ADOPTION OF HEALTH INSURANCE SCHEME AND HEALTH-SEEKING BEHAVIOUR AMONG EMPLOYEES OF PRIVATE ORGANISATIONS IN ENUGU STATE, NIGERIA

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CERTIFICATION

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DEDICATION

This research is dedicated to my best friend, Jesus Christ and my beloved mother, Mrs Gloria Ugbomma Nwankwo of blessed memory.

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ABSTRACT

The Health Insurance Scheme (HIS), a means of financing medical care among employees globally, is designed to subsidise medical costs. In Nigeria, HIS is inadequately implemented and this affects access to healthcare among employees, particularly in the private sector. Existing studies have mainly focused on biomedical aspects of HIS in the public sector with scant attention given to the social factors associated with its utilisation among employees of private organisations, including Enugu State, where the scheme has officially been adopted by private sector organisations. This study, therefore, examined the extent to which HIS is utilised; influence of its adoption on health-seeking behaviour; treatment pathways of enrollees; gender differentials in its utilisation; and the challenges reported by private sector employers that have enlisted in the scheme in Enugu State.

The Structural Functionalist Theory and Health Belief Model served as framework, while the cross-sectional survey design was employed. The purposive sampling technique was used to select one organisation from each of the manufacturing and service industries that have adopted HIS. A sample of 457 respondents were drawn using Yamane's formula. Simple random sampling was used to proportionately administer semi-structured questionnaire to employees in manufacturing (369) and service (88) industries. Twenty-four in-depth interviews were conducted with employees in manufacturing (14) and service (10) industries. Sixteen key informant interviews were conducted with management staff of manufacturing (5) and service (3) industries. Four healthcare providers from National Health Insurance Agency (NHIA) accredited hospitals, two managers of health maintenance organisations, and two NHIA executive officers. The quantitative data were analysed using descriptive statistics, Logistic regression and T-test at $p \leq 0.05$, while the qualitative data were content-analysed.

The respondents' age was 38±2.4 years; 77.4% had tertiary education and 70.8% were married. Forty-six percent partially utilised and 32.0% adequately utilised HIS. The extent to which HIS was adequately utilised was significantly associated with respondents' aged ≥50 years (OR=4.87), tertiary education (OR=3.53) and those who were married (OR=2.57). Influence of HIS on health-seeking behaviour was significantly associated with senior staff (OR=1.57) and those who earned ≥₦100, 000 (OR=4.04) as monthly income. The treatment pathways for employees started with visit to HIS hospitals (61.2%), home therapy (23.2%), visit to hospitals without HIS (12.5%), faith/religious centres (2.9%) and traditional medical centre (0.2%). Some of those who did not visit HIS accredited hospitals at the onset of their ill-health resorted to visiting HIS accredited hospitals when their condition deteriorated. Female employees (52.6%) were more likely to seek healthcare through HIS than their male counterparts (47.4%) after enrolling in HIS plan. Private sector employers' challenges in the adoption of HIS included payment of premium, abuse of the scheme by some employees, complex bureaucratic structure of the scheme and employees' inability to access certain treatments due to their organisations' chosen HIS plan.

Socio-organisational and individual factors influenced the adoption of health insurance scheme and the health seeking-behaviour of private sector employees in Enugu State, Nigeria. Health maintenance officials, Healthcare providers and other stakeholders should therefore increase awareness about the benefits of utilising health insurance scheme by private sector employees in order to reduce out-of-pocket health expenditure.

