinton knew how hard this would be because four other United States Presidents-- President Roosevelt, President Truman, President Nixon, and President Carter--had all tried to pass into law some form of universal health insurance program and failed with some of them losing elections because of the attempt (Carpenter, C. E. 2009). Although President Clinton's effort also failed, he had however awakened the consciousness a whole nation to the issue of uninsured Americans and the devastating effect of catastrophic health challenges on the finances of families thereby contributing to poverty in the country. This awakened consciousness helped in no little way to galvanize support for President Obama's Affordable Healthcare Act that passed in 2010, providing subsidized health insurance to uninsured Americans. The efforts of all these United States Presidents (five Democrats and a Republican) highlight the importance of access to health insurance in any modern society.

In the last decade, access to health insurance has dominated the discourse in major industrialized economies of the world with the world's bastion of capitalism, the United States of America, passing a healthcare reform act that provides a subsidy to enable uninsured Americans to buy health insurance. In sub-Saharan Africa, including Nigeria,

access to health insurance is still very limited or nonexistent; however, it is unknown if this contributes to the health-seeking behavior of the people that affects health care utilization in this region. The World Health Organization (World Health Organization [WHO], 2016) stated that the centrality of human happiness and well-being is better health with the substantial contribution to the economic progress of the society because populations that are healthy live longer; they produce more and save more.

In Africa and specifically Nigeria, very few studies have been published regarding the impact of access to health insurance on health-seeking behavior and healthcare utilization. It is important to research the accessibility of health insurance and its impact on the health-seeking behavior of a representative of the Nigerian population. This research will enable researchers to see if there is any impact on the utilization of health services in the studied community or if there are any predisposing factors, enabling factors, and need factors that affect health services use in the community (Chomi, Mujinja, Enemark, Hansen, & Kiwara, 2014).

Financing of healthcare in Africa is challenging and inadequate, according to proceedings recorded at the 15th ordinary session of the African Union (AU) held in Uganda in 2010. The AU (2010) reported that 27 out of the 53 African countries still spend less than $50 per person per annum with most of the funding coming from private sources with supplements from government and donors (Sambo, Kirigia, & Ki-Zerbo, 2010). In this session of the AU, the inadequacy of healthcare financing was the focus of discussions among high-level policy makers. They attributed the inadequate budgetary provision for healthcare to some factors including the fact that most countries in the

region do not have a clear and articulated vision for financing their health care (Sambo et al., 2010).

Health insurance as a financing option for healthcare is relatively new in Africa; governance and accountability structures for health insurance organizations and the availability of experienced personnel have been serious challenges for companies interested in health insurance operations. Blanchet, Fink, and Osei-Akoto (2012) reported that Ghana, a neighboring country to Nigeria, only commenced looking at alternative ways of financing healthcare in the early 1990s, culminating in the establishment of the National Health Insurance Scheme (NHIS) in 2003 (Blanchet et al., 2012). Although Nigeria established the NHIS in 1999, a study by Ibiwoye and Adeleke (2008) found that even though the Scheme has great potential to improve access to quality healthcare, the lack of awareness among the population surveyed affected enrollment and participation in the program.

The lack of functional health insurance as a source of financing healthcare in Africa and especially Nigeria has resulted in the inadequate financial resources for health infrastructure thereby making the majority of the population to depend on government-funded health facilities to provide health services. According to Blanchet et al. (2012), in Ghana, the practice of government-funded health services failed because the facilities soon became overburdened and financially unstainable due to the economic challenges in the 1970s. This financial stress eventually led to the shortages of essential medicines and near collapse of the health system with worsening effect on the access to healthcare for the poor (Blanchet et al., 2012).

Nigeria, Ghana's neighbor and fellow British Commonwealth country, did not fare better. According to Ibiwoye and Adeleke (2008), there has been a steady deterioration of the Nigerian healthcare delivery system, leading to poor health facilities, high costs of care, and limited access to care. The need to reverse the trend of declining healthcare facilities and poor access to care made more African countries including Nigeria embrace health insurance as a health services financing option; this culminated in Nigeria enacting a law to set up the National Health Insurance Scheme in 1999 (Ibiwoye & Adeleke, 2008).

Health insurance improves access to healthcare, and lack of it can increase the impact of health shocks on those without effective access to healthcare (Gustafsson-Wright, Janssens, & van der Gaag, 2011). The quest to improve healthcare financing and enhance access to care through health insurance has culminated into the increased focus on community health insurance schemes for rural and poor populations such as the Pinggu community in Beijing, China (Zhu, Zhu, & Liu, 2008). The resulting effect of community health insurance is an enhanced access to healthcare (Donfouet, Makaudze, & Mahieu, 2011).

While researchers showed that health insurance enhances access to healthcare, just a few focused on the effect on health-seeking behavior. Where there are such focus the causal effect of health insurance on health seeking behavior was not affirmed. Robyn et al. (2011), in their study in Burkina Faso in West Africa, found some positive association between access to health insurance and care-seeking. They also could not

reject the null hypothesis that access to health insurance does not affect health seeking behavior because of other challenges (Robyn et al., 2011).

Background

Access to healthcare in sub-Sahara Africa has been a subject of intense discussion in the last 2 decades. This discourse has culminated into the United Nations (UN) phrase "Health for All in the Year 2000." With the passing of the Year 2000 without achieving health for all, the UN replaced the phrase with another catch phrase "Millennium Development Goals (MDGs)" that seeks to improve health and economic indices of developing and under-developed economies especially those in sub-Sahara Africa by 2015. Post 2015, these goals are now named "Sustainable Development Goals (SDGs)," and the third of these 17 goals are meant to ensure healthy lives and promote well-being for all at all ages (UN, 2015). Researchers, including epidemiologists and scientists, have lately showed increased interest in gaining a better understanding of health seeking behavior and its relation the causes of child mortality, which is one of the indices now tracked by the UN MDGs now SDGs (Abdulraheem & Parakoyi, 2009; Ogunlesi, Runsewe-Abiodun, & Olanrewaju, 2010).

Nigeria, with an estimated population of about 192 million (WHO, 2017), is the most populous country in Africa. It is a federation divided into six geo-political zones, 36 states, one federal capital territory, and 774 local governments (National Population Commission, 2010). All jurisdictions have established healthcare facilities providing primary, secondary, specialist, and referral health services. While one would expect that this multiplicity of healthcare infrastructure would increase access to healthcare and

improve the health-seeking behavior of the population, it has not. Abdulraheem and Parakoyi (2009) argued that for a variety of reasons, most of the facilities at the local government level have very low utilization, and in some cases, they are in varying states of disrepair.

The low usage of healthcare institutions, especially government ones at the local government level where the majority of the population resides, could be attributable to some issues. The lack of a clear and coordinated strategy or policy for a workable healthcare financing, leads to the inadequacy of resources. These include qualified healthcare personnel, functional medical equipment, drugs, supplies, and consumables at the primary level of care that is mostly at the local government level (Nnebue et al., 2014). In cases where some form of financing is available, the available resources are allocated disproportionately to health facilities in the urban and suburban centers. What gets to those in the rural areas where the most vulnerable of the population resides can hardly meet any need of those facilities thereby further improvising them (Onwujekwe, Hanson, & Uzochukwu, 2012). This lack of funding and under-funding of healthcare infrastructure at the local government level creates a huge capacity issue that affects the ability of these facilities to support health initiatives dictated by government policies (Wollum, Burnstein, Dwyer-Lindgren, & Gakidou, 2015).

Culture, beliefs, and experiences influence the health behavior of people around the world. This impact leads to some people's choice of traditional healthcare alternatives to Western medicine because of their good personal experience with such care and their perceived shortcomings of the advanced medicine (Scrimshaw, 2006). For this study, the

definition of health-seeking behavior is how soon and frequently a person seeks Western healthcare service either as a curative measure or a preventive measure.

Statement of the Problem

In Nigeria, where governments at the three levels of jurisdiction have invested heavily in healthcare infrastructure, the patronage of those facilities, especially in the suburban and rural areas have been declining while alternative private facilities such as traditional birth homes, private clinics, and hospitals continue to flourish (Izugbara & Ukwayi, 2004; Ogunlesi, Runsewe-Abiodun, & Olanrewaju, 2010; Onwujekwe et al, 2008). Some researchers have opined that the patronage of private and mostly unregulated health institutions, such as traditional birth homes, continue to increase because patrons, especially women in reproductive age, see them as good and more affordable (Izugbara & Ukwayi, 2004). Some other researchers have noted access to quality health care in resources-limited countries is impeded by the lack of resources to finance the acquisition of health insurance (Ogunlesi, Runsewe-Abiodun, & Olanrewaju, 2010; Onwujekwe et al., 2008). However, while some researchers have focused on the correlation of the access to health insurance to physical access to health facilities, very few have explored in detail the issue of access to healthcare in Nigeria and the impact on the health seeking behavior of the people. I aim to obtain and present more information on access to health services, the role of a community health insurance program in enhancing the access, and the effect of an enhanced access on the health-seeking behavior of the study population.

Purpose of the Study

In 2010, the Shell Petroleum Development Corporation (SPDC) collaborated with four communities in Rivers State, Nigeria. The communities are Oginigba, Rumuezeolu, Rumuomasi, and Rumuobiokani, and a Health Maintenance Organization (HMO) named Healthcare International (HCI) to establish the Obio community health insurance scheme that provides healthcare to the population of the collaborating communities (SPDC, 2010). HCI is an incorporated managed care organization registered with the NHI) as a national health insurance provider with concurrent accreditation to provide health insurance to those who voluntarily participate in the voluntary Contributor Social Health Insurance Program (VCSHIP, HCI, 2016; NHIS, 2016). HCI currently provides health care services to more than 450,000 people through a network of about 3,000 hospitals available locally and internationally (HCI, 2016).

The purpose of this study was to evaluate the impact of this health insurance scheme on the health seeking behavior of the members of the focused communities. I examined the independent variables of access to health insurance and predisposition factors such as education, ability factors such as finance, and need factors such as illness. The dependent variables were health-seeking behavior and health services utilization.

Research Questions and Hypotheses

The lack of access to healthcare results in poor health. This is the so-called health disparity that results in shortened lifespan especially among the economically disadvantaged. This trend was described even in the developed economies. Zhu, Brawarsky, Lipsitz, Huskamp, and Has (2010) found that while Massachusetts health

reform was credited with the expansion of health insurance coverage and reducing to a large extent the age-long financial barriers for employed adults in the state in accessing healthcare. Concurrently, a corresponding improvement was not seen in access to a personal physician which suggests that there may be other barriers. I not only looked at access to health insurance as an influence on the health seeking behavior of the research population; but also looked at other predisposing factors that may affect the health-seeking behavior and health services utilization of the study population. I used the following research questions to frame this study:

RQ1: How does access to health insurance affect the healthcare seeking behavior of a population?

H_1: The procurement of health insurance enhances access to healthcare.

H_2: Access to health insurance increases health services utilization.

H_3: Other formal healthcare options are available to those without health insurance.

RQ2. How does access to health insurance affect the preventive care seeking behavior of a population?

H_1: People with health insurance seek care timely and frequently.

H_2: People with health insurance seek medications or treatments at the first of a health challenge?

H_3: People with health insurance seek preventive care regularly?

Definitions of Theoretical Constructs

For this study, I used the theoretical construct of the behavioral model of health services use (BM). Healthcare utilization is the equilibrium or the breakeven point between health systems and the needs of patients in a professional health system (Babitsch, Gohl, & Lengerke, 2012). Health-seeking behavior is the extent to which an individual utilizes the services within a formal health system in the promotion of his or her overall well-being (Poortaghi et al., 2015). BM espouses that three factors influence health-seeking behavior and healthcare utilization. The factors are predisposing factors, enabling factors, and need factors (Babitsch et al., 2012). My goal for this study was to examine the extent access to health insurance as an enabling factor influence health-seeking behavior and healthcare utilization.

Definition of Terms

Community health insurance: A voluntary, health insurance scheme that is not for profit. Such a scheme is organized at the community level; members of a community are bounded by geographical proximity or through employment. The members pool resources to provide support for covering health expenditures" (Robyn, Fink, Sie, & Sauerborn, 2012).

Health: A complex term to define because the definition varies between cultures, generations, and individuals (Poortaghi et al., 2015). However, quoting the WHO's 1948 charter, Hyder and Morrow (2006) defined health as a state of complete physical, mental, and social well-being, rather than merely the absence of disease or infirmity.

Healthcare Financing: Defined mobilization and allocation of resources to finance health services including but not limited to physical infrastructure, human capital, equipment, supplies, and consumables for the successful delivery of health services (Babitsch et al., 2012).

Health Insurance: The pooling of financial resources through taxation, special levies, or deductions from salaries to finance health services for the people (Jacobs, Bigdeli, Pelt, Ir, Salze, & Criel, 2008).

Healthcare utilization: Defined as the point within the health systems in which the needs of patients overlap with the professional system (Babitsch et al., 2012).

Health-seeking behavior: Regarding the definition of health above is defined as a person's actions to the promotion of maximum well-being, recovery, and rehabilitation. Such actions may occur with or without a range of potential to real health concerns (Poortaghi et al., 2015).

Significance of the Study

This study contributes to the discussion on universal access to healthcare and the role of a community-based health insurance in improving such access; it provides some insight into the question of whether there is a causal effect between access to health insurance, access to healthcare, and health-seeking behavior of people. The study is important to healthcare policy makers and administrators, health insurance companies, corporate organizations, individuals, and social scientists interested in the issue of

universal access to healthcare especially as it affects the suburban and rural communities in under-developed and developing countries such as Nigeria.

The results of the study provide some evidence to corporate organizations that support community health insurance programs on the effectiveness of such programs. Finally, this study contributes to positive social change by providing explanations on the issue of inadequate access to healthcare. These explanations may galvanize the makers of policy, policy implementers, and the civil society members to take remedial actions to address the issue of universal access to healthcare and consequently the health of the population which may impact on the human development index of the population. The NHIS can benefit from the findings of this study. This benefit will arise because the findings relate to insurance coverage for citizens and residents in the informal sectors of the society who do not have access to employer-based health insurance. NHIS may be able to reappraise and reorganize its community-based social health insurance program (NHIS, 2016) to provide increased access to health insurance for a large number of people in the informal sector of the economy. There is no doubt that increased access to affordable health insurance as a facilitator to access to health services is a positive contribution to social change.

Assumptions and Limitations

I assumed that the participants who voluntarily participated in this research because of their enrollment in the community health insurance program did not bias the outcome of the investigation and that those community members not enrolled in the community health insurance program did not decline participation in the study. I assumed

that the questionnaires were completed truthfully by the study participants to the best of their knowledge and ability. I also assumed that the instruments used in the study were appropriate for the measurement of the designated study variables.

The study presents the common limitations of cross-sectional design because the outcomes were measured at a single point in time; therefore, making it impossible to establish causality. Also, there is memory bias due to the inability of the respondents to recall past activities accurately. The inability to fully explore the effects of sociodemographic and socioeconomic characteristics of the respondents on health care utilization was a limitation. The other limitation of the study is the funding of the healthcare facility where most of the study population access care. Participants in the Obio Community Health Insurance Scheme access care in government health facility, which is generously supported by the SPDC. The support of SPDC means that the financial contributions the government and the insurance participants and patrons who pay out-of-pocket are supplemented by SPDC. The financial support from SPDC may not be available to other health facilities that may be enrolled in similar community health insurance schemes and this impacts the generalization of the findings in this study.

Summary

Multiple researchers have looked at the challenges faced by low-income, underinsured, and uninsured population in accessing healthcare in low and middle-income countries (LMICs). Researchers have also looked into the increasing role that health insurance can play in enhancing access to healthcare in LMICs, especially those in Africa. The drive to increase access to healthcare through health insurance has resulted in

the increased focus on community health insurance schemes (De Allegri, Sauerborn, Kouyat, & Flessa, 2009; Donfouet, Makaudze, & Mahieu, 2011; Savitha & Kiran, 2013; Zhu, Zhu, & Liu, 2008). While these researchers suggested some level of causation, there was no definite linkage established between access to health insurance and health-seeking behavior and healthcare utilization; this is because there are many other barriers to equitable access, change in behavior, and change in healthcare utilization.

Chapter 2 is a review of the existing literature related to this study and how emerging research is suggesting an association between access to health insurance and health-seeking behavior and healthcare utilization. Chapter 3 is a description of the methodology used to study the research questions. This section will also include the use of regression analysis as a valid means to analyze the possibility of a relationship between access to health insurance and health-seeking behavior and healthcare utilization and a description of the sample population used, procedures used, ethical considerations given, measures, and analysis of the data. Chapter 4 is a report of the data and Chapter 5 is a summary and analysis.

Chapter 2: Literature Review

Introduction

The following literature review reinforces the need for continued research into the impact of health insurance on access to quality healthcare and health-seeking behavior. There has been an increasing demonstration of interest by social science researchers in the issue of equitable access to healthcare, especially in settings where some form of universal healthcare is operative, such as most of Western Europe and Canada. This interest is also high in climes where there is no universal healthcare but there is a safety net such as Medicaid and Medicare in the United States and how such access impacts on health-seeking behavior and healthcare utilization. However, the definition of access in those settings cannot be said to be the same with what is obtainable in most LMICs.

This difference is more pronounced in sub-Saharan Africa where there is inadequate public health infrastructure; and where facilities are available, they are poorly staffed and poorly equipped, thereby leading people to look for alternatives. Given the limited resources in LMICs, and the consequent inadequate funding of healthcare, the need to adopt some form of insurance schemes that will assist in the financing which in turn will improve access has gained some traction and popularity. Being a new concept in its infancy of adoption and implementation in the LMICs, it is important to continue to explore the relationship between health insurance, health access, health-seeking, and healthcare utilization.

The theoretical framework that I used for this dissertation was healthcare utilization when there is enhanced access, which is rooted in the Andersen's BM. The

crucial element of this theory is the facilitation of access to health insurance and how such access impacts on healthcare utilization in the research population. The theory has been applied in substantial number of healthcare utilization studies in numerous parts of the world. The increasing interest of social science researchers in the field of access to healthcare and health-seeking behavior has generated a considerable number of peer-reviewed articles in peer-reviewed journals with a few beginning to focus on sub-Saharan Africa.

I conducted the literature search digitally through the Walden University Library using the multiple databases search platform of Thoreau Multi-Database Search that enables one to search across many of the Walden Library databases simultaneously. The search terms used in the literature search included: *access to healthcare, health insurance, health finance, health-seeking behavior, Africa,* and *Nigeria.* The years of search covered 15 years prior to 2014; this extended period was due to the limited peer-reviewed literature available on the subject-matter as related to Nigeria. This chapter is a review of health-seeking behavior and the relationship with its enablers and barriers including, but not limited to culture, individual behavior, universal access, healthcare financing, and health insurance.

Culture, Behavior, and Health

Health seeking behavior is a sort of health behavior that is influenced by a variety of things including but not limited to culture, beliefs, perceptions, finance, and access (Scrimshaw, 2006). The impact of culture and perceptions of the beliefs and behaviors of people regarding health and sickness is substantial in many parts of the world

(Scrimshaw, 2006). In some cultures, the perceived effectiveness of traditional or alternative medicines, coupled with unfortunate inadequacies of Western medicine in some situations, has made some people use both sources of care at the same time (Scrimshaw, 2006). In the African setting, there is much reliance on alternative medicine, also called traditional medicine; it is therefore not uncommon to see built up health facilities abandoned in preference for traditional medicine, particularly among the rural population. In Nigeria for example, there is the challenge of the abandonment of health institutions while the traditional medicine practices flourish, leading to the late presentation of cases to the health facilities with consequent preventable fatalities (Abdulraheem & Parakoyi, 2009).

Nothing could best describe the impact of cultural beliefs on health seeking behavior like the HIV/AIDS epidemic in Africa. Issues such as ignorance, secrecy, denials, and economic conditions that turn young women into sex workers, affected the spread of the disease (Scrimshaw, 2006). Other concerns such as cultural beliefs like AIDs being a "White man's disease," a source of shame, a punishment for overindulgence of the body, caused many more victims to delay seeking care. The active workforce demographic was particularly affected by all these leaving a high burden of a population of orphans and vulnerable children that were cared for by grandparents who could barely care for themselves because of their old age (Scrimshaw, 2006).

In most LLMICs, there is no equitable access to primary healthcare due to structural and social barriers (Prach, Treveaven, Isiguzo, & Liu, 2015). A substantial number of the people in these countries access healthcare from informal and formal

private care providers that sometimes acts as casual suppliers (Prach et al., 2015). These healthcare providers include traditional healers, traditional birth attendants, patent medicine stores, private clinics, maternity homes, and hospitals (Prach et al., 2015).

In Nigeria, cultural beliefs and personal perceptions and experiences still influence how people seek care especially in cases of malaria, tuberculosis (TB), and childbirth. For example, Nigeria reached 99% coverage for Directly Observed Treatment Short Course (DOTS) in 2008 (Ukwaja, Alobu, Nweke, & Onyenwe, 2013). As of 2012, a study showed that more than 63% of 450 surveyed TB patients first visited a drug store at the first symptom of coughing (Ukwaja et al., 2013). The same study showed that 7.9% went to traditional healers, which means that 70.9% of these 450 patients first consulted a non-National TB Control Program service provider (Ukwaja et al., 2013). Robyn et al. (2011) opined that informal health seeking and self-treatment could account for the primary reason why people do not or delay seeking access to professional health services in traditional and modern settings (Robyn et al., 2011). The use of self-prescribed Western medications often results in suboptimal outcomes that create parasite strains that are drug-resistant in addition to adverse health effects that come from inappropriate dosages (Robyn et al., 2011).

Health Systems

Globally, the adequacy of the health system of any country contributes to the level of access its population has to healthcare, and generally, government plays a principal role in the design and management of the health system of a country. On the one hand, the proponents of the market-based system argue for less government involvement in the

plan and management of health systems (Mills & Ranson, 2006). On the other, the supporters of government involvement rest their arguments on market failures due to the influence of externalities (Mills & Ranson, 2006). The externalities, they argued, make predictions of market movements uncertain. These externalities include the impact of monopolistic tendencies of the market operators and the inadequacy of the market to produce public goods because they earn little or no profit (Mills & Ranson, 2006). In addition to market failure arguments, proponents of government involvement in the design and management of health systems often cite countries such as Canada and Britain (Mills & Ranson, 2006). The health systems of these two democracies are mostly managed by government, thereby ensuring that healthcare is equitable and accessible to all irrespective of economic status (Mills & Ranson, 2006).

The comparisons of the health systems prevalent in the industrialized nations such as United States of America, Germany, Britain, Canada, and Japan show some strong health systems despite the differences in the level of government involvement. Designing and managing a health system is very expensive, despite the enormous resources America commit to healthcare every year, it still holds the dubious distinction of being the only industrialized nation without a government-financed universal access to healthcare (Andersen & Davidson, 2007). The merits or demerits of these systems in these industrialized democracies seem to be influencing health system reforms in the LMICs. In some parts of Asia, South America, Middle East, and Africa, the health system reforms may not be sustainable because of the faulty premises upon which they are founded (Mills & Ranson, 2006).

In the LMICs, most of the population still live in rural communities where healthcare is mostly at the primary care level (WHO, 2016). Designing and maintaining a good health system at this level of service is very challenging given the fact that most of the terrains are difficult. Qualified healthcare workers need additional incentives to stay and work in rural areas (WHO, 2016). There is a dearth of basic infrastructure such as portable water and electricity in these jurisdictions (WHO, 2016). All these lead to weak health systems that are unable to respond appropriately to disease outbreaks such as was witnessed in the case of the Ebola virus in the West African countries of Guinea, Liberia, Sierra-Leone, and Nigeria (WHO, 2016).

The weak health systems of nonindustrialized nations are further documented by the WHO's 2013 Global Health Observatory data repository (WHO, 2016). The report showed Nigeria with an estimated population of about 182 million as not having an operational plan, policy, or strategy to reduce, among others, the use of alcohol, cancer, cardiovascular diseases, diabetes, respiratory diseases, physical inactivity, and unhealthy diet (WHO, 2016). Nigeria also has no data on health infrastructure, no evidence-based national guidelines nor protocols nor standards for the screening and management of a variety of major NCDs including, breast cancer, cervical cancer, colon cancer, diabetes testing, cholesterol measurement, and urine testing for albumin (WHO, 2016).

The poor state of health care delivery and administration Nigeria did occur overnight (Oluwabamide, 2013). It has been a gradual decline facilitated by some issues including continuous of migration of trained health care professionals to the developed countries, the inadequate number and distribution of functional health facilities that are

lopsided (Oluwabamide, 2013). Whereby most of the few operational health centers are in the urban areas, the majority of the populations are in jurisdictions that are rural where the facilities are not functional, which results in the high cost of health care where it is available (Oluwabamide, 2013).

Equitable Universal Access to Healthcare

Globally, universal access to healthcare is a major issue and a large number of people find themselves in financial ruin every year because of huge out-of-pocket expenses incurred on health services (Gustafsson-Wright, Janssens, & Van der Gaag, 2011). However, populations in low and middle income face more challenges due to a variety of barriers. These challenges include education, socio-economic status, and race in mixed communities such as Southern African countries. Others are insurance status and location, urban versus rural populations (Cleary & McIntyre 2010; Harris et al., 2011; Robyn et al., 2012).

Equitable access to healthcare is one issue that almost every country struggles with regarding structure and finance. Harris et al. (2011) explained equitable universal health coverage as being able to provide health services that cover everyone in a community without creating an unbearable financial burden on individuals and households. While some countries such as the United Kingdom and Canada seem to have overcome this challenge with the provision of universal national health insurance schemes that guarantees equitable access to primary care, the same countries still struggle with access at the secondary and tertiary care levels. However, many citizens of these countries complain that there are long waiting times for simple surgical procedures that a sound

ambulatory service can deal with; the delays sometimes result in serious health complications (Andersen & Davidson, 2007). In these countries, private referral services are available at very high costs and most patients are unable to afford them.

In other industrialized economies such as the United States, where there is no universal health insurance, access to care is somewhat limited to those with private insurance through employment. Government insurance is also available to the most vulnerable in the population (children and the elderly), which usually leaves a large pool of uninsured, including working adults who do not have access to primary health care. Referencing the National Survey of Substance Abuse Treatment Services of free substance abuse treatment, the Substance Abuse and Mental Health Services Administration (SAMHSA) reported that the average of uninsured persons aged between 18 and 64 who are full-time employees was more than 18.4 million (SAMHSA, 2010). Referencing the findings of Burstin et al. (1998), the Agency for Healthcare Research and Quality (Agency for Healthcare Research and Quality [AHRQ], 1999) reported that because of the lack of universal health insurance in the US, patients might have no follow-up care after an emergency procedure. Patients might also postpone seeking needed care when they lose or change insurance plans (AHRQ, 1999).

In LMICs, access to affordable, effectual, and needed healthcare is a major challenge to a majority of the population, thereby accounting for huge out-of-pocket expenses that impoverished most of the population especially the poor (Harris et al., 2011; Jacobs et al., 2008; Robyn et al., 2012). Even in countries where the constitution provides for free health care, equitable access to all remains a challenge. This challenge is

due to the inefficiencies in the allocation of resources within the health sector. Cleary and McIntyre (2010) reported that in 2008, South Africa, which has a constitutional provision for free healthcare to all its citizens, spent 7.4% of its GDP on healthcare; yet, there is a high distortion in the allocation of this resource within the health sector. The public sector that serves about 84% of the population accounts for 3.2% of GDP or 43.24 of total health care spending (Cleary & McIntyre 2010, Harris et al., 2011). The private sector that serves 16% of the population accounts for 3.2% of GDP or 43.24 of the total health care spending (Cleary & McIntyre 2010, Harris et al., 2011). The balance of the 1% of GDP or 13.52% of the total healthcare spending is spent by as insurance copays by the insured and as out-of-pocket payments for services and medications by a few uninsured persons of the population (Cleary & McIntyre 2010; Harris et al., 2011).

Financing Healthcare

Building and maintaining a good health system requires resources to, among other things, develop infrastructure. This infrastructure includes buildings, equipment, and furniture; develop human resource capacity, preservice training and in-service training. The infrastructure also includes the maintenance of an effective and efficient supply chain of medicines, laboratory reagents, supplies, and commodities; and the provision or facilitation of funding for the recurrent expenditure of the healthcare facilities. Healthcare financing is a system on its own that includes the generation, allocation, and utilization of resources for healthcare (Olakunle, 2012).

While the industrialized countries seem to have gotten these elements of healthcare financing right, most non-industrialized countries especially those in Africa are still struggling with them. Healthcare financing is a major challenge for Africa. Africa accounts for the highest disease burden in comparison with other regions of the world, but its per capita spending on healthcare is the lowest with 51% of the countries spending less than US$50 per person for health care (Sambo, Kirigia, & Ki-Zerbo, 2011). Most LMICs spend considerably less on health because wages are lower in these countries leading to low Gross Domestic Product (GDP). The inadequate spending on health leads to less qualified health personnel including doctors and nurses (Getzen, 2010). Most African countries rely on foreign donations to finance healthcare. In 2012, Nigeria, the most populous country in the region, contributed only 5% to the total funds for healthcare while the remaining 95% was donor-funded. Out of the 5% attributable to the country, the government only contributed 31% while 69% was by households (WHO, 2014). These challenges have become so topical leading weak health systems across the continent that has culminated into poor health indicators for the population compared to other continents such as Asia and Europe. Consequently, the African Union in its 15th Ordinary Session of Assembly held in Kampala, Uganda in 2010 held an Official Side Event on Health Financing in Africa for the purpose of identifying what is accounting for the continuous extremely low financing of healthcare in Africa.

The AU also wanted to know how healthcare financing can be improved, and advocated for increased investment in healthcare especially within the continuum of care for maternal, infant, and child health (Sambo et al., 2011). One of the major consensuses

on important actions that emerged from this AU dialogue is the need for a comprehensive health financing strategy by each country. The other components of the consensus from AU dialogue are the linkage of health finance strategy to national head counts, and national health sector strategic plan (Sambo et al., 2011). Unfortunately, instead of entirely focusing on what Africans can do for themselves to overcome these challenges, there was still a reference to donor countries to fulfill their commitments to Africa (Sambo et al., 2011).

The inefficiencies in resource allocation in the health sectors of many LLMICs have skewed the apportionment of the few resources to the urban health facilities. This lopsided resource divide is to the detriment of the facilities in the rural areas where the majority of the population reside causing a misalignment of government investments and subsidies (Onwujekwe, Hanson, & Uzochukwu, 2012). Corruption, ineptitude, and mismanagement have also affected the financing of the health sector in many LMICs especially in Sub-Sahara Africa. Over the years, the very few resources available for the health area in most of these countries have been poorly managed or outrightly misappropriated with resultant devastating effect on the sector. In Nigeria, the impact of corruption on the health services area has been devastating; this has resulted in poor performances in the management of national and subnational policies leading to poor healthcare infrastructure and service delivery systems and consequently less than desirable health outcomes for the population (Oluwabamide, 2013). Corruption has also affected most donor-funded health interventions especially in the public sector leading to ineffective programs. These programs include the Expanded Program on Immunization

(EPI), the elimination of polio campaign, eradication of malaria campaign, the diagnosis and treatment of TB, and the care and treatment of HIV/AIDS leading to a poor outcome for the targeted population (Oluwabamide, 2013).

Financing Health Through National or State Health Insurance

There is a wide disparity across the world in many countries including the industrialized nations on how they finance healthcare. Most of these countries except the United States of America (until recently) provide one form or the other of universal insurance for healthcare that guarantees access to basic healthcare to their populations (Getzen, 2010). Insurance is defined variously; however, the most common understanding is the pooling of risks of unpredictable loss that involves risk assessment and risk adjustments to determine the premium payable by subscribers (Barton, 2010). Insurance as a means of financing healthcare has become necessary because of the increasing cost of healthcare. This high cost is due to the advancement in technology and its deployment in health services; also, medical procedures have become very expensive (Getzen, 2010). However, while no one will be willing to do without treatment because of its cost, very few can afford to pay necessitating the need to pool resources inform of insurance and apply such resources to members of the pool when they need care irrespective of the cost (Getzen, 2010).

There is disparity among the industrialized countries in the financing of health insurance. Countries such as Germany and Japan use dedicated wage tax, while others including the UK, Italy, Sweden, and Taiwan depend mostly on general taxes (Getzen,

2010). At the same time, others including the United States and Australia rely on a combination of wage taxes, private insurance, and voluntary employer payments to finance their health care (Getzen, 2010). Although insurance is significant as a source of funding for the U.S. healthcare industry, this did not happen until World War II even though the insurance industry commenced more than 100 years earlier (Barton, 2010). The organization of funding notwithstanding, the industrialized countries provide some functional access to care for their population. Given this success in the industrialized economies, the concept of national universal health insurance has become very attractive to many LMICs.

Government financing of universal health care is not new in Africa, most African countries upon obtaining independence from their colonial masters introduced free healthcare services. In Ghana and Sudan like many African countries, at independence, free healthcare was provided through taxes until the 1970s when it became unsustainable due to the economic downturn (Blanchet, Fink, & Osei-Akoto 2012, Getzen 2010). The Structural Adjustment Program (SAP) of the International Monetary Fund (IMF) introduced in most Africa countries in the 1980s further encouraged government disinvestment in health care (Blanchet et al., 2012). SAP substantially increased user fees for healthcare in Ghana leading to limited and deficient access to health for most of the populations that are poor (Blanchet et al., 2012). This was also the case in Nigeria, Sudan, and many more African countries. This situation persisted until the 1990s when there was a renewed call for reforms in healthcare financing in Africa including the abolishment of the use fees and many African countries adopting the concept of national

health insurance (Blanchet et al., 2012; Ibitoye et al., 2008). In 1999, Nigeria established its NHIS while Ghana did the same in 2003 (Blanchet et al. 2012; Ibitoye et al. 2008).

The resources from the NHIS have supplemented government spending on healthcare by increasing the funds available for the development and maintenance of healthcare infrastructure. Garba and Ejembi (2015) reported that in Zaria, Nigeria, private healthcare facilities enrolled in the scheme saw about 300% increase in their financial resources. Public institutions saw an increase of about 261%, which translated into higher investments in infrastructure including physical facilities, human capital, and laboratory diagnostic capacity (Garba & Ejembi, 2015). One of the effects of health insurance on the financing of healthcare in the LMICs is the efficient use of resources. According to Mohammed et al. (2013), many public health facilities participating in the schemes experienced additional financial autonomy that promotes self-regulation and competition, which promotes the efficient use of resources while improving the quality of basic amenities and care provided.

The Impact of the Nigerian Economic and Political Environment on the Financing and Access to Healthcare Services

Nigeria is a three-tier federation of 36 state governments, 774 local governments, and a federal government. The three tiers culminate in a total of 811 political and administrative jurisdictions (Embassy of the Federal Republic of Nigeria USA, 2017). Healthcare services in Nigeria are organized and managed by all the three tiers of government. At the federal level, health services are regulated and administered by the Federal Ministry of Health (FMOH), at the state level, it is the State Ministry of Health

(SMOH), and at the local level, it is the Local Government Health Department (LGHD) (Olakunle, 2012). Historically, the federal government provides tertiary or referral healthcare while the state governments provide secondary healthcare, and the local governments provide primary health care (Olakunle, 2012). However, lately, the state governments have begun to make in-roads into tertiary healthcare through their state university teaching hospitals while the federal government is also making in-roads into the primary healthcare through the National Primary Health Care Development Agency (NPHCDA). In addition to the public healthcare facilities, these jurisdictions also have oversight over healthcare institutions that are private, religious, nongovernment organizations (NGOs), community-based organizations (CBOs), and traditional in their jurisdictions (Olakunle, 2012). These institutions are oversighted through licensing, quality assessments, and quality assurance thereby creating a very complex organization of healthcare services in the country (Olakunle, 2012).

The complexity of the organization of healthcare services in Nigeria also reflects in the financing of healthcare services. The funding is done through a variety of financial sources described by Uzochukwu et al. (2012) as pooled and unpooled funding sources. The grouped sources include budgetary allocations to health services by each of the tiers of the administrative jurisdictions, special levies and taxes, and inflows from donors (Uzochukwu et al., 2012). The sources not pooled include fee for service payments, which include out of pocket payments, insurance payments, and other expenses incurred on health products (Uzochukwu et al., 2012). Historically, healthcare services have been largely financed by private funds; according to Ejughemre (2014), budgetary allocation to

health services by all the three tiers of jurisdictions has been little because of the constraints of limited fiscal space and scant domestic resource mobilization capacity. The sparse public financing of healthcare services culminates into over 70% of total health expenditure (THE) being funded by resources from unpooled sources (Uzochukwu et al., 2012). This limited public funding of healthcare services has created a huge burden on the majority of the vulnerable members of the population especially the women and children thereby limiting access to quality healthcare (Usman, Akande, Asekun-Olarinmoye, & Usman, 2013).

Health Insurance and Healthcare Utilization

While most people in the LMICs believed that the NHIS would revolutionize the healthcare industry in their countries by promoting access to quality healthcare. Many years into the launching and implementation of these insurance schemes, access to quality healthcare improved in some sectors but overall, it remains inadequate for a variety of reasons. In Ghana, the reduction or elimination of user fees increased access, and healthcare utilization among women enrolled in the NHIS (Blanchet et al., 2012). Blanchet et al. (2012) reported that among women who participated in their study, there were differences in utilization of services between those enrolled in the NHIS and those not enrolled. While 14.7% of those not enrolled had a general examination in the space of 12 months, 20.7% of those enrolled did the same within the same time-space (Blanchet et al., 2012). While 7.5% of the women not enrolled in NHIS had a breast examination in a 12 months period, 9.3% of those enrolled had a breast scrutiny in the same time space (Blanchet et al., 2012). In seeking formal care when sick, 75.5% of those not enrolled in

NHIS did while it was 90.5% of those enrolled (Blanchet et al., 2012). For hospital visitation, it was 50.2% of those not enrolled as against 76.3% of those enrolled; and for overnight hospitalization, 7.4% of those not enrolled in NHIS did while it was 12.7% of those enrolled (Blanchet et al., 2012). The availability of health insurance eliminates the hitherto financial barriers imposed by the fee-for-service system in operation before the introduction of health insurance thereby improving access and quality of care (Chomi, Mujinja, Enemark, Hansen, & Kiwara, 2014).

While health insurance has increased access to healthcare, there are some major issues with the implementation of the NHIS. These implementation challenges include the phasing of the implementation, little awareness in the population, and the general knowledge of the standard practice of insurance practitioners and healthcare providers. In Nigeria, the NHIS commenced with the enrollment of those in the formal sector with a focus on those working in government establishments, banks, major oil companies, and other organized private sector organizations. The narrow focus on the formal sectors severely limited awareness in the general population on the availability, functionality, and importance of health insurance for access to healthcare services (Graba & Ejembi 2015; Ibitoye & Adeleke 2008, Lawal, Iliyasu, & Daso 2012). Another issue is the administrative inefficiencies. These inefficiencies include patient waiting time, upward referral efficiency, and reimbursement of healthcare providers for services rendered to patients enrolled in the insurance scheme. The deficiency in the NHIS implementation requires an on-going and prompt oversight by regulators to improve the operations of the industry players (Mohammed, Souares, Bermejo, Sauerborn, & Dong, 2014). The

variability of coverage caused by the fragmentation of policies (public insurance, private insurance, community insurance, etc.) affects the level of access and the quality of healthcare services received by enrollees due to the tier system of health service. The type of insurance coupled with the tiered system of care affect the standardization of benefit packages and the perception of quality of care received by the insurance enrollees (Chomi et al., 2014).