Keywords: Healthcare financing, Private sector organisation employees in Nigeria, Treatment pathways, Out-of-pocket health expenditure, Health insurance

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LIST OF ABREVIATIONS

AU	African Union
CS	Caesarean Section
FGD	Focus Group Discussion
HCP	Health Care Professionals
HIS	Health Insurance Scheme
HIV	Human Immunodefficiency Virus
HMO	Health Maintenance Organisation
IDI	In-Depth Interview
KII	Key Informant Interview
NHIA	National Health Insurance Agency
NHIS	National Health Insurance Scheme
OECD	Organisation for Economic Cooperation and Development
OECD	Organisation for Economic Co-operation and Development
OPEs	Out-of-Pocket Expenses
PHC	Primary Health Centres
PHIS	Private Health Insurance Scheme
SDGs	Sustainable Development Goals
SPSS	Statistical Package for Social Sciences
TPAs	Third Party Administrators
UBC	University of British Columbia
UHC	Universal Health Coverage
UI/SSHREC	University of Ibadan's Social Sciences Ethical Review Committee
UNICEF	United Nations Children's Fund
USAID	United Agency for International Development
WHO	World Health Organisation

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

There is a growing interest among less developed countries to enhance the uptake of health insurance scheme structures. This is because several individuals including employees are impoverished globally due to exorbitant cost of healthcare services. Research shows that more than 5.7 million deaths occur due to lack of quality health care (Goldschmidt and Muhammad, 2019). Moreover, about 2.9 million deaths are linked to poor access to health care services (Goldschmidt and Muhammad, 2019). The dynamics of social security systems to improve health issues in the more developed countries has resulted in improved access and promotion of universal health coverage (UHC) for citizens. This is explained following the low spending health insurance scheme in Germany, Austria and the Netherlands that have led to a better path of universal health coverage for their citizens (Daw and Sommers, 2019). India could be a reference point on how health insurance may be customised to suit the peculiarity of the private sector in sub-Saharan Africa (Khetrapal, 2016).

Health insurance scheme reflects the indemnification or protection of individuals against high medical expenses, incurred as a result of ill-health or injury. It is also established as a welfare package to encourage workers' productivity through a pool of fund from employer and employee as the case may be. The policy is used to hedge against financial burdens that may occur unexpectedly. In the view of Allcock and Sandhu (2019), health insurance scheme utilisation indicates an access to health promotional tool that reduces high medical bill. In different African societies, stakeholders at various levels have attempted to promote the well-being of the masses through increased accessibility to health care resources using workable measures, including the domestication of health insurance scheme (Alawode and Adewole, 2021).

In sub-Saharan Africa, the low adoption of health insurance scheme stems from the lack of social acceptability and economic sustainability, resulting probably from the wholesome adoption of the Western Model of health insurance scheme which seems to be incongruent with the sociocultural, economic and political make-up of the region (Olugbenga, 2017). In Nigeria, the adoption of health insurance scheme has remained a complex issue. Despite Universal Health Coverage Campaign and the establishment of the National Health Insurance Scheme in 2005, the implementation of health insurance scheme plan which is meant to provide health care access to all is still a mirage in the nation (Adewole and Osungbade, 2016). Also, in support of the Sustainable Developmental Goal 3 (SDG 3) which target at achieving universal health coverage and health care accessibility; the establishment of National Health Insurance Scheme at the federal level, launched in 2005, aiming to provide access to health care utilisation, particularly among the low-income earners through reduction of out-of-pocket expense remains unachieved (Owumi, Adeoti and Taiwo, 2013; Adamu, 2019).

The Nigerian health insurance scheme, particularly, was designed in a way that the State governments could adopt and implement the programme within their jurisdictions. The designing of the scheme covers employees in both public and private sectors. However, report shows that since the official commencement of the National Health Insurance scheme, only 19 of the 36 States and Abuja have adopted the scheme at the State level (WHO Data Base, 2019). In the South-East Geopolitical Zone, Enugu is the only state that has fully adopted the programme (WHO Data Base, 2019). The report added that while a good number of public ministries and parastatals have enrolled employees in the scheme, many private organisations are yet to do so.