Health-Seeking Behavior

Health-seeking behavior is a broad concept with two keywords namely health and behavior both of which also have varying definitions. Health has different meanings to different people depending on their cultures, age, and life experiences (Poortaghi et al., 2015). The societal, economic, social, and legal environment affects the definition of health. Quoting WHO, Poortaghi et al. (2015) defined health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Consistent with these definitions of health and behavior, many authors have defined health-seeking behavior in varying forms. It is an individual's conduct towards the promotion of total wellness in health or sickness (Poortaghi et al., 2015). Actions including taking healthy food options, having exercise, participating in programs that promote health education and prevention awareness (Maneze et al., 2015). The art of seeking or utilizing health care system or the sequence of remedial actions taken to rectify an illness (Kamaruzaman, Muthupalaniappen, & Pasi 2013).

The consistent theme in these definitions is conscious effort to seek wellness as either the prevention of infirmity or curative for an illness that is already onset that leads

to the inquiry about what drives the concept of health-seeking behavior. As a concept, the characteristics or attributes of health-seeking behavior are “interactional, processing, intellectual, active, decision-making based and measurable” (Poortaghi et al., 2015). The interactional and processing attribute is the aspect of health-seeking behavior that helps one to investigate the extent to which a particular population interacts with the health system (Poortaghi et al., 2015). The interactional and processing attribute helps to look at health-seeking behavior as a social process that continues to evolve throughout the sequence of disease management from the onset of symptoms to the access and use of specific services (Poortaghi et al., 2015). The intellectual dimension is about the desire of people to stay healthy and how the environment affects their health. The active and decision-making related to the quest for the most current information on healthy living, the environment, any other information that promotes well-being, and the measurable dimension is the ability to measure health-seeking behavior (Poortaghi et al., 2015). According to Poortaghi et al. (2015), the consequences of these attributes of health-seeking behavior include health promotion, the risk of disease reduction, predicting the future burden of illness, early diagnosis, effective treatment and complication control, design, and implementation of services that are effectual (Poortaghi et al., 2015).

Health-seeking behavior is facilitated or hindered by some factors that could be individual, cultural, or environmental (Maneze, DiGiacomo, Salamonson, Descallar, & Davidson, 2015). Individual factors include personal resources such as finance, time, knowledge, information, and social support network. Cultural factors include cultural beliefs, faith, traditions, and practices (Maneze et al., 2015). Environmental factors

include access to health services, climate, and the access to unhealthy food options (Maneze et al., 2015). Each of these facilitating and hindrance factors can be a facilitator or a barrier to health seeking behavior. Maneze et al. (2015) reported that among Filipino migrants in Australia, individual factors such as having information and knowledge about healthy living including healthy food options, exercises, and robust social network were good motivators for positive health-seeking behavior (Maneze et al., 2015).

Concurrently, individual factors such as lack of finance, lack of time, inadequate social support, and pressure from work, unemployment, and inability to communicate in the English language were all barriers to the migrants (Maneze et al., 2015). Daily hassles and stress due to lack of resources negatively impact on the health-seeking behavior of poor or low-income populations (Bourne, 2009; Jacob et al., 2014). The empowerment of women with health information, financial resources, and decision-making in Bangladesh positively impacts on their health-seeking behavior (Mainuddin, Begum, Rawal, Islam, & Islam, 2015).

Cultural values and ethnic affiliations can facilitate and hinder health-seeking behavior in Filipino migrants in Australia; they only negatively impact on minority youths in the USA from seeking professional help for mental health challenges (Maneze et al., 2015; Nguyen et al., 2015). Environmental factors such as access to healthcare positively impact the health-seeking behavior of migrants in Canada while unfamiliarity with the health care system in Australia and the availability of very few Filipino doctors negatively impact on the health-seeking behavior of Filipino migrants in Australia (Mabaya & Ray 2014, Maneze et al., 2015).

Burlaka, Churakova, Aavik, Staller, and Delva (2014) reported that cultural factors of stigma and embarrassment are considerable barriers to young people seeking for health. This barrier is irrespective of whether the services were free or not; this affected college students with mental health challenges in Ukraine and rural young adolescents in North Florida in the USA (Burlaka et al., 2014; Dodd et al., 2014). In a study of caregivers of children with Pneumonia in rural Malaysia, Kamaruzaman, Muthupalaniappen, and Pasi (2013) posited that predisposing factors, enabling factors, need factors, and treatment action influence the health-seeking behavior of the caregivers. These factors culminate in their practice of self-care, seeking and relying on health advice from health practitioners before finally opting for health facility-based care (Kamaruzaman et al., 2013).

Community Health Insurance and Health-Seeking Behavior

Health insurance improves access to healthcare, and lack of it can increase the impact of health shocks on those without health insurance (Gustafsson-Wright, Janssens, & van der Gaag, 2011). There is a quest to expand healthcare financing and enhance access to care through health insurance. The search for enhanced healthcare financing has culminated into more focus on community health insurance schemes for rural and poor populations such as the Pinggu community in Beijing, China (Zhu et al., 2008) with effect on enhanced access to healthcare (Donfouet, Makaudze, & Mahieu, 2011). The high demand for community health insurance as a means of facilitating access to healthcare is not without challenges. In Sub-Sahara Africa; the challenges to community health insurance include the ability and willingness to pay the insurance premiums

(Donfouet et al., 2011), the issue of financial cross-subsidy that takes resources from the poorest to the less poor in the pool of subscribers (Jacobs et al., 2008). The challenges also include inadequate and sometimes ambiguous legal and regulatory framework that encourages sharp practices including undefined benefits, low enrollment by participants that threatens the viability and sustainability of such programs (Allegri, Sauerborn, Kouyate, & Flessa, 2009). Other challenges include inadequate management capacity that undermines sustainability and growth, and inability to control costs due to fraud, over-utilization of services, and excessive administrative overhead costs (Allegri et al., 2009).

While researchers showed that health insurance enhances access to healthcare, a few researchers have looked at the effect on health seeking behavior, and where there are, there was no causal relationship between health insurance and health seeking behavior. Robyn et al. (2012) found some positive association between access to insurance and care-seeking. In the same study, they could not reject the null hypothesis that access to health insurance does not affect health seeking behavior because of other challenges (Robyn et al., 2012). Robyn et al. argued that the causality found was due to the cross-sectional association between enrollment and behavior and that these associations were mostly due to unobservable differences in the health status of each and his or her health-seeking behavior. When the researchers control these differences, there is little or no difference in health-seeking behavior attributable to the community health-insurance scheme enrolment (Robyn et al., 2012).

The argument of Robyn et al. (2012) in the Burkina Faso study seems to contradict the reporting of Blanchard-Horan (2007). In Blanchard-Horan, the finding is

that participants in health microinsurance scheme in rural Uganda were more likely to seek care in a professional healthcare setting than those not enrolled in the program. The care in a professional facility reduces hospital stay and the cost of catastrophic health occurrences; however, the significant barriers to the participants in the study were the ability to pay the insurance premium and transportation to the health facility (Blanchard-Horan, 2007).

Similarities or Differences in Potential Findings Between the United States and Nigeria

The issue of access to effective and affordable healthcare is a global issue that affects both developed and under-developed economies; promoting such adequate and affordable access through the access to health insurance is a rational path. However, the majority of the population in Nigeria is used to public health facilities. Most of the facilities do not have adequate equipment or staffing to provide the required services. The potential findings of this study may mirror or differ from the conclusions of similar studies in the United States of America.

A review of a few studies conducted in the USA on this subject reveals a variety of findings. A research conducted on the predictors of delayed or forgone needed health care for families with children concluded that care is delayed or forgone due to healthcare-related financial burden (Wisk & Witt, 2012). The findings in this study are similar to the findings in another study. Jacob et al. (2014) looked at the daily hassles' roles in health-seeking behavior among low-income populations in the USA and found 76.5% of the respondents listing not having enough money as one of the hassles. The

findings and conclusions by Wisk & Witt (2012) and Jacob et al. (2014) presupposed that access to an affordable health insurance will remove the financial burden and consequently reduce or eliminate the delayed or forgone care. However, Beech et al. (2017) looked at the effect of a free office visit to a primary care physician (PCP) on primary care-seeking behavior and concluded that enrollees in the study were no more likely than others in other jurisdictions to visit a PCP. According to Beech et al. (2017), removing the cost barrier alone may be insufficient to change primary care-seeking behavior (Beech et al., 2017). Burstin, Swartz, and O'Neil (1998) looked at the effect of change of health insurance on access to care found that 54% and 35% of the patients who lost or changed insurance respectively had no follow-up care after emergency treatment compared with 30% of patients without disruption in insurance coverage (Burstin et al., 1998). The finding in loss or changed insurance is in contrast to the finding in another study that looked at the use of health care in the first year of loss among those who lost health insurance. The use of health care increases over time during the first year (Gresenz, Rogowski, & Escarce, 2008). Freeman, Kadiyala, Bell, and Martin (2008) researched the causal effect of health insurance on utilization in adults concluded differently. The finding linked higher copayments to fewer visits to physicians, better health outcomes to having health insurance; however, there was no overuse of care (Freeman et al., 2008).

Summary

In Nigeria, the few studies available do not have conclusive findings on the causal effect of health insurance on health care-seeking behavior and health care utilization.

However, the studies noted the potential for health insurance to improve care-seeking behavior and health care utilization and they emphasized the barriers to health insurance such as lack of awareness, finance, and education (Ibiwoye & Adeleke, 2008; Ilesanmi, Adebiyi, & Fatiregun, 2014).

Chapter 3: Research Method

Introduction

This chapter of the dissertation includes a description of the design, the sample, the measurement instrument, the data analysis, and the ethical considerations of the study. The overview of the research's design will include the reason why this particular type of research design was appropriate for the study. The sample section will include the characteristics and size of the sample while the measurement instruments section will provide a description of the survey tool. This chapter also includes an explanation of the process of data collection and analysis.

Purpose of the Study

The purpose of this research was to investigate the relationship between access to health insurance and health-seeking behavior in a suburban population. The lack of access to health insurance impacts on the access to quality health care (Ogunlesi, Runsewe-Abiodun, & Olanrewaju, 2010; Onwujekwe et al., 2008). Health insurance as a healthcare financing option improves access to health care while the lack of it can have an increased measure of the impact of health shocks on those without it (Gustafsson-Wright et al., 2011). I explored the potential relationship between the stated impacts of health insurance on healthcare-seeking behavior, especially as it relates to the facilitation of community health insurance for the study population by SPDC through HCI.

Design and Approach of the Research

I evaluated the relationship between the access to health insurance provided through a community health insurance program, and the way and rate the study participants seek and utilize health care services. I used a quantitative correlational approach, which I used to examine the influence of the research subjects' access or non-access to health insurance on their health-seeking behavior especially as it relates to preventive and curative healthcare services.

The use of the cross-sectional approach was appropriate for this study because the study participants were retrospectively reporting their experiences with health insurance access and their health services usage. There was no random assignment of the participants to any particular group to manipulate the access to health insurance but their scores on the HCAUS survey instrument determined the extent to which the availability of health insurance impacted on their use of health services.

Health insurance is a relatively new aspect of financing healthcare in Africa (Blanchet et al., 2012; Ibitoye et al., 2008). There is a reported increased financial resource for the development and maintenance of healthcare infrastructure due to the implementation of health insurance Nigeria (Garba & Ejembi, 2015). This increase is in both public and private health facilities participating in the National Health Insurance Scheme (Garba & Ejembi, 2015). An increase in the use of both preventive and curative healthcare services due to access to health insurance has also been reported which, suggests that health insurance improves access, quality of care, and health care utilization (Blanchet et al., 2012; Chomi et al., 2014). Researchers have established some

relationship between the access to health insurance and health-seeking behavior (Robyn et al., 2012; Blanchard-Horan, 2007 & Jacob et al., 2014). However, there are reports of significant challenges in the African settings regarding the administration of the health insurance schemes that calls for more studies (Chomi et al. 2014; Graba & Ejembi, 2015; Ibitoye & Adeleke, 2008; Lawal, Iliyasu, & Daso, 2012; Mohammed et al., 2014).

Research Setting and Sample

Participants

This study's participants were a convenient-stratified sample of the residents of the Obio Community covering Oginigba, Rumuezeolu, Rumuomasi, and Rumuobiokani villages all in the Obio Akpor Local Government Area of Rivers State, Nigeria. The Rivers State Ministry of Health and SPDC gave me permission to use the Obio Akpor community and Obio Cottage Hospital respectively for the study. The reasons for the selection of the study participants include: (a) the population is accessible; (b) they meet the age requirement for informed consent; (c) they have the requisite educational qualification to be able to read, understand, and complete the questionnaire; (d) there is a presumption that they have experienced healthcare needs events requiring the utilization of health services; and (e) they are residents in the community.

The study sample was stratified to include all the characteristics of the population such as age, education, occupation, employment status, income gender, and ethnicity. The stratification of the sample was appropriate because it meant that specific characteristics of individuals such as gender were represented in the sample, and the

sample reflects the real proportion of people with certain characteristics in the population (Creswell, 2009).

Sampling

The purpose of the study was to provide empirical explanations of the relationship between health insurance and healthcare-seeking behavior. The study sample included all the characteristics of the population including: age, education, occupation, employment status, income, gender, and ethnicity; stratified sampling was adopted. The study population was stratified before the study sample was selected. Creswell (2009), referencing Fowler (2002), stated that "stratification means that specific characteristics of individuals (e.g. both females and males) are represented in the sample and the sample reflects the true proportion in the population of individuals with certain characteristics" (p.148). In order to enhance the generalization of findings, the stratified sample was also randomized. The housing units in this population are in clusters identifiable by income and socioeconomic status, these clusters are identified prior to the sampling to ensure fair representation of all the characteristics of the study population.

Sample Drawing and Sample Size Procedures

The study population was 464,789 (National Population Commission [NPC], 2016). The study population comprised clusters of houses estimated to be about 10,000. The sample was drawn randomly from the stratified population in the identified clusters and boundaries. For the clusters, I defined the study population boundaries, then divided the sample area into groups, serially numbered the clusters, and subsequently selected the sample clusters representative of the characteristics of the population. Subsequently, the

housing units in the chosen groups are listed and numbered and I drew a systematic random sample from the list of the numbered units.

Based on the clusters identified for the sampling and the study population of 464,789 residents in the LGA (NPC, 2016), the population of the selected groups is about 10,000. Assuming the sample population size of 10,000, a 95% Confidence Level, and a 5.87% Margin of Error; using the sample size calculator in the Creative Research Systems survey software (The Survey System, 2018), the estimated sample size (*n*) is computed to be 270. Using the same assumptions, the sample size calculator of the Australian Bureau of Statistics computed the estimated sample size as 271. Therefore, the sample size for this survey was 270.

Informed Consent Procedures

Every study participant received and executed the informed consent form. The form included the background information on the study, the participation procedures and eligibility, an explanation on confidentiality, the voluntariness of the research with the option to opt out, and a discussion of ethical concerns all written in fourth grade English.

Measurement Instrument

The measurement instrument for this study is titled Health Care Access and Utilization Survey (HCAUS); it was originated from Health Care Access Survey (HCAS) (Huttlinger, Schaller-Ayers, & Lawson, 2004) to suit the local measurements such as currency of the study population. The HCAS originated from the RHCAS developed and used by Schaller-Ayers et al. (2001) in their study of health care access in rural Appalachia and presented at the conference of Sigma Theta Tau International of The

Honor Society of Nursing. The RHCAS was developed and pretested in three stages with Stage 1 involving the use of focus groups to gain an understanding of the health and healthcare issues of the study population. In Stage 2, the instrument developed in Stage 1 was pilot tested, and in Stage 3, the instrument pilot tested in Stage 2 was used to do a descriptive study of the study population (Schaller-Ayers, 2001).

While the HCAS instrument has not been applied in any African or Nigeria-based study, it was suitable for this study because of its effective use in rural populations in the United States with similar characteristics with the population in Nigeria. The study population of Huttlinger et al.'s (2004) study of health care in Appalachia included demographic characteristics of a low level of education: 34.7% of adults over the age of 25 did not have a high school diploma. About 20.4% of the study population was jobless, on welfare and disability, uninsured and were not being seen by a primary care provider The community was also economically depressed (Huttlinger et al., 2004).

In another study in which the instrument was used, the geographical locations of the research were two rural Appalachian communities. One was Wise in Virginia, and the other was the Mountain City in Tennessee. The two communities are rural and isolated, with a high level of poverty, with people living at or below the poverty rate. Ninety-six percent of respondents in the study described the quality of life as poor because of lack access to health insurance, resulting in myriad health conditions. These health challenges include hypertension, loss of many teeth, mental health problems, diabetes, asthma, arthritis, obesity, and back problems (Huttlinger et al., 2004). All of these study populations and geographical locations in which the HCAS instrument was used

successfully have similar demographic characteristics with many suburban and rural communities in Nigeria, including the venue of the study population of this study. This similarity made the adaptation of the HCAS for this study appropriate.

The HCAUS measurement instrument is the same as the HCAS but I slightly modified it to the local study population for better comprehension. There was no translation required because the general literacy level of the geographical location of the research population is almost the same the one for which the HCAS instrument was originally designed and tested. I modified some of the questions and excluded some for appropriateness in Nigeria.

The HCAS instrument has five sections. Section 1 records the household demographics that includes the place of residence of the participant, including the gender, age, marital status, race, employment status, education level of each member of the household, household income level, and disease prevalence. Section 2 collects data on access to health insurance such possession of health insurance by members of the household, type of health insurance, and extent of coverage of other health services, prescription, dental, and vision. Section 3 covers information on the source of healthcare and health seeking behavior and includes access to primary care provider, type of provider, regularity of visit to the provider, and access to referral services. Section 4 collects data on access and level of satisfaction including waiting time for appointment and service, and availability of service when needed. Section 5 covers data on the health behaviors of participants such health incidence prevention such as immunization shots, use of tobacco, use of alcohol, physical activity, the challenges of lack of health

insurance, and the challenges of the current health insurance (Huttlinger et al., 2004). All these are in the HCAUS with few modifications. The differences between HCAS and HCAUS are in the two sections of the survey instruments:

1. In the household information section, the city and county in HCAS are replaced with town and village. The jurisdictions covered in HCAS are 16 (Bland, Bristol, Buchanan, Carroll, Dickerson, Galax, Grayson, Lee, Norton, Russell, Scott, Smyth, Tazewell, Washington, Wise, and Wythe) while those covered in HCAUS are four (Oginigba, Rumuezeolu, Rumuomasi, and Rumuobiokani). In HCAS, the education at precollege level is measured in grades while in HCAUS it is measured in primary, junior secondary school (JSS) and senior secondary school (SSS) levels. Household income is measured in United States Dollars ($) in the HCAS while it is measured in Nigerian Naira (N) in the HCAUS. In the HCAUS, malaria and tuberculosis are added to the health problems and illnesses; both are not in the HCAS.
2. In the health insurance section, types of health insurance in the HCAS are Medicare, Medicaid, Employer sponsored, Champus, Blue Cross/Blue Shield, and Commonwealth Children's Health Insurance Program (CMSIT/FAMIS). In HCAUS, the types of health insurance are OBIO, NHIS, employer sponsored, Other State-sponsored, and Community Health Insurance Program (CHIP).

A copy of the HCAS instrument is included as Appendix C while the copy of HCAUS is Appendix B. A copy of the HCAS was obtained directly from Huttlinger via e-mail. Huttlinger granted permission for the adaptation of the instrument to the HCAUS email. The communication between myself and Huttlinger are in Appendix E. The HCAUS is an appropriate measurement instrument for this study because it adequately collects data that facilitates the exploration of healthcare access especially as it relates to health insurance, healthcare utilization, and health seeking behavior.

Analysis

The research design for this study was a correlational design that used linear regression for analysis. In this study, the measurement instruments used for measuring of the variables enables the analysis of the data using regression analysis. The following are the research questions and hypothesis to be reviewed.

RQ1: How does access to health insurance affect the healthcare seeking behavior of a population?

H_1: The procurement of health insurance enhances access to healthcare.

H_2: Access to health insurance increases health services utilization.

H_3: Other formal healthcare options are available to those without health insurance.

RQ2. How does access to health insurance affect the preventive care seeking behavior of a population?

H_1: People with health insurance seek care timely and frequently.

H_2: People with health insurance seek medications or treatments at the first of a health challenge?

H_3: People with health insurance seek preventive care regularly?

The scoring in the measurement instrument was hand scored and I used the Statistical Package for Social Sciences (SPSS) version 24 for the analysis of the data. Each sectional score on the HCAUS had a separate linear regression run with gender and access to health insurance treated as possible confounders in the regression model. I used Bivariate Logistics Regression (BLR) to evaluate the possibility of significant differences in access to healthcare and healthcare utilization between participants with health insurance and those without health insurance.

Using descriptive statistics, I included a graph to highlight the level of health care utilization between participants with health insurance and those without health insurance; I also used the graph to depict the health care seeking behavior of participants especially as it affects preventive care.

Test Validity and Reliability

The validity and reliability of RHCAS were tested in the pilot testing with 100 randomly selected participants in Stage 2 while 3,922 individuals between the ages of 20 and 95 were randomly selected in Stage 3. The following were the instrument's Cronbach's alpha; in the pilot study, it was .86 while it was .72 and .96 in the different subscales (Schaller-Ayers, 2002). These validity and reliability apply to both the HCAS and HCAUS instruments since they are both adaptations from the RHCAS.

Ethical Considerations

The nature of this study involved the collection of personal data of the participants; therefore, great care is taken on the possible effects of the study on the study participants. To mitigate these possible effects and ensure that all participants are well informed, each participant will receive an informed consent form (Appendix D). The consent form discusses the procedures for participating in the study, the associated risks and benefits of participation, and how to contact me and my adviser on clarifications and individual questions on the study.

The informed consent states the confidentiality of all the records of the research with only the researcher having access to them. I provided adequate information to all potential participants on the voluntary nature of their participation and the fact that they can withdraw from the study at any time without any consequence. For record purposes, I received operative informed consent when a signed informed consent form that signifies the understanding and agreement of the participant on the study conditions has been received by me. The data collected from the study and the sources of data are well protected in secured filing cabinets and password protected computers.

Chapter 4: Results

Introduction

The purpose of the study was to obtain an understanding of how access to health insurance affects the health-seeking behavior of a population in a resource-limited setting. There were two research questions and six directional hypotheses tested. This chapter is a summary of these analyses and a description of the participants surveyed in this study.

Response Rate/Completeness of Data

Over a period of 4 weeks in the winter of 2019, a total of 270 respondents were recruited from four communities with a 100% response rate after due written informed consent were granted by participants.

Study Location Characteristics of Participants

The participants in this study were from four clusters villages in Obio Community covering Oginigba, Rumuezeolu, Rumuomasi, and Rumuobiokani, all in the Obio Akpor Local Government Area of Rivers State in the following quota, namely: Oginigba, 24.81% (67), Rumuezeolu, 24.81% (67), Rumuomasi, 25.19% (68) and Rumuobiokani, 25.19% (68) as shown in Table 1.

Table 1

Study Location Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
Location of study		
Oginigba	67	24.81
Rumuezeolu	67	24.81
Rumuomasi	68	25.19
Rumuobiokani	68	25.19

Sociodemographic Characteristics of Participants

A total of 270 participants were recruited for the study, with 27.78% (75) living in a household with one to two persons, 33.33% (90) with three to four persons, 30.0% (81) with five to six persons and 8.89% (24) with seven persons and above, with number of persons living in the respondents home ranging from one to 11 and a mean (SD) of 3.89 (2.0).

The study participant's minimum age was 18 years while the highest was 85 years with a mean age of 38.55 ± 12.51 years. Those within the age range 30–39 years had the highest proportion of, 32.22% (87), followed by those within the age range 40-49 years, 27.04% (73), and 18-29 years, 24.07% (65). The least were those within the age range 60-69 years, 5.93% (16) and those greater or equal to 70 years, 1.48% (four). The study participants have a total of 122 men with a proportion of 45.19% and 148 women with a proportion of 54.81%, with a male/female ratio of 0.82:1 as shown in Table 2.

Table 2

Household Size, Age, and Gender Sociodemographic Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
Total number of people living in your home		
1-2	75	27.78
3-4	90	33.33
5-6	81	30.00
≥7	24	8.89
Mean	*3.89 ± 2.00*	
Age Range		
18-29	65	24.07
30-39	87	32.22
40-49	73	27.04
50-59	25	9.26
60-69	16	5.93
≥70	4	1.48
Mean	*38.55 ± 12.51 years*	
Range (Min, Max)	*(18, 85) years*	
Sex		
Male	122	45.19
Female	148	54.81
M/F Ratio	*0.82:1*	

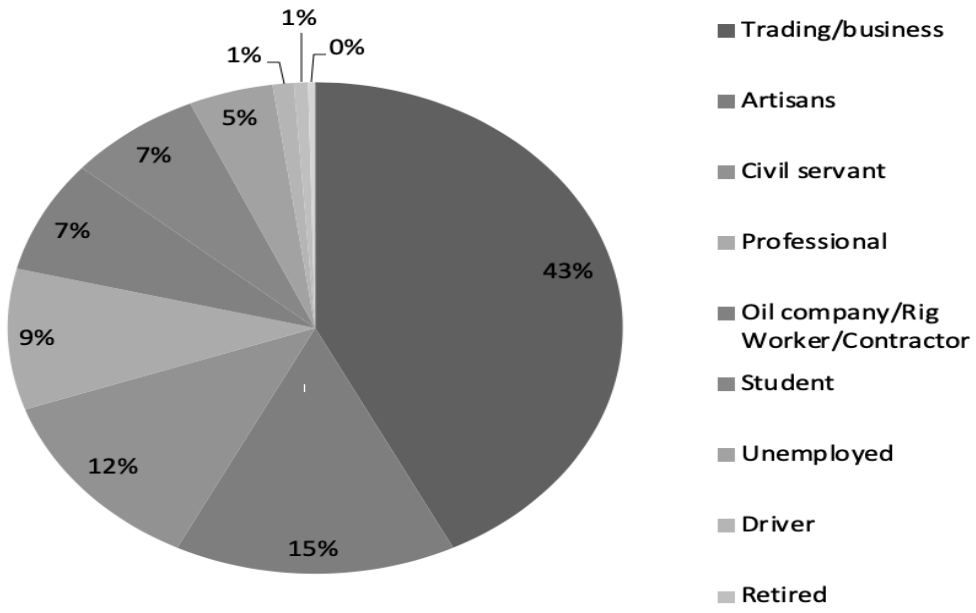
In the study, over half of the respondents were married, 62.59% (169), followed by those that were single, 30.74% (83), and the widowed were the least at 1.48% (four). Participant's with tertiary (college) education were highest with a proportional value of 50.37% (136), followed by those with secondary (high school) education, 39.63% (107) and primary (elementary) education, 8.15% (22) as shown in Table 3.

Table 3

Marital Status and Level of Education Sociodemographic Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
Marital Status		
Married	169	62.59
Single	83	30.74
Divorced/separated	8	2.96
Living with partner	6	2.22
Widowed	4	1.48
Educational Level		
None	5	1.85
Primary (Elementary)	22	8.15
Secondary (High School)	107	39.63
Tertiary (College)	136	50.37

Most of the respondents indicated that been in trading/business, 43% (115) was their main occupation, followed by artisans, 15% (40), been a civil servant, 12% (33) and as a professional, 9% (25) as shown in Figure 1.



Professionals= Lawyer, Doctor, Accountant, Banker, Geologist, Surveyor, Engineer
Artisans= Welders, Carpenters, Painters, Fridge-Repairer, Saw-miller, Tinker. Plumber

Figure 1. Population Distribution by the Main Occupation.

Household Characteristics of Participants

Adding all the number of persons living in the respondents homes, the ages ranged from 1 month to 82 years, with mean (SD) age of 24.16 (16.14) years and those ≤9 years, 22.13% (232), 10-19, 20.99% (220), and 20-29 years, 21.37% (224). Most of them, 55.68% (583) at the time of the research were Males, Single, 66.32% (695), and were of Rivers, 40.36% (423), Imo, 20.99% (220) and Akwa-Ibom, 20.42% (214) origins as shown in Table 4.

Table 4

Age, Sex, Marital Status and State of Origin Characteristics of Participants (Multiple Responses; n=1048)

Characteristics	Frequency *n*=1048	Percentage (%)
Age		
≤9	232	22.13
10-19	220	20.99
20-29	224	21.37
30-39	183	17.46
40-49	119	11.35
≥50	70	6.68
Mean	*24.16 ± 16.14 years*	
Sex		
Male	583	55.68
Female	464	44.32
Marital Status		
Single	695	66.32
Married	324	30.92
Widowed	14	1.34
Living with Partner	9	0.86
Divorced/Separated	6	0.57
State of Origin		
Rivers	423	40.36
Imo	220	20.99
Akwa ibom	214	20.42
Abia	49	4.68
Yoruba	46	4.39
Enugu	38	3.63
Cross river	15	1.43
Benue	12	1.15
Calabar	9	0.86
Delta	9	0.86
Hausa	8	0.76
Bayelsa	5	0.48

In assessing the general household characteristics of respondents, 30.55% (194) are attending school, 27.24% (173) self-employed, 26.77% (170) are adults (18 years and over) employed, 10.71% (68) are number of adults unemployed, and 3.46% (22) are number of people retired. Numbers of those who have graduated from the University outside home were majority with a proportion of 32.48% (140), followed by those with SS3 level of education, 23.43% (101) and those with Year one-Year two University education, 14.85% (64). Majority of the total household income for 2019 was between ₦100, 000 - ₦240, 000, 26.88% (68) as shown in Table 5.

Table 5

Employment, Education, and Income Characteristics of Participants (Multiple Responses; n=1048)

Characteristics	Frequency	Percentage (%)
General household characteristics (*n*=635)		
Number of people in household attending school	194	30.55
Number of adults in household self-employed or in farming	173	27.24
Number of adults (18years and over) in household employed outside home	170	26.77
Number of adults in household unemployed	68	10.71
Number of people in household retired	22	3.46
Number of adults with disabilities in household	5	0.79
Number of children (under 18 years) with disabilities in household	3	0.47
Educational Household characteristics (*n*=431)		
Number with JJS1- JSS 3 level of education	61	14.15
Number with SS1- SS 2 level of education	39	9.05
Number with SS3 level of education	101	23.43
Number with Year 1-Year 2 University education	64	14.85
Number that have graduated from the University	140	32.48
Number with Master's degree	23	5.34
Number with a PhD degree	3	0.70
Total Household income for 2019 (*n*=253)		
Less than 100,000	56	22.13
100,000 - 240,000	68	26.88
241,000 - 500,000	45	17.79
501,000 - 1,000,000	41	16.21
1,000,001 - 2,000,000	17	6.72
2,000,001-3,000,000	10	3.95
3,000,001 - 4,000,000	5	1.98
4,000,001 - 5,000,000	5	1.98
5,000,001 - 6,000,000	1	0.40
6,000,001 or more	5	1.98

Household Health Problems/Illnesses of Participants

Of those that indicated of the presence of a household health problems/Illness, Malaria was the most occurring illness (54.44%), followed by High Blood Pressure (9.47%), Arthritis (5.62%), Eye problem (3.85%), Tooth cavities (3.25%), Asthma (2.66%) and Back problems (2.66%) as shown in Table 6. Table 6

Household Health Problems/Illnesses of Participants (Multiple Responses; n=338)

Characteristics	Frequency *n*=338	Percentage (%)
Malaria	184	54.44
High blood pressure	32	9.47
Arthritis	19	5.62
Diabetes	18	5.33
Eye problem	13	3.85
Tooth cavities	11	3.25
Asthma	9	2.66
Back problems	9	2.66
Cough	5	1.48
Heart disease	5	1.48
Waist pain	5	1.48
Cancer	3	0.89
Depression	3	0.89
Hepatitis c	3	0.89
Loss of many teeth	2	0.59
Alcoholism	2	0.59
Dementia(Memory Loss)	2	0.59
Osteoporosis	2	0.59
Ulcer	2	0.59
Stroke	1	0.30
Drug Abuse	1	0.30
Overweight	1	0.30
Benign prostrate	1	0.30
Epilepsies	1	0.30
Itching body	1	0.30
Low blood pressure	1	0.30
Pile	1	0.30
Skin infection	1	0.30

Health Insurance Characteristics of Participants

Of the 270 respondents, only 20.4% (55) said they have health insurance. The rest, 79.6% do not have Health Insurance as shown in Figure 2.

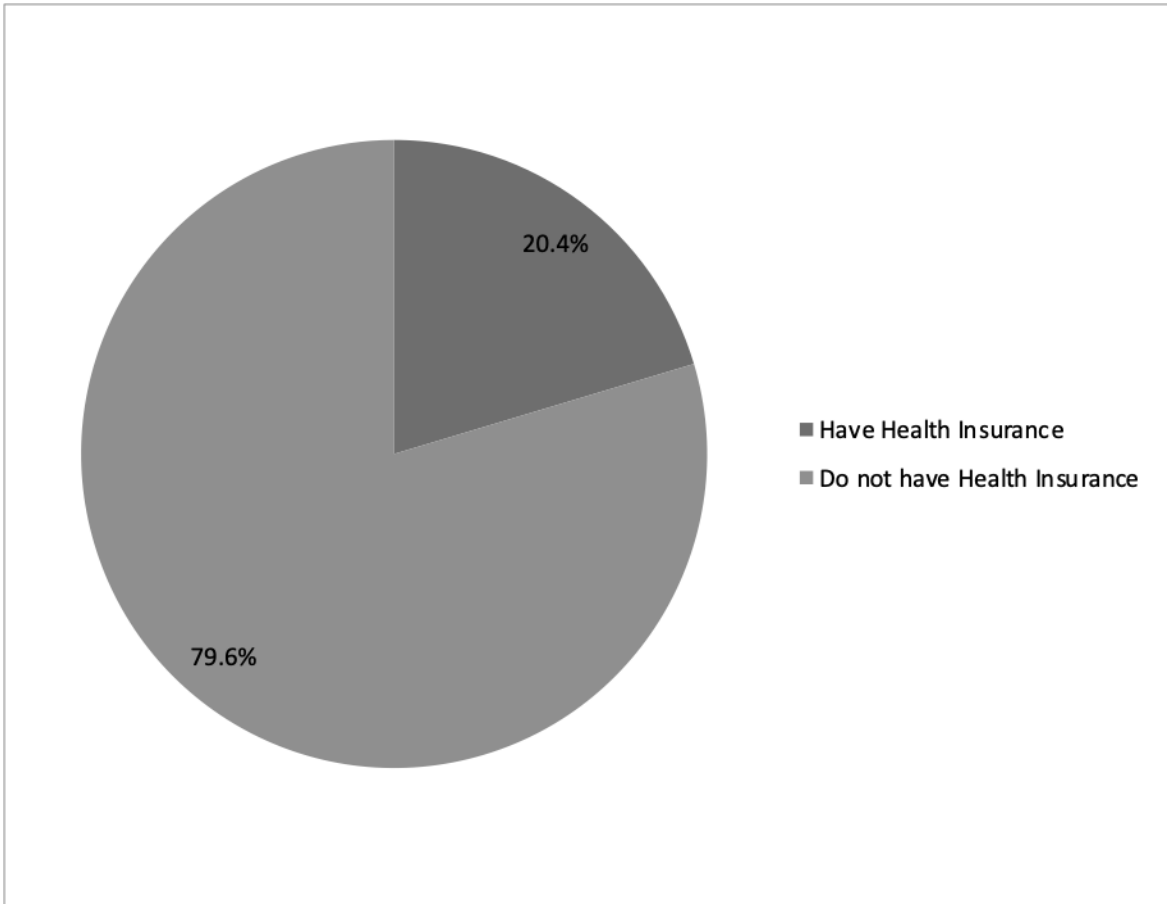


Figure 2. Population Distribution of Health Insurance.

In this study, 42.96% (116) of the participants' household members have health insurance while 57.04% (154) do not have health insurance. In assessing the varying characteristics of health insurance ownership, less than half (33.83%) have adults (18yrs+) with health insurance and less than a third (19.40%) has children (under 18yrs) with health insurance.

Of the 72 that responded on the type of health insurance they or members of their family utilize, most (48.61%) said they use employer sponsored, 23.61% OBIO (Health Maintenance Organization; HMO), 13.89% National Health Insurance Scheme (NHIS), 6.94% AXA Mansard Health, 5.56 HYGIA and the least (1.39%) State-Sponsored Community Health Insurance Program (CHIP; Table 7)

Table 7

Age of Participant and Type of Health Insurance Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
Household members have Health Insurance		
Yes	116	42.96
No	154	57.04
Varying characteristics of health Insurance ownership (*n*=201) (*Multiple responses*)		
Number of Adults (18yrs+) with health Insurance	68	33.83
Number of Adults (18yrs+) with NO health Insurance	61	30.35
Number of Children (under 18yrs) with health Insurance	39	19.40
Number of Children (under 18yrs) with NO health Insurance	33	16.42
Type of Health Insurance (*n*=72) (*Multiple responses*)		
Number with Employer Sponsored	35	48.61
Number with OBIO	17	23.61
Number with NHIS	10	13.89
Number with AXA Mansard Health	5	6.94
Number with HYGIA	4	5.56
Number with State-Sponsored Community Health Insurance Program (CHIP)	1	1.39

When asked of the level of insurance coverage to the 116 respondents whose household are covered by health insurance, only 50% (58) said prescription medicines, 21.55% (25) said dental services, and 24.14% (28) said vision services/eyeglasses. In all levels and categories, adults (18yrs and over) have more coverage than children (under 18): 60.40% vs. 39.60% for prescription medicines, 65.12% vs. 34.88% for dental services and 67.39% vs. 32.61% for vision services/eyeglasses (Table 8).

Table 8

Level of Health Insurance Coverage Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
LEVEL OF INSURANCE COVERAGE		
Prescription medicines (n=116)		
Yes	58	50.00
No	58	50.00
Number of Prescription medicines covered (*n*=101) (*Multiple responses*)		
Adults (18yrs and over)	61	60.40
Children (under 18)	40	39.60
Dental Services (*n*=116)		
Yes	25	21.55
No	91	78.45
Number of Dental services covered (*n*=43) (*Multiple responses*)		
Adults (18yrs and over)	28	65.12
Children (under 18)	15	34.88
Vision Services/eyeglasses (*n*=116)		
Yes	28	24.14
No	88	75.86
Number of Vision Services/eyeglasses covered (*n*=46) (*Multiple responses*)		
Adults (18yrs and over)	31	67.39
Children (under 18)	15	32.61

Reasons why some household members do not have health insurance were: Too expensive and unaffordable (33.66%), Unemployed (22.98%), Not offered by their employer (18.45%), Don't believe in insurance (8.74%), Healthy and don't need insurance (5.83%), Have a free/inexpensive alternative care (5.83%) and Not eligible through employer (2.59%)**.**

How not having or inadequate health insurance affect their quality of life, over half (57.96%) said it does not affect their quality of life, 27.76% said somewhat and the rest 14.29% said a great deal. When asked how much they can afford to pay if they do not have health insurance, most (46.59%) said between ₦9, 100 and above with an average of 23,000 Naira (Table 9).

Table 9

Ability to Procure and Impact of Health Insurance Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
Reasons why some household members do not have Health Insurance (*n*=309) (*Multiple responses*)		
Too expensive, can't afford it	104	33.66
Unemployed	71	22.98
Not offered by my employer	57	18.45
Don't believe in insurance	27	8.74
Healthy don't need insurance	18	5.83
Free/inexpensive care is available	18	5.83
Not eligible through employer	8	2.59
Can't get because poor health, illness or age	3	0.97
Too old for coverage under family plans	3	0.97
How does not having or inadequate health insurance affect your quality of life (*n*=245)		
A great deal	35	14.29
Somewhat	68	27.76
Not at all	142	57.96
If you do NOT have health insurance, how much could you pay for health insurance premiums in Naira (*n*=176)		
≤1000	24	13.64
1100-3000	31	17.61
3100-5000	25	14.20
5100-7000	12	6.82
7100-9000	2	1.14
9100 and above	82	46.59
Mean	*22, 943.18 ± 102,042.80 Naira*	

Source and Utilization of Health Care/Health Seeking Behavior Characteristics of Participants

Overall, 65.9% (178) of the respondents said they or members of their household regularly utilize health care services, while the rest (34.1%) said they do not, as shown in Figure 4.