Improving the health challenges of the private organisation' employees is essential because the adoption of health insurance scheme in private organisations could influence health-seeking behaviour of employees (WHO, 2017; Leandro, Andrew and Mehmet, 2017). Health-seeking behaviour which encompasses all processes involved in getting relief of ill-health by individuals is also paramount in the pursuit of universal health coverage and attainment of health sustainable development goals in Nigeria. It can also influence decisions in choice of pathways to health care among employees (Cardina, Jones, Kumar and Martins, 2018).

Olanrewaju, Ajayi, Loromeke and Adekunle (2019) revealed that gender differential is equally essential in health-seeking behaviours of employees in private sector. Research shows that the pathways of care have a significant effect on health outcome of employees who utilised health insurance scheme when compared with those who did not (Osei Asibey and Agyemang, 2017). The variation further cuts across the socio-economic status of employees. For instance, employees with higher education and income are more likely to utilise the scheme than those with lower statuses (Raghupathi and Raghupathi 2020; Carman, 2020).

Galvanising the factors that influence employees' health-seeking behaviour and the purpose for utilising health insurance scheme in the private sector has a sociological undertone that may affect the terrene dimensions of health seeking vis-à-vis pathways of available health care services. This may influence the attainment of universal health coverage agenda, not only in Enugu State but also in Nigeria. Beside this, verifying the processes involved in taking action towards a health insurance scheme adoption, the interaction existing within the health care structures, the complexities of funding mechanisms, the weakness of government policy on health insurance scheme adoption, the gender differentials and the challenging experiences of the employers call for a critical scientific investigation and discourse. This is aimed at understanding the contextualisation and peculiarity of the informal sector in Nigeria.

However, there is paucity of research on the relationship between health insurance scheme adoption and health-seeking behaviour of employees in private sector, especially in Nigeria. The understanding of the issues surrounding this association, and how it affects employees' utilisation of health insurance scheme is crucial for policy action. The study, therefore, examined how the adoption of health insurance scheme influenced health-seeking behaviour among employees of private organisations in Enugu State, Nigeria.

1.2 Statement of the Problem

In most countries of the world, health security for citizens has been problematic over the years, leading to a morbidity rate of 60% or more (Asakitikpi, 2019). The sub-Sahara African countries experience great decline in healthcare accessibility due to high medical cost and this affects the well-being of the masses (Alawode and Adewole,

2021). In Nigeria, despite the country's self-acclamation as a nation with fast-growing economy in Africa, and the establishment of National Health Insurance Scheme (NHIS) as a tool to reducing high medical bill, Nigeria is still grappling with the sustainable developmental goal (SDG) of promoting health for all (Allcock, Young and Sandhu, 2019). Also, despite contributions from government and international organisations to improve the adoption of health insurance scheme in Nigeria, the country still faces huge setbacks with enormous challenges perverting the adoption of health insurance scheme and uptake of appropriate health seeking behaviours, especially in private sectors (National Population Commission, 2018; Alawode and Adewole, 2021).

Past studies on health insurance scheme utilisation had largely focused on issues related to evaluation, impact, review, expansion, awareness, access, policy, and quality of the scheme (Mwaura 2012; Spaan 2012; Atinga 2012; Adeyemi 2013; Aryeetey 2016; Fenny 2018; Sood 2018; Okoro 2018; Alawode and Adewole, 2021). However, little attention has been given to examining the association between adoption of health insurance scheme and health-seeking behaviours of employees in private sector, particularly in Nigeria where access to health care is limited. Some employees in the private sector are also ignorant of the benefits of the scheme, hence not utilised the programme (Lagarde and Palmar, 2016). The non-utilisation of a health insurance scheme could trigger financial distress in times of health need, especially when such requires costly medical procedure (Musoke, Boynton, Butler and Musoke, 2014). It can also drive an employee into poverty due to out-of-pocket expense (Olugbenga, 2017).

Alawode and Adewole (2021) revealed that for sixteen years now after the launching of the National Health Insurance Scheme in Nigeria, only 5% of Nigerians are insured; 70% still finance health out of pocket. The implication is that there is low adoption of health insurance scheme among Nigerians, especially among those in the private sector. It also implies poor health-seeking behaviour because non-uptake of health insurance scheme could promote negative health-seeking behaviour.