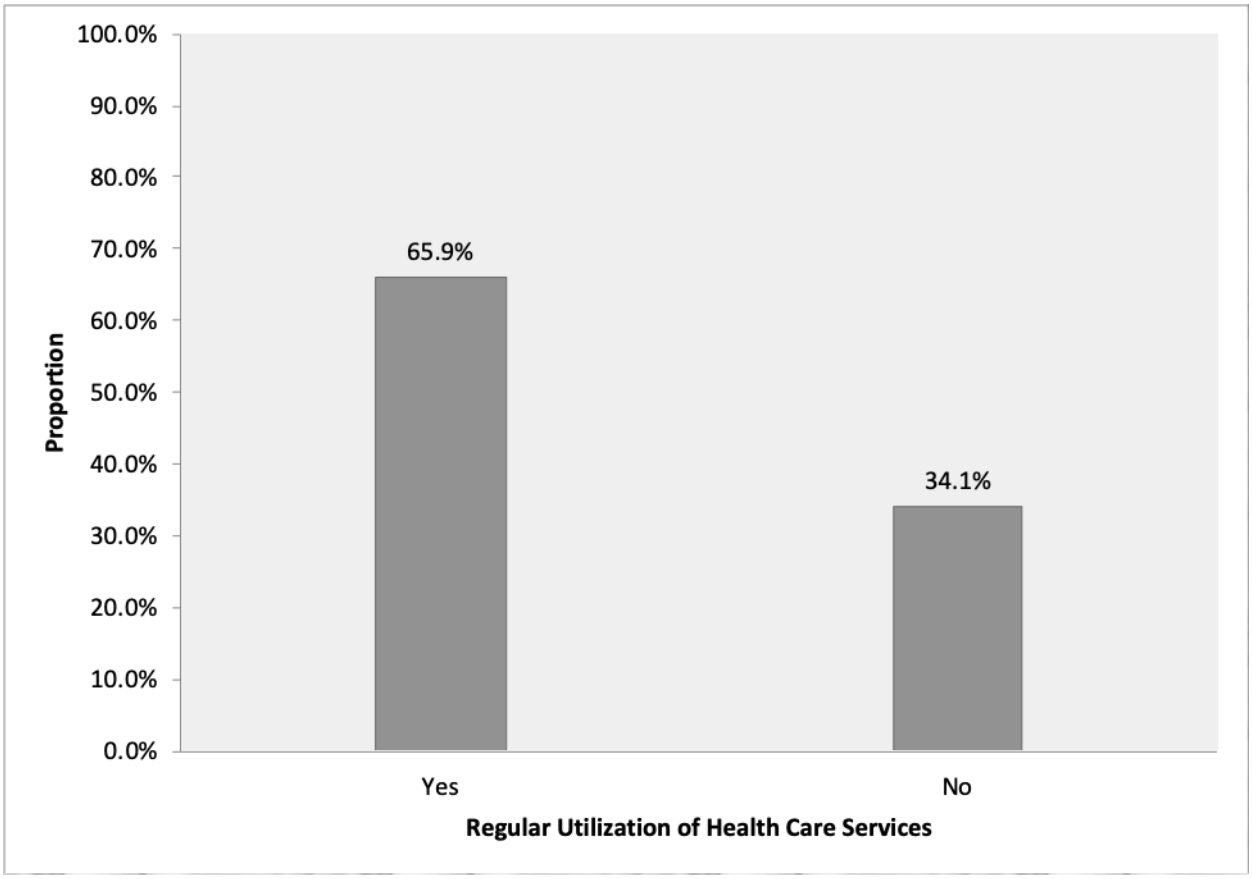


Figure 3. Regular Utilization of Health Care Services

Numbers of people in respondent's household that have regular provider of medical care, 42.75% are adults and 26.81% are children. Doctor (61.11%) was the highest provider of medical care, followed by the pharmacy (27.41%) and the nurse practitioner (10.0%). It takes an average of seven months to see a medical care provider, with doctor (eight months), Dentist (three months), Nurse Practitioner (three months) and Physician Assistant (two months) as shown in Table 10.

Table 10

Source and Frequency of Utilization of Health Care/Health Seeking Behavior Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
Number of people in household that have/have no regular provider of medical care? (*n*=414) (*Multiple responses*)		
Adults with regular provider	177	42.75
Children with regular provider	111	26.81
Adults without regular provider	85	20.53
Children without regular provider	41	9.90
Provider (*n*=270) (*Multiple responses*)		
Doctor	165	61.11
Pharmacy	74	27.41
Nurse practitioner	27	10.00
Physician assistant	4	1.48
Month ago respondents saw a provider (Mean ± SD)		
Doctor	7.96 ±24.46	
Physician Assistant	1.79 ± 1.50	
Nurse Practitioner	(a) 2.58 ± 2.48	
Dentist	3.17 ± 3.43	
The Average time any provider is seen		
Mean	*7.26 ± 23.16 months*	

Of the 270 respondents, majority, 84.07% (227) said their regular provider will see them only when they are sick, 48.15% (130) said their provider will make referrals to other health care providers when needed, more than half (85.56%, 231) said they go to the clinic/hospital only when they are sick, with an average of 3 times in the last 12 months. Only 3.7 % (10) said their provider refer them too often to a specialist. Furthermore, only 1.1% (three) said their insurance has ever denied them health care that was recommended by their provider with an average denier times of 2.0.

Table 11

Timeliness and Utilization of Health Care/Health Seeking Behaviour Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
Regular provider see you only when you are sick		
Yes	227	84.07
No	43	15.93
Provider make referrals to other health care providers when needed		
Yes	130	48.15
No	140	51.85
Go to the clinic/hospital only when you are sick		
Yes	231	85.56
No	39	14.44
Number of times you have been to the clinic/hospital in the last 12months?		
None	62	22.96
1-2	87	32.22
3-4	2	0.74
3-4	72	26.67
≥ 5	47	17.41
Mean	*2.65 ± 2.77*	
Provider refer you too often to specialists		
Yes	10	3.70
No	260	96.30
Insurance ever denied you health care that was recommended by your provider		
Yes	3	1.11
No	267	98.89
If yes, how many times (n=3)		
1	1	33.33
2	1	33.33
3	1	33.33
Mean	*2.0 ± 1.0*	

Of the 270 respondents, 47.41% (128) said their household go to the hospital clinic, followed by 27.78% (75) chemist/pharmacy and 15.93% (43) doctor's office. The average number of times in the last year anyone in their household had used a hospital emergency room was 1 time; and when asked the time it normally takes to travel to their regular health care provider, 30.0% (81) said less than 5 minutes, 27.41% (74) said between 6-15 minutes and 16.67% (45) said between 26-35 minutes, with an average time *of 22 minutes* as shown in Table 12.

Table 12

Point of Care and Utilization of Health Care/Health Seeking Behavior Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
Where household/family go most often for medical care		
Hospital clinic	128	47.41
Chemist/pharmacy	75	27.78
Doctor's office	43	15.93
Community clinic	17	6.30
Health department	3	1.11
Hospital emergency room	2	0.74
Trado-medicine	2	0.74
Number of times in the last year has anyone in your household used a Hospital Emergency Room		
None	253	93.70
One	14	5.19
Two or Three	3	1.11
Mean	*1.24±0.56*	
Time it normally take to travel to your regular health care provider (*Minutes*)		
≤ 5	81	30.00
6-15	74	27.41
16-25	28	10.37
26-35	45	16.67
36-45	15	5.56
46-60	15	5.56
≥ 60	12	4.44
Mean	*21.93 ± 24.34*	

When asked how they got to their regular provider, over half (52.59%) said it is via Taxi or public transportation, 28.15% (76) said they walk, and 14.44% (39) said they drive their own car. When asked how much of a problem getting to their health provider's clinic/office, majority (82.22%) said it was no problem. Only 7.78% (21) said it was a big problem. When asked if they see their health care provider on a regular schedule, only 13.70% (37) said Yes. When asked if their children under age 18years see their health care provider on a regular schedule, only 9.22% (20) said Yes as shown in Table 13.

Table 13

Source and Utilization of Health Care/Health Seeking Behavior Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
How your regular health care provider is gotten to		
Taxi or public transportation	142	52.59
Walk	76	28.15
Drive own car	39	14.44
Someone drives you	13	4.81
How much of a problem getting to your health provider's clinic/office		
No problem	222	82.22
Somewhat of a problem	27	10.00
Big problem	21	7.78
Do you see your health care provider on a regular schedule (for example every 3-6 months)		
Yes	37	13.70
No	233	86.30
Do your children under age 18years see their health care provider on a regular schedule		
Yes	20	9.22
No	197	90.78

Furthermore, when asked how soon they usually seek health care if they suspect a health problem/illness, 52.59% (142) said at the first sign of a problem, 42.22% (114) said after trying to take care of the problem without success and 5.19% (14) said as a last resort. For their children, 57.60% (125) said at the first sign of a problem, 38.71% (84) said after trying to take care of the problem without success and 3.69% (eight) said as a last resort as shown in Table 14.

Table 14

Source and Utilization of Health Care/Health Seeking Behavior Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
When do you usually seek health care if you suspect a health problem/illness		
At the first sign of a problem	142	52.59
After trying to take care of the problem without success	114	42.22
As a last resort	14	5.19
When do you usually seek health care for your children if you suspect a health problem/illness (*n*=217)		
At the first sign of a problem	125	57.60
After trying to take care of the problem without success	84	38.71
As a last resort	8	3.69

Access–Level of Satisfaction Characteristics of Participants

When asked respondents how much problem they have concerning the long wait between making an appointment and the day of their visit, the long wait in the waiting room and the long wait in the exam room before the provider saw them, most in all three categories said None (62.59%, 52.96% & 59.26%).

Table 15

Access – Level of Satisfaction Characteristics of Participants (n=270)

Characteristics	Frequency n=270	Percentage (%)
HOW MUCH OF A PROBLEM		
The long wait between making an appointment and the day of your visit		
Big	20	7.41
Small	81	30.00
None	169	62.59
The long wait in the waiting room		
Big	21	7.78
Small	106	39.26
None	143	52.96
The long wait in the exam room before the provider saw you		
Big	9	3.33
Small	101	37.41
None	160	59.26

Respondents rated the different services they experience at their health care provider, Courtesy and respect shown by the health care provider was rated mostly Good (60.37%), Carefulness of the exam and treatment they received was rated mostly Good (60.37%), Understood the healthcare provider's speech and/or accent was rated mostly Good (65.19%), Health care provider listened to them was rated mostly Good (69.26%)

and Health care provider understood them was rated mostly Good (65.93%) as shown in Table 16.

Table 16

Access–Level of Satisfaction Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
HOW WELL WOULD YOU RATE THE FOLLOWING SERVICES		
Courtesy and respect shown by the health care provider		
Poor	4	1.48
Fair	44	16.30
Good	148	54.81
Excellent	74	27.41
Carefulness of the exam and treatment you received		
Poor	3	1.11
Fair	40	14.81
Good	163	60.37
Excellent	64	23.70
Understood the healthcare provider's speech and/or accent		
Poor	0	0.0
Fair	31	11.48
Good	176	65.19
Excellent	63	23.33
Health care provider listened to you		
Poor	1	0.37
Fair	25	9.26
Good	187	69.26
Excellent	57	21.11
Health care provider understood you		
Poor	2	0.74
Fair	32	11.85
Good	178	65.93
Excellent	58	21.48

In continuation from the previous Table 16, Health care provider explained their health problem in terms/language they could understand, Their question were answered, The health care provider figured out what was wrong and what needed to be done to them, The health care provider checked on their progress and gave them their test results, and They were advised on how to stay healthy and keep from getting sick were all rated mostly Good (from 59.26% to 68.15%) as shown in Table 17.

Table 17

Access – Level of Satisfaction Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
HOW WELL WOULD YOU RATE THE FOLLOWING SERVICES		
Health care provider explained your health problem in terms/language you could understand		
Poor	0	0.0
Fair	35	12.96
Good	184	68.15
Excellent	51	18.89
Your questions were well answered		
Poor	1	0.37
Fair	38	14.07
Good	174	64.44
Excellent	57	21.11
Health care provider figured out what was wrong and what needed to be done		
Poor	0	0.0
Fair	41	15.19
Good	184	68.15
Excellent	45	16.67
Health care provider checked on your progress, gave you test results, or reminded you to get follow-up care		
Poor	30	11.11
Fair	49	18.15
Good	160	59.26
Excellent	31	11.48
Advised you on how to stay healthy and keep from getting sick		
Poor	14	5.19
Fair	38	14.07
Good	181	67.04
Excellent	37	13.70

In continuation from the previous Table 17, health care providing information about preventive care, The hours the office was open for appointments, getting care for sickness, getting phone calls answered without delay, getting phone calls returned, and understanding what the health care provider said were all rated mostly good (from 49.26% to 62.22%) as shown in Table 18.

Table 18

Access – Level of Satisfaction Characteristics of Participants (n=270)

Characteristics	Frequency *n=270*	Percentage (%)
HOW MUCH OF A PROBLEM DID YOU HAVE WITH		
Provided Information about preventive care		
Poor	22	8.15
Fair	42	15.56
Good	168	62.22
Excellent	38	14.07
The hours when the office was open for appointments		
Big	17	6.30
Small	48	17.78
None	151	55.93
Not Applicable	54	20.00
Getting care for sickness or injury during evenings and weekends		
Big	15	5.56
Small	51	18.89
None	142	52.59
Not Applicable	62	22.96
Getting phone calls to providers answered without delays or transfers		
Big	8	2.96
Small	38	14.07
None	133	49.26
Not Applicable	91	33.70
Having phone calls returned by a health care provider		
Big	11	4.07
Small	37	13.70
None	135	50.00
Not Applicable	87	32.22
Understanding what the health care provider said		
Big	12	4.44
Small	33	12.22
None	161	59.63
Not Applicable	64	23.70

Only 16.67% (45) of the respondents only see a medical care provider in the past year when not sick or injured for routine health check-ups, and the average number of times was 3. Most (54.07%) have a deal of confidence with their health care provider, and only 15.93% in the past year have changed the place where they usually go for medical care for most of the following reasons: Medical needs changed (27.91%), moved residence (27.91%), previous source of care treated me rudely (9.30%), dissatisfied with previous source of care (9.30%), and former source of care left area/retired (6.98%) as shown in Table 19.

Table 19

Access–Level of Satisfaction Characteristics of Participants (n=270)

Characteristics	Frequency *n=270*	Percentage (%)
Seen a medical care provider in the past year when NOT sick or injured for routine health check-ups		
Yes	45	16.67
No	225	83.33
Average number of times (*n*=45)		
Mean	*2.80 ± 2.58 times*	
How much confidence do you have with your health care provider		
A great deal of confidence	146	54.07
Some confidence	92	34.07
Little or no confidence	32	11.85
Did you or anyone in your household in the past year change the place where you usually go for medical care		
Yes	43	15.93
No	227	84.07
Number of times (n=43)		
1	27	62.79
2	8	18.60
3+	8	18.60
Mean	*1.72 ± 1.24 times*	
Main reason (n=43)		
Medical needs changed	12	27.91
Moved Residence	12	27.91
Previous source of care treated me rudely	4	9.30
Dissatisfied with previous source of care	4	9.30
Former source of care left area/retired	3	6.98
Liked new source of care matter	3	6.98
Employer changed insurance coverage	2	4.65
Owned Money to previous provider	2	4.65
Changed Jobs	1	2.33

Respondents could not afford it (38.46%), no insurance (15.38%), not serious enough problem (12.82%), and wait too long in clinic/office (12.82%) are the most reasons for changing their provider of medical care in the past year. Only 19.26% (52) and 21.11% (57) had been kept from getting medical care due to lack of insurance, money or worry about cost in the past year with an average of two times in each case (Table 20).

Table 20

Access–Change of Provider Characteristics of Participants (n=270)

Characteristics	Frequency *n=270*	Percentage (%)
Other reasons you or anyone household in the past year change the place where you usually go for medical care (*n*=39) (*Multiple responses*)		
Couldn't afford it	15	38.46
No Insurance	6	15.38
Not serious enough problem	5	12.82
Wait too long in clinic/Office	5	12.82
Do not like/trust/believe providers	3	7.69
No provider available	3	7.69
No way to get there	2	5.13
Did a lack of insurance or money in the past year keep anyone in your household from getting medical care		
Yes	52	19.26
No	218	80.74
Number of times (n=52)		
1	26	50.00
2	9	17.31
3	7	13.46
4+	10	19.23
Mean	*2.44 ± 2.44 times*	
Did anyone in your household in the past year put off getting medical care because of worry about the cost		
Yes	57	21.11
No	213	78.89
Number of times (n=57)		
1	29	50.88
2	8	14.04
3	9	15.79
4 +	11	19.30
Mean	*2.47 ± 2.28 times*	

Only 24.07 (65), 12.96% (35), 12.22% (33) and 0.74% (two) had been kept from getting medicine, dental services, needed glasses and mental care services due to lack of insurance or money in the past year with an average of two times in each case as shown in Table 21.

Table 21
Access and Cost of Care Characteristics of Participants (n=270)

Characteristics	Frequency *n=270*	Percentage (%)
Did anyone in your household in the past year needed medicine they couldn't afford to get it		
Yes	65	24.07
No	205	75.93
Number of times (*n*=65)		
1	27	41.54
2	15	23.08
3	7	10.77
4+	16	24.62
Mean	*2.49 ± 1.91 times*	
Was there a time in the past year when someone in your household needed dental care but couldn't afford to get it		
Yes	35	12.96
No	235	87.04
Number of times (n=35)		
1	25	71.43
2	2	5.71
3+	8	22.86
Mean	*2.14 ± 2.17 times*	
Was there a time in the past year when someone in your household needed glasses but couldn't afford to get them		
Yes	33	12.22
No	237	87.78
Number of times (n=33)		
1	20	60.61
2	4	12.12
3+	9	27.27
Mean	*2.30 ± 2.27 times*	
Was there a time in the past year when someone needed mental health care but couldn't get it		
Yes	2	0.74
No	268	99.26
Number of times (n=2)		
1	1	50.00
4	1	50.00

Most of the respondents have no problem with paying for health insurance (67.19%), medication/prescriptions (66.82%), health provider office visits (68.33%), dental care (67.07%) and eye care (66.06%). On the reverse, paying for health insurance was a bigger problem (23.44%) compared to eye care (20.0%), dental care (18.29%). The least was medication/prescriptions (15.89%) as shown in Table 22.

Table 22

Access and Affordability of Care Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
HOW MUCH OF A PROBLEM DO YOU HAVE WITH PAYING FOR:		
Health Insurance (*n*=128)		
No problem	86	67.19
Somewhat of a problem	12	9.38
Big problem	30	23.44
Medication/prescriptions (*n*=214)		
No problem	143	66.82
Somewhat of a problem	37	17.29
Big problem	34	15.89
Health provider office visits (*n*=180)		
No problem	123	68.33
Somewhat of a problem	32	17.78
Big problem	25	13.89
Dental Care (*n*=164)		
No problem	110	67.07
Somewhat of a problem	24	14.63
Big problem	30	18.29
Eye Care (*n*=165)		
No problem	109	66.06
Somewhat of a problem	23	13.94
Big problem	33	20.00

Health Behavioral Characteristics of Participants

Very few of the respondents, 26.67% (72) have had a flu shot during the last 12 months, 1.1% (3) of those over 65 years has ever had pneumonia shot, 6.67% (18) use tobacco**,** and most (42.59%) use alcohol, with 1 drink a week or less (70.43%) as shown in Table 23.

Table 23

Flu Shots, Tobacco and Alcohol use, Health Behavioral Characteristics of Participants (n=270)

Characteristics	Frequency *n*=270	Percentage (%)
Ever had a flu shot during the last 12months		
Yes	72	26.67
No	198	73.33
Ever had pneumonia shot if you are over 65 (*n*=12)		
Yes	3	1.11
No	9	3.33
Not Applicable	258	95.56
Any household use of tobacco		
Yes	18	6.67
No	252	93.33
What form of tobacco (*n*=18)		
Smoke Cigarettes	18	100.00
Any household use alcohol		
Yes	115	42.59
No	155	57.41
How frequently (*n*=115)		
1 drink a week or less	81	70.43
2-3 drinks a week	18	15.65
More than 3 drinks a week	16	13.91

A little over half of the respondents, 50.74%% (137) exercise regularly, with 37.23% exercise at least once a week, 47.41% (128) regularly use car seat restraints (seats belts), 23.70% (64) have their children regularly use a car seat restraint or a special car seat for children. Furthermore, most of the respondents (62.22%, 168) describe their current state of health as good, 25.93% (70) said excellent, and 10.74 % (29) said fair. Only 1.11% (three) said poor. Most of the respondents also think the lack of health insurance in Nigeria is a big problem (74.81%, 202). Only 6.30% (17) thinks it is of no problem as shown in Table 24.

Table 24

Exercise and Other Health Behavioral Characteristics of Participants (n=270)

Characteristics	Frequency *n=270*	Percentage (%)
Exercise regularly (for at least 20minutes)		
Yes	137	50.74
No	133	49.26
How often (*n*=137)		
Once a week	51	37.23
2-3 times a week	41	29.93
More than 3 times a week	45	32.85
Regularly use car seat restraints (seats belts)		
Yes	128	47.41
No	142	52.59
My children regularly use a car seat restraint or a special car seat for children		
Yes	64	23.70
No	123	45.56
Not Applicable (I do not have children)	83	30.74
How would you describe your current state of health		
Excellent	70	25.93
Good	168	62.22
Fair	29	10.74
Poor	3	1.11
How much of a problem do you think lack of health insurance is in Nigeria		
No problem	17	6.30
Somewhat of a problem	51	18.89
Big problem	202	74.81

Majority of the respondents, 78.15% (211) said they are satisfied with the quality of their health care, with only 21.85% (59) saying they are not satisfied. For those not satisfied, 30.51% said it was due to lack of funds for regular checkups, 15.25% said it was because doctors barely have time to attend to patients, 11.86% said it was due to high complacency and inadequate service and 10.17% said it was due to inadequate medical facilities & equipment's. When asked what they do like about their current health care, 26.61% said they are satisfied because they can go to the clinic, 22.98% said it is because of the quality of the health care services, 15.32% said the health providers are always available to attend to them and 10.08% said it is because of the good drugs as shown in Table 25.

Table 25

General Satisfaction with Health Care Characteristics of Participants (n=270)

Characteristics	Frequency *n=270*	Percentage (%)
I am satisfied with the quality of my health care		
Yes	211	78.15
No	59	21.85
If not, kindly explain (*n*=59)		
Lack of funds for regular checkups	18	30.51
Doctors barely have time to attend to patients	9	15.25
High complacency and inadequate service	7	11.86
Inadequate medical facilities & Equipment's	6	10.17
No quality drugs	4	6.78
Distance to the hospital	4	6.78
The bill is on the high side	3	5.08
Don't have a regular health care provider	2	3.39
I feel the policy is not working well in Nigeria	2	3.39
Inefficient personnel both doctors and nurses	2	3.39
The health packages are too restrictive	2	3.39
What do you like about your current health care (*n*=248) (*Multiple responses*)		
I am always satisfied when I go to the clinic	66	26.61
Quality health care services	57	22.98
Always available to attend to me	38	15.32
Good drugs	25	10.08
It is affordable	24	9.68
Cleanliness and neat environment of the hospital	10	4.03
The attentiveness of the doctor	9	3.63
It is close to my house	8	3.23
The staff are professionals	8	3.23
Have adequate equipment's	3	1.21

When asked what they dislike about the current health care, 25.29% said delay to see the doctor, 24.14% said poor services, 14.94% said expensive, 11.49% said poor attitudes of hospital staff, 8.05% said lack of sufficient drugs and 6.90% said distance. When asked how they would fix the health care problems listed, most (69.16%) said provision of affordable health care, 12.15% said recruitment of health care specialists, 10.28% said provision of adequate and good doctors and 8.41% said provision of adequate medical facilities and drugs as shown in Table 26.

Table 26

Improving General Health Care Characteristics of Participants (n=270)

Characteristics	Frequency *n=270*	Percentage (%)
What do you dislike about your current health care (*n*=87) (*Multiple responses*)		
Delay to see the doctor	22	25.29
Poor services	21	24.14
Expensive	13	14.94
Poor attitudes of hospital staff	10	11.49
Lack of sufficient drugs	7	8.05
Distance	6	6.90
Lack of good equipment's	4	4.60
Frequent change of doctors	2	2.30
Most of them are not medically inclined	2	2.30
How would you fix the health care problems listed above (*n*=107) (*Multiple responses*)		
Provision of affordable health care	74	69.16
Recruitment of health care specialists	13	12.15
Provision of adequate and good doctors	11	10.28
Provision of adequate medical facilities and drugs	9	8.41

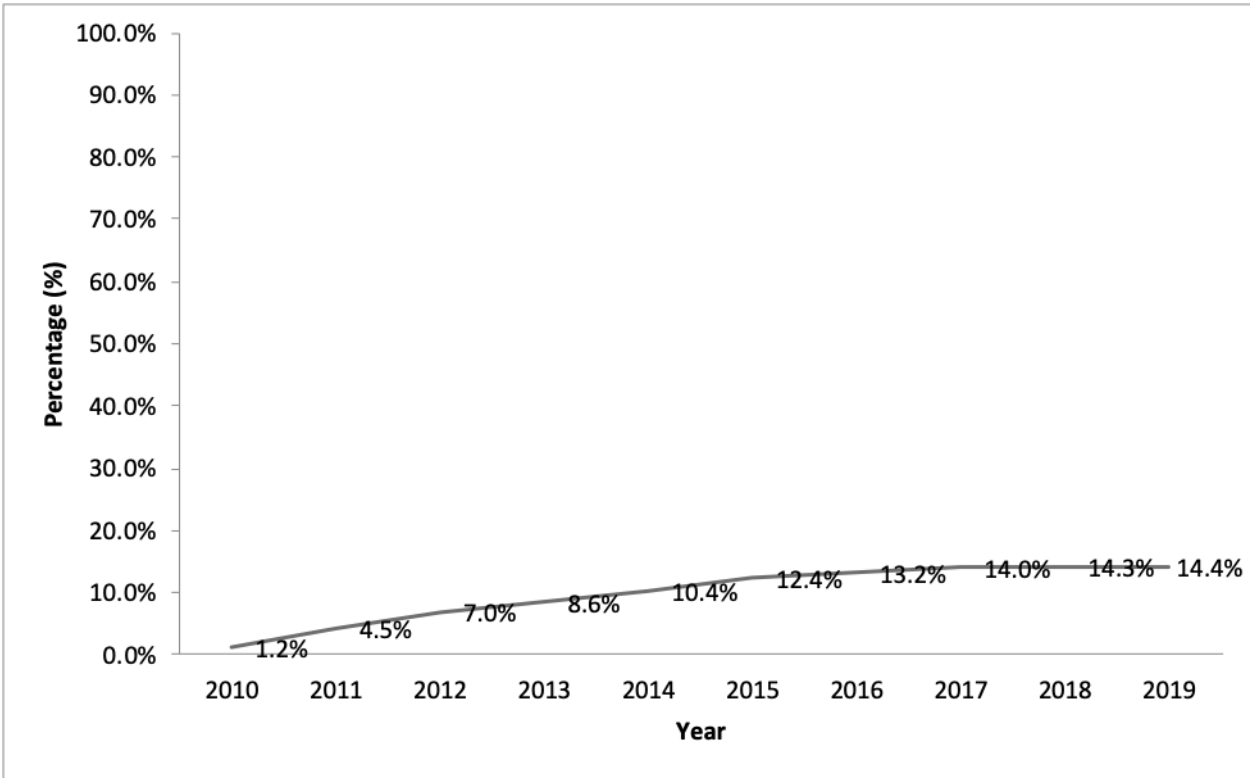


Figure 4. Percentage Increase in Total Attendance at A Model Health Insurance Mobilization Facility from 2010-2019 (*n*=640,061).

A statistically significant trend is observed in total attendance at the commencement of health insurance from 2010 to 2019 in a model health insurance offering facility in Rivers State (Chi-Square $(\chi)^2$=133633.01; p=0.001)*.

Research Questions and Hypotheses

RQ1. How does access to health insurance affect healthcare seeking behavior of a population?

H_1: The procurement of health insurance enhances access to healthcare.

Table 27

Association Between Procurement of Health Insurance and Access to Health Care

Procurement of health Insurance	Access to Health Care		Total	*df*	*Chi-Square* $(\chi)^2$ *(p-value)*	OR[μ] (95% CI)
	Yes	No				
	Freq (%) n=45	Freq (%) n=225	Freq (%) n=270			
Yes	21 (38.18)	34 (61.82)	55 (100.0)	1	21.12 *(0.001)**	4.92 (2.47-9.80)
No	24 (11.16)	191 (88.84)	215 (100.0)			

******Statistically significant (p<0.05), df=Degree of freedom,* **[μ]***Bivariate logistic regression using Odds Ratio (OR)*

A statistically significant association was observed between respondent's procurement of health insurance and access to health care, as respondents who currently have health insurance had a higher statistically significant proportion for having access to health care compared to respondents without health insurance (38.18% vs. 11.16%; *p=0.001*). The bivariate logistic regression analysis showed that respondents who currently have health insurance were 4.92 times more likely to have access to health care compared to respondents without health insurance (OR=4.92; *p=0.001*; 95% CI: 2.47-9.80).

H_2: Access to health insurance increases health services utilization.

Table 28

Association Between Access to Health Insurance and Health Services Utilization

Access to health insurance	Health Services Utilization		Total	*df*	*Chi-Square* $(\chi)^2$ *(p-value)*	OR$^{\mu}$ (95% CI)
	Yes	No				
	Freq (%) *n*=178	Freq (%) *n*=92	Freq (%) *n*=270			
Yes	51 (92.73)	4 (7.27)	55 (100.0)	1	20.61 *(0.001)**	8.83 (3.08-25.33)
No	127 (59.07)	88 (40.93)	215 (100.0)			

******Statistically significant (p<0.05), df=Degree of freedom,* **$^{\mu}$***Bivariate logistic regression using Odds Ratio (OR)*

A statistically significant association was observed between respondent's access to health insurance and health services utilization, as respondents who currently have access to health insurance had a higher statistically significant proportion for health services utilization compared to respondents without access to health insurance (92.73% vs. 59.07%; *p=0.001*). The bivariate logistic regression analysis showed that respondents who currently have access to health insurance were 8.83 times more likely to utilize health services compared to respondents without access to health insurance (OR=8.83; *p=0.001*; 95%CI: 3.08-25.33).

H_3: The insured seek preventive care.

Table 29

Association Between Access to Health Insurance and Seeking of Preventive Care

Access to health insurance	Seeking of Preventive Care		Total	*df*	*Chi-Square* $(\chi)^2$ *(p-value)*	OR$^{\mu}$ (95% CI)
	Yes	No				
	Freq (%) *n*=39	Freq (%) *n*=231	Freq (%) *n*=270			
Yes	13 (23.64)	42 (76.36)	55 (100.0)	1	3.83 *(0.05)**	2.25 (1.06-4.74)
No	26 (12.09)	189 (87.91)	215 (100.0)			

******Statistically significant (p<0.05), df=Degree of freedom,* **$^{\mu}$***Bivariate logistic regression using Odds Ratio (OR)*

A statistical significant association was observed between respondent's access to health insurance and seeking of preventive care, as respondents who currently have access to health insurance had a higher statistically significant proportion for seeking of preventive care compared to respondents without access to health insurance (23.64% vs. 12.09%; *p=0.05*). The bivariate logistic regression analysis showed that respondents who currently have access to health insurance were 2.25 times more likely to seek for preventive care compared to respondents without access to health insurance (OR=2.25; *p=0.05*; 95% CI: 1.06-4.74).

H_3: Other formal healthcare options are available to those without health insurance.

Table 30

Association Between Access to Health Insurance and Healthcare Options

Access to health insurance	Healthcare options		Total	*df*	*Chi-Square* $(\chi)^2$ *(p-value)*	OR[µ] (95% CI)
	Formal healthcare options	Other formal healthcare options				
	Freq (%) *n*=193	Freq (%) *n*=77	Freq (%) *n*=270			
Yes	54 (98.18)	1 (1.82)	55 (100.0)	1	22.54 *(0.001)**	29.53 (4.0-217.67)
No	139 (64.65)	76 (35.35)	215 (100.0)			

Statistically significant (p<0.05), df=Degree of freedom, µBivariate logistic regression using Odds Ratio (OR)
Formal Health Care options: Doctor's Office, Community Clinic, Hospital Clinic, Health Department, Hospital Emergency Room
Other formal healthcare options: Chemist, Pharmacy, Trado-medine

A statistical significant association was observed between respondent's access to health insurance and healthcare option, as respondents who currently have access to health insurance had a higher statistically significant proportion for utilizing formal healthcare options compared to respondents without access to health insurance (98.18% vs. 64.65%; *p=0.001*). The bivariate logistic regression analysis showed that respondents who currently have access to health insurance were 29.53 times more likely to utilize a formal healthcare option compared to respondents without access to health insurance (OR=29.53; *p=0.001*; 95%CI: 4.0-217.67).

RQ2. How does access to health insurance affect the preventive care seeking behavior of a population?

H_1: People with health insurance seek care timely and frequently.

Table 31

Association Between Access to Health Insurance and Seeking of Timely Healthcare

Access to Health Insurance	Seeking of timely healthcare	*Student t-test (p-value)*
	Mean ± SD *(in months)*	
Yes	3.83 ± 3.99	2.01 *(0.05)**
No	8.52 ± 26.91	

**Statistically significant (p<0.05)*

A statistical significant association was observed between respondent's access to health insurance and seeking of timely healthcare, as respondents who currently have access to health insurance will seek healthcare averagely in the third month while respondents without access to health insurance will seek for healthcare averagely in the eight month (3.83 vs. 8.52) and this finding is statistically significant (t=2.01; p=*0.05*).

H_2: People with health insurance seek medications or treatments at the first sign of a health challenge?

Table 32

Association Between Access to Health Insurance and When Healthcare is Sought

Access to health insurance	When healthcare is sought		Total	*df*	*Chi-Square* $(\chi)^2$ *(p-value)*	OR$^{\mu}$ (95% CI)
	At the first sign of a problem	After trying and at last resort and suffer				
	Freq (%) *n*=142	Freq (%) *n*=128	Freq (%) *n*=270			
Yes	38 (69.09)	17 (30.91)	55 (100.0)	1	6.73 *(0.01)**	2.39 (1.27-4.49)
No	104 (48.37)	111 (51.63)	215 (100.0)			

******Statistically significant (p<0.05), df=Degree of freedom,* **$^{\mu}$***Bivariate logistic regression using Odds Ratio (OR)*

A statistical significant association was observed between respondent's access to health insurance and when healthcare is sought, as respondents who currently have access to health insurance had a higher statistically significant proportion for seeking healthcare at the first sign of a problem compared to respondents without access to health insurance who seek healthcare after trying multiple alternatives or as a last resort and suffer in the process (69.09% vs. 48.37%; *p=0.01*). The bivariate logistic regression analysis showed that respondents who currently have access to health insurance were 2.39 times more likely to seek healthcare at the first sign of the problem compared to respondents without access to health insurance (OR=2.39; *p=0.01*; 95%CI: 1.27-4.49).

H_3: People with health insurance seek preventive care regularly?

Table 33

Association Between Access to Health Insurance and Regular Seeking of Preventive Care

Access to health insurance	Regular seeking of Preventive Care		Total	*df*	*Chi-Square* $(\chi)^2$ *(p-value)*	OR[μ] (95% CI)
	Yes	No				
	Freq (%) *n*=37	Freq (%) *n*=233	Freq (%) *n*=270			
Yes	12 (21.82)	43 (78.18)	55 (100.0)	1	5.83 *(0.05)**	2.12 (1.03-4.55)
No	25 (11.63)	190 (88.37)	215 (100.0)			

Statistically significant (p<0.05), df=Degree of freedom, [μ]Bivariate logistic regression using Odds Ratio (OR)

A statistical significant association was observed between respondent's access to health insurance and regular seeking of preventive care, as respondents who currently have access to health insurance had a higher statistically significant proportion for seeking of preventive care regularly compared to respondents without access to health insurance (21.82% vs. 11.63%; *p=0.05*). The bivariate logistic regression analysis showed that respondents who currently have access to health insurance were 2.12 times more likely to seek for preventive care regularly compared to respondents without access to health insurance (OR=2.12; *p=0.05*; 95%CI: 1.03-4.55).

Result Limitation

The study would have benefited from further analysis of the effect of sociodemographic and socioeconomic characteristics on health care utilization, simply for the purpose of exploring other possible predictors of nonutilization.

Conclusion

The analytical results explored access to health insurance in a given population and how these influences on healthcare-seeking behavior of a given study population. Overall, 67.0% of the respondents regularly utilize health care services, while the prevalence of any form of health insurance usage for the primary beneficiary was 20.4% and dependents accounted for 42.96%. Having health insurance statistically significantly increased access to healthcare (OR=4.92; *p=0.001*), healthcare services utilization (Utilize=92.73%, Not-Utilized=7.27; OR=8.83; *p=0.001*), dependence in a formal care setting (98.18%; Doctor's Office, Community Clinic, Hospital Clinic, Health Department, Hospital Emergency Room), seeking of preventive care (OR=2.25; *p=0.05*), timely seeking of healthcare services and seeking healthcare at the first sign of a problem (OR=2.39; *p=0.01*).

Chapter 5: Discussion, Conclusion, and Recommendations

There is a relationship between poor health care access and poverty (Kabir et al., 2019; Makoge et al., 2017; Musoke et al., 2014; Oyekale et al., 2016), which is motivating developing countries to implement varying aspects of a health insurance scheme to empower citizens and further enhance health care utilization (Habib, Perveen, & Khuwaja, 2016; Han, 2012; O'Donnell, 2007; Olugbenga, 2017; Pauly, Zweifel, Scheffler, Preker, & Bassett, 2006). With the relationship between poor health care access and poverty in mind, I looked at access to health insurance in Obio community population and its influence on their healthcare-seeking behavior and how this will reflect on their health services utilization.

Prevalence of Healthcare Utilization

Overall, 67.0% of the respondents said they or members of their household regularly utilize health care services. This finding is similar to that of a population-based cross-sectional study conducted in Brazil, although slightly higher, where a prevalence of 77% was observed (Araujo, Silva, Galvao, & Pereira, 2017).It is also comparable to other studies (Bastos, Santos, & Capilheira, 2011; Boing et al., 2010; Mendoza-Sassi & Béria, 2003). According to Bastos et al. (2011) and Boccolini and de Souza Junior (2016), healthcare utilization was observed to increase among those with health insurance. Prevalence ranging from 63% to 94% between Sweden and Spain were observed by Stankunas et al. (2016) and 76.76% in Kenya (Ngugi et al., 2017).

National prevalence in Nigeria for healthcare utilization for the general population has ranged from 76.8% in Edo (Adam & Awunor, 2014), 81.21% in Enugu (Ujunwa et

al., 2014) and 89.5% in Oyo State (Adebayo & Asuzu, 2015), as the majority of the available studies on Healthcare utilization prevalence are related to either utilization for antenatal services, childbirth or postnatal care services (Adewuyi et al., 2017; Adewuyi et al., 2018; David-Wayas et al., 2017; Ogbo et al., 2020; Okonofua et al., 2018; Ononokpono & Odimegwu, 2014; Somefun & Ibisomi, 2016; Takai et al., 2015)

Prevalence of Health Insurance Utilization

The prevalence of any form of health insurance usage for the primary beneficiary was 20.4% while dependents accounted for 42.96%. The primary reason for the low utilization was cost, as a majority of the respondents said it is too expensive, and they cannot afford it, followed by those who said because of their unemployability status. Low health insurance coverage has been observed in most studies conducted in developing countries and the primary reason for not enrolling at first is the cost (Govender et al., 2013; Latunji & Akinyemi, 2018); and on the other hand, Fang et al. (2012) demonstrated that expanding affordable health insurance coverage in other to reduce financial burden in seeking health services, improved seeking healthcare, especially for the poor. Adil et al. (2016) observed that only 32.3% of the respondents had health insurance and financial obstacle was the most reported reason. In a similar population-based study conducted in Brazil, values were much lower as the recorded prevalence was 13.0% (Araujo et al. 2017) and less than 1/10th of the interviewed respondents in a Tanzania study had health insurance (Bintabara et al., 2018).

The financial barriers faced by some of the respondents in the studies cited above could suggest that reducing financial barrier in seeking care through the implementation

of policies for reduced financial burden for universal health coverage can improve access to health care services, which is consistent with results reported by Harris et al. (2011); Dhillon et al. (2012); Adedini et al. (2014); and Wong et al. (2018). Higher prevalence values were found in an Iranian study by Niyas et al (2018), were 95% are under the coverage of health insurance. In two Nigerian studies conducted by Sanusi and Awe (2009) and Akande et al. (2014), a prevalence of 52% and 83% was also observed. This slightly higher variance with the findings, in this case, was because both studies were facility-based and were targeted at health care workers in a tertiary health facility.

In the present study, there was also a significant trend observed in total uptake of healthcare services in the model health facility from 1.2% to 14.4% *(p*=0.001*)*. Similar findings have been noticed (Akande et al., 2014; Chen et al., 2020; Luo et al., 2003; Sanusi & Awe, 2009; Speck et al., 2004). In one study in China, the mean number of attendance increased by over 100% from the commencement of health insurance programs (Chen et al., 2001).

Most of the respondents in the present study (85.56%) go to the clinic/hospital only when they are sick, with an average of three times in the last 12 months. Similar findings were observed in Edo State, Nigeria were almost all (98.8%) of the respondents sought healthcare only when they are ill (Adam & Aigbokhaode, 2018).

Procurement of Health Insurance and Access to Health Care and Health Services Utilization

Researchers have linked health insurance to access to health care and its utilization, which is associated with better health outcomes (Antwi et al., 2015; Bintabara

et al., 2018; Chua & Sommers, 2014; Hsia et al., 2000; Sommers et al., 2013; Sommers et al., 2017; Wallace & Sommers, 2016). I found a significant increase in access to healthcare for those that have procured health insurance, as they were approximately five times more likely to have access to health care services compared to those with little or no health insurance (*OR*=4.92; *p*=0.001), and 8.83 times more likely to utilize healthcare services (Utilize=92.73%, Not-Utilized=7.27; *OR*=8.83; *p*=0.001). These findings were similar to a Ghanaian study by Osei Asibey and Agyemang (2017), who observed that respondents with health insurance statistically significantly utilized healthcare more than those without health insurance, and the bivariate analysis revealed that health insurance status has a positive and significant influence on utilization (*OR*=1.284; *p*=.0010). The lower odds in the Ghanaian study compared to the present study may be as a result of the varying demographic context of the study, as the Ghana study was conducted in four rural communities while the present study in four suburban communities. Closely similar odds from the present study were observed in a South African study, where those with health insurance were 5.41 times more likely to utilize health-care services (*OR*=5.41; *p*<0.001; Abera Abaerei et al., 2017). According to another study in China, the rapid expansion of social health insurance coverage significantly improved healthcare utilization (Wang et al., 2018). Two recent studies in the United States reflected a lack of health care access due to being under-insured; and in one particular study, health insurance was associated with increased utilization of outpatient, inpatient, and emergency department care (Farrell & Gottlieb, 2020; Reynolds & Fisher, 2020).

Erlangga et al. (2019) observed in 32 out of 40 studies that overall health insurance schemes in LMICs significantly improved access to health care utilization. Kim et al. (2013) concluded that good health insurance literacy can enhance health care utilization. Freeman et al. (2008) concluded that health insurance increases utilization and improves health. Two studies in China showed enhanced changes in access to medical services due to improved health insurance coverage from approximately 56% in 2003 to almost 95% in 2011 (Lee et al., 2018; Yip et al., 2012).

Access to Health Insurance and Formal Healthcare Options

I also observed that those with procured health insurance have 29.53 times more dependence in a formal care setting (98.18%; doctor's office, community clinic, hospital clinic, health department, hospital emergency room) compared to informal care (Chemist, Pharmacy and Trado-medicine; 1.82%; *OR*=29.53, *p*=0.001). Findings were similar to Araujo et al. (2017), who showed that physician visits were significantly higher among people with health insurance. Findings in Thailand showed a significant increase in the utilization of formal health care services and simultaneously decreased utilization of informal care (Meemon & Paek, 2018). Other relevant studies assessing the relationship between health insurance and health-seeking behavior has shown similar trend as people with health insurance depended more on formal care services than informal care services (Abrokwah et al., 2019; Agyemang-Duah et al., 2019; Chen et al., 2020). Geng et al. (2018) concluded that health insurance increases healthcare utilization at formal clinics and that health insurance can provide value to different households in seeking appropriate health care services. Ibiwoye and Adeleke (2008) witnessed that access to health

insurance has the potential to promote access to quality health care. Salaudeen and Babatunde (2014) concluded that the formal health insurance scheme led to a 144% increase in the utilization of health services. Freeman et al. (2008) concluded that health insurance substantially improved the use of physician services.

All these showed a need to minimize barriers to the utilization of formal health-care service by increasing affordable health insurance coverage, which in a way can strengthen the health-care system by encouraging universal health coverage. One study in the Abia state of Nigeria saw significant use of patent medicine vendors (73.0%) due to the out-of-pocket spending of respondents (Onyeonoro et al., 2016). The habit of out-of-pocket spending for medical services is prevalent in developing countries and needs to be checked and curtailed to improve Universal Health Coverage (Kumara & Samaratunge, 2016; Okello & Njeru, 2013; Onwujekwe et al., 2010; Woldemichael et al., 2016).

Health Insurance and Seeking Preventive Care

I observed that those who currently have access to health insurance will seek preventive care statistically more when compared to respondents without access to health insurance (23.64% vs. 12.09%; p=0.05). They were 2.25 times more likely to seek preventive care (OR=2.25; $p=0.05$; 95% CI: 1.06-4.74). This finding is similar to that made by Scherer et al. (2017), who observed that persons with little or no health insurance may be less likely to use preventive services and thus delay or avoid preventive care due to cost. Collins et al. (2014) and Smith et al. (2018) also indicated that most participants delayed seeking preventive care due to cost. Tipirneni et al. (2018) showed that persons with no health insurance were more likely to avoid preventive care, and the

reason was associated with knowledge about the value of preventive services. My study did not focus on knowledge concerning preventive care services. Brot-Goldberg et al. (2017) observed that people reduce the use of potentially valuable preventive care when faced with higher cost-sharing due to unavailability of health insurance, which invariably shows that reductions in cost or availability of insurance may increase the use of preventive services; which is also reiterated by Wallace and Sommers (2016). Even though the 23.64% of respondents with health insurance seeking preventive care is low when considered in the context of avoiding catastrophic medical events; however, it is consistent with the finding in other studies where health insurance is newly introduced (Dong W, Gao J, Zhou Z, Bai R, Wu Y, Su M, et al. 2018).

A study conducted in Massachusetts in the United States found evidence that legislation aimed at achieving near-universal health insurance coverage significantly reduced preventable admissions, decreased length of hospital stay and reduced number of in-patient admissions originating from an emergency due to early preventive care sought (Kolstad & Kowalski, 2012). Freeman et al. (2008) concluded that health insurance improved preventive services. Reynolds and Fisher (2020) showed that having health insurance was positively and significantly associated with having a preventive care visit. Reynolds and Fisher also observed that the use of preventive health care services is associated with chronic conditions like hypertension, diabetes, and arthritis, which is in agreement with similar studies (Baicker et al., 2013; Sommers et al., 2016; Wherry & Miller, 2016). While malaria was the most common diagnosis made in the present study, other chronic health conditions were hypertension and diabetes. Adebayo and Asuzu

(2015), Akande et al. (2014), and Sulzbach et al. (2005) detected that malaria, hypertension, and diabetes were the top diseases respondents most seek health care for. In an Iranian and Singaporean study, hypertension and diabetes were the most reason for seeking care (Niyas et al., 2018; Yan et al., 2019).

Access to Health Insurance and Seeking Timely Healthcare

I found that those with access to health insurance seek healthcare more timely compared to those without health insurance, and while those who currently have access to health insurance will seek healthcare averagely in the 3rd month, respondents without access to health insurance will seek healthcare averagely in the 8th month (t=2.01; $p=0.05$). These findings are in agreement with a Tanzanian study by Chomi et al. (2014) who generally observed that health insurance is found to increase the probability of seeking care timely thus reducing delays. In other words, the insured will most likely seek care on time compared to the noninsured. Similar findings have been observed in Jordan (Ekman, 2007), Tanzania (Chomi et al., 2014), Ghana (Osei Asibey & Agyemang, 2017), South Africa (Abera Abaerei et al., 2017), and Nigeria (Abdulkadi & Abdulkadir, 2017). A study by Hsia et. al. (2000), among 31,684 participants showed that those who lack health insurance were the least likely to have seen their healthcare provider within the preceding year. Similarly, in the present study, those with access to health insurance significantly seek healthcare at the first sign of a problem compared to respondents without access to health insurance who seek healthcare after having tried multiple alternatives or as a last resort and suffer in the process. These set of people were also 2.39 times more likely to seek healthcare at the first sign of the problem (OR=2.39; p=0.01).

Conclusion

Procurement of health insurance has been shown to enhance healthcare utilization generally, and increases timely and adequate seeking of healthcare services, which could positively impact the general well-being and health status of the population by minimizing preventable illnesses. While it is difficult to conclude on the overall benefits because of differences in health insurance programs, the promising benefits shown in the present study should be of interest to stakeholders, health experts and the government towards widely implementable policies that will strengthen the national health insurance schemes, make it affordable to further enhance Universal Health Coverage at the national level, as is one of the United Nation's SDGs for 2030 (WHO, 2016).

The findings in this study on enhancement of healthcare access through the access to health insurance provides useful information to the public policy advocates, formulators, and implementers on the importance of good and equitable access to health insurance. As corroborated by several other studies, the assurance of a patient not being stuck with healthcare bills after a health shock improves such patient's access to healthcare (Donfouet et al., 2011; Gustafsson-Wright et al., 2011). Although there was no conclusive finding regarding the impact of health insurance on healthcare utilization in this study, the finding is consistent with the findings in an earlier study in Burkina Faso where such causal effect could not be affirmed (Robyn et al., 2011). The adoption of the recommendations in this study by policy advocates, formulators, and implementers in the universal health insurance arena will contribute to positive social change in Nigeria, where finance is still a major barrier to healthcare access.

Recommendation

Health insurance utilization is poor and could impact the universal health coverage national set target. Given the financial and social implications of poor health insurance utilization, it is recommended that policies in favor of health insurance implementation practices be expanded to all groups. Regular monitoring of the implementation is also recommended to ensure the poor and all vulnerable groups are properly identified, captured, and granted the necessary exemptions. Issues of excessive delay and cost should also be looked into to encourage more participation. Other schemes to further make health care services affordable are encouraged. There is also the need for constant and effective communication to enhance awareness, especially in remote areas on the benefits of enrolling in a national health insurance scheme. It is also critical to increase awareness on the importance of enrollees in the health insurance program to seek preventive care in order to avoid or minimize preventative life-threatening medical conditions.

The NHIS as a national agency in Nigeria should facilitate a broad based discussion with states and local governments on the development and enhancement of community-based health insurance programs that are specific to the local jurisdictions. The organized private sector, particularly the financial institutions and the manufacturing institutions, can also be galvanized by the NHIS to support local health facilities in their immediate operating environment in the provision of equipment and other infrastructure that can subsidize the cost of running such facilities. The contribution of the organized

private sector can be an effective demonstration of corporate social responsibility with substantial tax advantage to the contributors.

Study Limitation

The study presents the common limitations of cross-sectional design, as outcomes were measured at a single point in time, thus making it impossible to establish causality; there is also memory bias due to the inability to recall past activities accurately by the respondents. The effect of sociodemographic and socioeconomic characteristics on health care utilization was not captured and explored in the study. Nigeria is a culturally and religiously diverse country; therefore, exploring the effects of sociodemographic and socioeconomic characteristics on health care utilization will add to the body of literation on the impact of health insurance on health services utilization.

The formal point of care for the respondents in reference to their healthcare utilization is a single health facility built by the government but supported by SPDC. Consequently, this facility has four funding streams namely; government subvention, SPDC support, premiums paid by the subscribers, and out of pocket payments by non-subscribers. These multiple funding streams make this facility unique and thereby more attractive to subscribers, which presents a limitation on the generalization of the findings in that section of the study. The subsidy effect of the SPDC support to this health facility on the insurance premium payable by subscribers could not be determined thereby limiting the generalization of the findings in this study in terms of healthcare utilization.

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Appendix A: Health Care Access and Utilization Survey (HCAUS)

Questions are on both sides of all pages. Be sure to answer all the questions by marking your selected choices with either an "x" in the space, or filling in the blank, or circling your answer.

- **YOUR HOUSEHOLD**

Which Village or Town do you live in?

_____Oginigba, _____ Rumuezeolu, _____Rumuomasi, _____Rumuobiokani

Do you live in a town or village? Yes_____ No_____

If yes, which one? _____

Do you live most of the year in the above town or village? _____Yes _____ No

Total Number of people living in your home _____

Please answer the following about the people living in your home.

1. **Your Gender (Sex) _____**

   Age _____

   Marital Status_____

   Race _____

2. **Your Gender (Sex) _____**

   Age _____

   Marital Status_____

   Race _____

3. **Your Gender (Sex) _____**

   Age _____

   Marital Status_____

   Race _____

4. **Your Gender (Sex) _____**

   Age _____

   Marital Status_____

   Race _____

5. **Your Gender (Sex) _____**

   Age _____

   Marital Status_____

   Race _____

6. **Your Gender (Sex) _____**

   Age _____

   Marital Status_____

   Race _____

7. **Your Gender (Sex) _____**

   Age _____

   Marital Status_____

   Race _____

8. **Your Gender (Sex) _____**

   Age _____

   Marital Status_____

   Race _____

Number of adults (age 18years and over) in household employed outside home _____

Number of adults in household self-employed or in farming _____

Number of adults in household unemployed _____

Number of people in household retired _____

Number of adults with disabilities in household_____

Number of children with disabilities in household _____

Number of people in household attending school (Kindergarten – SSS3 and Higher Institution) _____

Highest grade or level of high school or high institution completed by ADULTS (18+years) in household

Number with less than JSS 3 education_____

Number with some high school education(SSS) ____

Number of high school graduates(SSS3) _____

Number with some higher Institution training _____

Number of two-year college graduates _____

Number of four-year college graduates_ ____

Number with post- graduate training _____

Total household income for the year 2016, before taxes

_____ Less than N100,000

_____ N100,000 – N240,000

_____ N241,000 – N500,000

_____ N501,000 – N1,000,000

_____ N1,000,001 – N2,000,000

_____ N2000,001 – N3,000,000

_____ N3,000,001 – N4,000,000

_____ N4,000,001 – N5,000,000

_____ N5,000,001 – N6,000,000

_____ N6,000,001 or more

How many people in your household have any of the following health problems/illnesses?

Malaria _____ (Number)

Heart disease _____ (Number)

High blood pressure _____ (Number)

Diabetes _____ (Number)

Asthma _____ (Number)

Emphysema _____ (Number)

Other Lung problems _____ (Number)

Arthritis _____ (Number)

Stroke _____ (Number)

HIV/AIDS _____ (Number)

Alcoholism _____ (Number)

Drug Abuse _____ (Number)

Tuberculosis _____ (Number)

Cancer _____ (Number)

Tooth cavities _____ (Number)

Loss of many teeth _____ (Number)

Depression _____ (Number)

Nerves _____ (Number)

Mental Health problems _____ (Number)

Dementia(Memory Loss) _____ (Number)

Parkinson's Disease _____ (Number)

Osteoporosis _____ (Number)

Back problems _____ (Number)

Overweight _____ (Number)

Other health concerns you have:

_____

HEALTH INSURANCE

Do you have health insurance? _____ Yes _____No

Do others in your household have health insurance? _____ Yes _____No

Number of Adults (18yrs+) Yes_____

Number of Adults (18yrs+) No _____

Number of Children (under 18yrs) Yes_____

Number of Children (under 18yrs) No _____

What kind of health insurance? (Mark all that apply)

Number with OBIO_____

Number with NHIS _____

Number with Employer Sponsored _____

Number with Other State-Sponsored CHIP _____

Number with other health insurance coverage (specify type)

_____

Does your health insurance cover prescription medicines? _____ Yes

_____ No

Number of Adults (18yrs and over)covered _____Number of Children (under 18) covered ____-

Does your health insurance cover dental services? _____ Yes _____ No

Number of Adults (18yrs and over)covered _____Number of Children (under 18) covered ____-

Does your health insurance cover vision services/eye glasses? _____ Yes

_____ No

Number of Adults (18yrs and over)covered _____Number of Children (under 18) covered ____-

Why do some people in your household not have health insurance? (Mark all that apply)

Unemployed _____ (Number)

Not offered by employer _____ (Number)

Not eligible through employer _____ (Number)

Can't get because poor health, illness or age _____ (Number)

Too expensive, can't afford _____ (Number)

Don’t believe in insurance _____ (Number)

Healthy don’t need insurance _____ (Number)

Too old for coverage under family plans _____ (Number)

Free/inexpensive care is available _____ (Number)

If you do NOT have health insurance or you consider your health insurance inadequate how does this affect your quality of life? _____not at all _____somewhat _____a great deal

If you do NOT have health insurance, how much could you pay for health insurance premiums? _____

SOURCE AND UTILIZATION OF HEALTH CARE / HEALTH SEEKING BEHAVIOR

How many people in your household have a regular provider of medical care?

Adults with regular provider_____ (Number) Children with regular provider_____ (Number)

Adults without regular provider_____ (Number) Children without regular provider_____ (Number)

Is the provider a (mark all that apply)

Doctor _____; Physician Assistant_____; Nurse Practitioner_____; Others (specify) _____

How many months ago did you last see a:

Doctor, Nurse practitioner or physician assistant _____

Eye doctor _____

Dentist _____

Does your regular provider see you only when you are sick? _____ _ Yes _____No

Does the provider make referrals to other health care providers when needed._____ _ Yes _____No

Does the provider NOT refer you to specialists when you think he or she should? _____ Yes _____No

Do you go to the clinic/hospital only when you are sick? _____ _ Yes _____No

In the last 12months, how many times have you been to the clinic/hospital? _____ (Number)

Does the provider refer you too often to specialists? _____ _ Yes _____No

Has your insurance ever denied you health care that was recommended by your provider?

_____ Yes _____No; If yes, how many times_____

Where does your household/family go **most often for** medical care? **(Mark only one)**

_____ Doctor's Office

_____ Hospital Clinic

_____ Community Clinic

_____ Hospital Emergency Room

_____ Health Department

_____ Veterans Hospital or Clinic

_____ Other (Specify)

How many times in the last year has anyone in your household used a Hospital Emergency Room? _____

How long does it normally take to travel to your regular health care provider?

_____hours, _____Minutes

How do you usually get to you regular health care provider?

_____ Drive own car **_____ Taxi or Public Transportation**

_____ Someone drives you **_____ Walk**

_____ Drive someone else's car **_____ Other (Identify)**

How much of a problem is it for you to get to your health provider's clinic/office?

____No problem _____Somewhat of a problem _____Big problem

Do you see your health care provider on a regular schedule (for example every 3-6 months?) _____ Yes ___No

Do your children under age 18years see their health care provider on a regular schedule? _____ Yes ____No

When do you usually seek health care if you suspect a health problem/illness?

_____ At the first sign of a problem

_____ After trying to take care of the problem without success

_____As a last resort

_____I don't get health care, I suffer it out

When do you usually seek health care for your children if you suspect a health problem/illness?

_____ At the first sign of a problem

_____ After trying to take care of the problem without success

_____As a last resort

_____I don't get health care, I suffer it out

ACCESS – LEVEL OF SATISFACTION

Think about the last few times you visited your health care provider. How much of a problem did you have with: (Please circle your response)

How long have you waited between making an appointment and the day of your visit? None Small Big

How long have you waited in the waiting room? None Small Big

How long you waited in the exam room before the provider saw you? None Small Big

Think about the last few times you visited your health care provider. How would you rate the following:

Courtesy and respect shown by the health care provider?	**Poor**	**Fair**	**Good**	**Excellent**
Carefulness of the exam and treatment you received?	**Poor**	**Fair**	**Good**	**Excellent**
How well you understood the healthcare provider's speech and/or accent?	**Poor**	**Fair**	**Good**	**Excellent**
How well the health care provider listened to you?	**Poor**	**Fair**	**Good**	**Excellent**
How well the health care provider understood you?	**Poor**	**Fair**	**Good**	**Excellent**
How well the health care provider explained your health problem in terms/language you could understand?	**Poor**	**Fair**	**Good**	**Excellent**
How well were your questions answered?	**Poor**	**Fair**	**Good**	**Excellent**
How well the health care provider figured out what was wrong and what needed to be done?	**Poor**	**Fair**	**Good**	**Excellent**
How well the health care provider checked on your progress, gave you test results, or reminded you to get follow-up care?	**Poor**	**Fair**	**Good**	**Excellent**
Advise on how to stay healthy and keep from getting sick?	**Poor**	**Fair**	**Good**	**Excellent**
Information about preventive care, such as blood pressure checks, breast exams, pap smears, rectal	**Poor**	**Fair**	**Good**	**Excellent**

exams, cholesterol checks and immunizations?

Think about the last few times you visited your health care provider, how much of a problem did you have with:

The hours when the office was open for appointments?	**Big**	**Small**	**None**
Getting care for sickness or injury during evenings and weekends?	**Big**	**Small**	**None**
Getting phone calls to providers answered without too many delays or transfers?	**Big**	**Small**	**None**
Having phone calls returned by a health care provider or nurse?	**Big**	**Small**	**None**
Understanding what the health care provider said?	**Big**	**Small**	**None**

In the past year, have you seen a medical care provider when you were NOT sick or injured for routine health checks and/or health promotion (for example flu shots, pap smears, blood pressure check)?

_____ Yes (If yes, how many times? _____) _____No

How much confidence do you have in your health care provider?

Little or no confidence Some confidence A great deal of confidence

In the past year, did you or anyone in your household change the place where you usually go for medical care?

_____ Yes (If yes, how many times? _____) _____No

If yes, what was the main reason you changed your usual source of care? (Mark only 1)

_____ Moved residence

_____ Changed jobs

_____ Employer changed insurance coverage

_____ Previous source of care treated me rudely

_____ Former source of care left area/retired

_____ Dissatisfied with previous source of care

_____ Other (Specify)

_____Lost insurance coverage

_____ Owed money to previous provider

_____ Medical needs changed

_____ Provider stopped using hospital I Iike

_____ Liked new source of care matter

_____ Became eligible for Medicare

In the past year, did you or anyone in your household change the place where you usually go for medical care?

_____ Yes (If yes, how many times? _____) _____No

If yes, why? (Mark all that apply)

_____ Couldn't afford it

_____ No Insurance

_____ Not serious enough problem

_____ Wait too long in clinic/office

_____ Difficulty getting appointment

_____ Do not like/trust/believe providers

_____ Not serious enough problem

_____ Other (Specify)

_____ No provider available

_____ Did not know where to go

_____ No way to get there

_____ Hours not convenient

_____ Speak a different language

_____ Afraid to seek care

In the past year, did a lack of insurance or money keep anyone in your household from getting medical care?

_____ Yes (If yes, how many times? _____) _____No

In the past year, did anyone in your household put off getting medical care because of worry about the cost?

_____ Yes (If yes, how many times _____) _____No

In the past year, did anyone in your household need medicine they couldn't get?

_____ Yes (If yes, how many times _____) _____No

In the past year, was there a time when someone in your household needed dental care but couldn't get it?

_____ Yes (If yes, how many times _____) _____No

In the past year, was there a time when someone in your household needed glasses but could not get them?

_____ Yes (If yes, how many times _____) _____No

In the past year, was there a time when someone needed mental health care but couldn't get it?

_____ Yes (If yes, how many times _____) _____No

How much of a problem do you have with paying for;

Health Insurance	**No problem**	**Somewhat of a problem**	**Big problem**
Medication/ prescriptions	**No problem**	**Somewhat of a problem**	**Big problem**
Health provider office visits	**No problem**	**Somewhat of a problem**	**Big problem**
Dental Care	**No problem**	**Somewhat of a problem**	**Big problem**
Eye Care	**No problem**	**Somewhat of a problem**	**Big problem**

HEALTH BEHAVIORS

During the last 12months, have you had a flu shot? _____ Yes ___No

If you are over 65, have you ever had pneumonia shot? _____ Yes ___No

Does anyone in your household use tobacco? _____ Yes ___No

If yes, what form tobacco? _____ Smoke cigarettes

_____ Smoke pipe or cigars

_____Chew tobacco or dip snuff

Does anyone in your household use alcohol? _____ Yes ___No

If yes, how frequently (a drink equals 1 can of beer, or a glass of wine, or one ounce of spirits)?

____1 drink a week or less _____2-3 drinks a week _____More than 3 drinks a week

Does you exercise regularly (increased heart rate & breathing for at least 20minutes)?

_____ Yes ___No If yes, how often? _____ Once a week

_____ 2-3 times a week

_____ More than 3 times a week

Do you regularly use car seat restraints (seats belts)? _____ Yes ___No

In you have children, do your children regularly use a car seat restraint or a special car seat for children?

_____ Yes _____No

How would you describe your current state of health? _____ Excellent

_____ Good

_____ Fair

_____ Poor

How much of a problem do you think lack of health insurance is in Nigeria?

____No problem _____Somewhat of a problem _____Big problem

Because your comments are so important for improving health care, please take a few minutes to answer the following questions.

I am satisfied with the quality of my health care _____ Yes ____No if No, please explain below:

What do you like about your current health care?

What do you dislike about your current health care?

How would you fix the health care problems listed above?

Other Comments

Thank you for taking the time and effort to complete this questionnaire!!

Your input and participation are appreciated.

Appendix B: Access to Health Care Survey

Questions are on both sides of all pages. Be sure to answer all the questions by marking your selected choices with either an "x" in the space, or filling in the blank, or circling your answer.

- **YOUR HOUSEHOLD**

Which city or county do you live in?

_____Bland; _____Bristol; _____Buchanan; _____Carroll; _____Dickenson; _____Galax; _____Grayson; _____Lee; _____Norton; _____Russell; _____Scott; _____Smyth; _____Tazewell; _____Washington; _____Wise; _____Wythe

Do you live in a city or town? Yes_____ No_____ If yes, which one? _____

Do you live most of the year in the above city/county? _____Yes _____ No

Total Number of people living in your home _____

Please answer the following about the people living in your home.

9. Your Gender (Sex) _____

   Age _____

   Marital Status_____

   Race _____

10. Your Gender (Sex) _____

    Age _____

    Marital Status_____

    Race _____

11. Your Gender (Sex) _____

    Age _____

    Marital Status_____

    Race _____

12. Your Gender (Sex) _____

    Age _____

    Marital Status_____

    Race _____

13. Your Gender (Sex) _____

    Age _____

    Marital Status_____

    Race _____

14. Your Gender (Sex) _____

    Age _____

    Marital Status_____

    Race _____

15. Your Gender (Sex) _____

    Age _____

    Marital Status_____

    Race _____

16. Your Gender (Sex) _____

    Age _____

    Marital Status_____

    Race _____

Number of adults (age 18years and over) in household employed outside home _____

Number of adults in household self-employed or in farming _____

Number of adults in household unemployed _____

Number of people in household retired _____

Number of adults with disabilities in household_____ Number of children with disabilities in household _____

Number of people in household attending school (Kindergarten – 12 and College) _____

Highest grade or level of high school or college completed by ADULTS (18+years) in household

Number with less than 8th grade education_____

Number with some high school education____

Number of high school graduates _____

Number with some college training _____

Number of two-year college graduates _____

Number of four-year college graduates_ ____

Number with post- graduate training _____

Total household income for the year 2000, before taxes

_____ Less than $10,000

_____ $10,000 - $14,000

_____ $15,000 - $19,999

_____ $20,000 - $24, 999

_____ $25,000 - $29, 999

_____ $30,000 - $39, 999

_____ $40,000 - $49, 999

_____ $50,000 - $59, 999

_____ $60,000 - $69, 999

_____ $70,000 or more

How many people in your household have any of the following health problems/illnesses?

Heart disease	_____ (Number)	Cancer	_____ (Number)
High blood pressure	_____ (Number)	Tooth cavities	_____ (Number)
Diabetes	_____ (Number)	Loss of many teeth	_____ (Number)
Asthma	_____ (Number)	Depression	_____ (Number)
Emphysema	_____ (Number)	Nerves	_____ (Number)
Other Lung problems	_____ (Number)	Mental Health problems	_____ (Number)
Arthritis	_____ (Number)	Dementia(Memory Loss)	_____ (Number)
Stroke	_____ (Number)	Parkinson's Disease	_____ (Number)
HIV/AIDS	_____ (Number)	Osteoporosis	_____ (Number)
Alcoholism	_____ (Number)	Back problems	_____ (Number)
Drug Abuse	_____ (Number)	Overweight	_____ (Number)

Other health concerns you have:

_____

_____

HEALTH INSURANCE

Do you have health insurance? _____ Yes _____No

Do others in your household have health insurance? _____ Yes _____No

Number of Adults (18yrs+) Yes_____	Number of Children (under 18yrs)
Number of Adults (18yrs+) No _____	Yes_____

Number of Children (under 18yrs) No

_____

What kind of health insurance? (Mark all that apply)

Number with Medicare_____

Number with Medicaid _____

Number with Employer Sponsored _____

Number with Champus _____

Number with Blue Cross/Blue Shield

_____

Number with Commonwealth Children's Health Insurance Program(CMSIT/FAMIS)

_____

Number with other health insurance coverage (specify type)

_____

Does your health insurance cover prescription medicines? _____ Yes

_____ No

Number of Adults (18yrs and over)covered _____Number of Children (under 18) covered ____-

Does your health insurance cover dental services? _____ Yes _____ No

Number of Adults (18yrs and over)covered _____Number of Children (under 18) covered ____-

Does your health insurance cover vision services/eye glasses? _____ Yes _____ No

Number of Adults (18yrs and over)covered _____Number of Children (under 18) covered ____-

Why do some people in your household not have health insurance? (Mark all that apply)

Unemployed _____ (Number)

Not offered by employer _____ (Number)

Not eligible through employer _____ (Number)

Can't get because poor health, illness or age _____ (Number)

Too expensive, can't afford _____ (Number)

Don't believe in insurance _____ (Number)

Healthy don't need insurance _____ (Number)

Too old for coverage under family plans _____ (Number)

Free/inexpensive care is available _____ (Number)

If you do NOT have health insurance or you consider your health insurance inadequate how does this affect your quality of life? _____not at all _____somewhat _____a great deal

If you do NOT have health insurance, how much could you pay for health insurance premiums? _____

SOURCE OF HEALTH CARE

How many people in your household have a regular provider of medical care?

Adults with regular provider_____ (Number) Children with regular provider_____ (Number)

Adults without regular provider_____(Number) Children without regular provider_____ (Number)

Is the provider a (mark all that apply)

Doctor _____; Physician Assistant_____; Nurse Practitioner_____; Others (specify)_____

How many months ago did you last see a:

Doctor, Nurse practitioner or physician assistant _____

Eye doctor _____

Dentist _____

Does your regular provider see you only when you are sick? _____ _ Yes

_____No

Does the provider make referrals to other health care providers when needed._____ _ Yes _____No

Does the provider NOT refer you to specialists when you think he or she should? _____ Yes _____No

Does the provider refer you too often to specialists? _____ _ Yes _____No

Has your insurance ever denied you health care that was recommended by your provider?

_____ Yes _____No; If yes, how many times_____

Where does your household/family go **most often for** medical care? **(Mark only one)**

_____ Doctor's Office

_____ Community Clinic

_____ Health Department

_____ Other (Specify)

_____ Hospital Clinic

_____ Hospital Emergency Room

_____ Veterans Hospital or Clinic

How many times in the last year has anyone in your household used a Hospital Emergency Room? _____

How long does it normally take to travel to your regular health care provider?

_____hours, _____Minutes

How do you usually get to you regular health care provider?

_____ Drive own car

_____ Someone drives you

_____ Drive someone else's car

_____ Taxi or Public Transportation

_____ Walk

_____ Other (Identify)

How much of a problem is it for you to get to your health provider's clinic/office?

____No problem _____Somewhat of a problem _____Big problem

Do you see your health care provider on a regular schedule (for example every 3-6 months?) _____ Yes ___No

Do your children under age 18years see their health care provider on a regular schedule?

_____ Yes ____No

When do you usually seek health care if you suspect a health problem/illness?

_____ At the first sign of a problem

_____ After trying to take care of the problem without success

_____As a last resort

_____I don't get health care, I suffer it out

When do you usually seek health care for your children if you suspect a health problem/illness?

_____ At the first sign of a problem

_____ After trying to take care of the problem without success

_____As a last resort

_____I don't get health care, I suffer it out

ACCESS – LEVEL OF SATISFACTION

Think about the last few times you visited your health care provider. How much of a problem did you have with: (Please circle your response)

How long have you waited between making an appointment and the day of your visit?

None Small Big

How long have you waited in the waiting room? None Small Big

How long you waited in the exam room before the provider saw you? None Small Big

Think about the last few times you visited your health care provider. How would you rate the following:

Courtesy and respect shown by the health care provider?	Poor	Fair	Good	Excellent
Carefulness of the exam and treatment you received?	Poor	Fair	Good	Excellent
How well you understood the healthcare provider's speech and/or accent?	Poor	Fair	Good	Excellent
How well the health care provider listened to you?	Poor	Fair	Good	Excellent
How well the health care provider understood you?	Poor	Fair	Good	Excellent
How well the health care provider explained your health problem in terms/language you could understand?	Poor	Fair	Good	Excellent
How well were your questions answered?	Poor	Fair	Good	Excellent
How well the health care provider figured out what was wrong and what needed to be done?	Poor	Fair	Good	Excellent
How well the health care provider checked on your progress, gave you test results, or reminded you to get follow-up care?	Poor	Fair	Good	Excellent
Advise on how to stay healthy and keep from getting sick?	Poor	Fair	Good	Excellent
Information about preventive care, such as blood pressure checks, breast exams, pap smears, rectal exams, cholesterol	Poor	Fair	Good	Excellent

checks and immunizations?

Think about the last few times you visited your health care provider, how much of a problem did you have with:

The hours when the office was open for appointments?	Big	Small	None
Getting care for sickness or injury during evenings and weekends?	Big	Small	None
Getting phone calls to providers answered without too many delays or transfers?	Big	Small	None
Having phone calls returned by a health care provider or nurse?	Big	Small	None
Understanding what the health care provider said?	Big	Small	None

In the past year, have you seen a medical care provider when you were NOT sick or injured for routine health checks and/or health promotion (for example flu shots, pap smears, blood pressure check)?

_____ Yes (If yes, how many times? _____) _____No

How much confidence do you have in your health care provider?

Little or no confidence Some confidence A great deal of confidence

In the past year, did you or anyone in your household change the place where you usually go for medical care?

_____ Yes (If yes, how many times? _____) _____No

If yes, what was the main reason you changed your usual source of care? (Mark only 1)

_____ Moved residence
_____ Changed jobs
_____ Employer changed insurance coverage
_____ Previous source of care treated me rudely
_____ Former source of care left area/retired
_____ Dissatisfied with previous source of care
_____ Other (Specify)

_____Lost insurance coverage
_____ Owed money to previous provider
_____ Medical needs changed
_____ Provider stopped using hospital I Iike
_____ Liked new source of care matter
_____ Became eligible for Medicare

In the past year, did you or anyone in your household change the place where you usually go for medical care?

_____ Yes (If yes, how many times? _____) _____No

If yes, why? (Mark all that apply)

_____ Couldn't afford it
_____ No Insurance
_____ Not serious enough problem
_____ Wait too long in clinic/office
_____ Difficulty getting appointment
_____ Do not like/trust/believe providers
_____ Not serious enough problem
_____ Other (Specify)

_____ No provider available
_____ Did not know where to go
_____ No way to get there
_____ Hours not convenient
_____ Speak a different language
_____ Afraid to seek care

In the past year, did a lack of insurance or money keep anyone in your household from getting medical care?

_____ Yes (If yes, how many times? _____) _____No

In the past year, did anyone in your household put off getting medical care because of worry about the cost?

_____ Yes (If yes, how many times _____) _____No

In the past year, did anyone in your household need medicine they couldn't get?

_____ Yes (If yes, how many times _____) _____No

In the past year, was there a time when someone in your household needed dental care but couldn't get it?

_____ Yes (If yes, how many times _____) _____No

In the past year, was there a time when someone in your household needed glasses but could not get them?

_____ Yes (If yes, how many times _____) _____No

In the past year, was there a time when someone needed mental health care but couldn't get it?

_____ Yes (If yes, how many times _____) _____No

How much of a problem do you have with paying for;

Health Insurance	No problem	Somewhat of a problem	Big problem

Medication/ prescriptions	No problem	Somewhat of a problem	Big problem
Health provider office visits	No problem	Somewhat of a problem	Big problem
Dental Care	No problem	Somewhat of a problem	Big problem
Eye Care	No problem	Somewhat of a problem	Big problem

HEALTH BEHAVIORS

During the last 12months, have you had a flu shot? _____ Yes ___No

If you are over 65, have you ever had pneumonia shot? _____ Yes ___No

Does anyone in your household use tobacco? _____ Yes ___No

If yes, what form tobacco? _____ Smoke cigarettes

_____ Smoke pipe or cigars

_____Chew tobacco or dip snuff

Does anyone in your household use alcohol? _____ Yes ___No

If yes, how frequently (a drink equals 1 can of beer, or a glass of wine, or one ounce of spirits)?

____1 drink a week or less _____2-3 drinks a week _____More than 3 drinks a week

Does you exercise regularly (increased heart rate & breathing for at least 20minutes)?

_____ Yes ___No If yes, how often? _____ Once a week

_____ 2-3 times a week

_____ More than 3 times a week

Do you regularly use car seat restraints (seats belts)? _____ Yes ___No

In you have children, do your children regularly use a car seat restraint or a special car seat for children?

_____ Yes _____No

How would you describe your current state of health? _____ Excellent

_____ Good

_____ Fair

_____ Poor

How much of a problem do you think lack of health insurance is in Nigeria?

____No problem _____Somewhat of a problem _____Big problem

Because your comments are so important for improving health care, please take a few minutes to answer the following questions.

I am satisfied with the quality of my health care _____ Yes ____No if No, please explain below:

What do you like about your current health care?

What do you dislike about your current health care?

How would you fix the health care problems listed above?

Other Comments

Thank you for taking the time and effort to complete this questionnaire!!

Your input and participation are appreciated.