While numerous studies linked micro level constituents that affect health insurance scheme uptake as family size, wealth status, marital status, age, geographical location and level of education (Adebola and Olukemi, 2020), the Western Africa has suffered great impediments due to contextual issues like disease outbreak and political instability (Yates, Orji, Gureje, Oludipe and Ndili, 2020). For these reasons, universal health

coverage in these countries seem baffling. Al-Mansur, Lawal, Tijani, Ademije and Ogunleke (2023) discovered that lack of adequate funding in health care sector contributes a major setback in Nigeria and hinders the progress of UHC. Beside these, the country's health budget of 5.3% is below the recommended 15% by the African Union on health sector allocation (Al- Mansur *et al*, 2023).

Universal Health Coverage means that all citizens are exposed to a complete range of quality health care services irrespective of their location and time they need them, without funding constraints (WHO, 2023). This therefore encompasses essential services ranging from health promotion, health prevention, treatment, rehabilitation and palliative care. The UHC goal is expressed in the United Nations 2030 as part of sustainable developmental goal (SDGs3) (Wong, Allotey and Reidpath, 2016). As such, the linking factor between the two is equitable health, socio-economic development, risk protection on finance and equity in accessibility of essential health care services.

Specifically, in Nigeria, out-of-pocket health care spending among employees inhibits the achievement of UHC. Despite the 2022 enactment of new act which established the National Health Insurance Authority (NHIA) and made HIS compulsory for every citizen and legal residents both in the formal and informal sectors of the economy, evidence still show poor policy sustainability (Onyemachi and Ezebunwa, 2022). Insuring employees in the informal sector which has more than 80% population (Adenuga, 2021) into state social health insurance is still a major problem of the new act as it did not establish practicable and realistic way of enrolment (Onyemaechi and Ezebunwa, 2022).

Fulfilling the United Nations Sustainable Developmental Goal 3 is imperative in sustaining development in Nigeria and in the globe as improvement in health standard positively affects all other aspect of development. Presently, in measuring progress towards achieving SDGs, Nigeria is ranked 139 out of 193 members (Arokodare, 2022). With this, it might be difficult to achieve the SDG3 target by 2030. The present study therefore examined adoption of health insurance scheme and health-seeking behaviour among employees of private organisations in Enugu State, Nigeria.

1.3 Research Questions

The following research questions guided this study:

i. To what extent do employees in the selected private organisations utilise health insurance scheme?

ii. What influence does adoption of health insurance scheme have on health-seeking behaviour of employees in private organisations?

iii. What are the treatment pathways of employees utilising health insurance scheme in private organisations?

iv. Are there gender differentials in the adoption of health insurance scheme among employees in private organisations?

v. What are the challenges and experiences of employers in the adoption of health insurance scheme in the selected private organisations?

1.4 Objectives of the Study

The general objective of this study was to examine the adoption of health insurance scheme and health-seeking behaviour of employees in private organisations in Enugu State, Nigeria.

The specific objectives of the study was to:

i. Investigate the extent to which health insurance scheme is utilised by employees in selected private organisations in Enugu State.

ii. Examine the influence of the adoption of health insurance scheme on health-seeking behaviour of employees in selected private organisations.

iii. Assess the treatment pathways of employees utilising health insurance scheme in selected private organisations.

iv. Examine gender differentials in the adoption of health insurance scheme among employees in selected private organisations.

v. Examine the challenges and experiences of employers in the adoption of health insurance scheme in the selected private organisations.

1.5 Scope of the Study

The study covers the adoption of health insurance scheme, the health-seeking behaviour and the moderating role of gender in the process. It is limited to employees of private organisations in Enugu State, Nigeria. The analysis included assessment of employees' health-seeking behaviour within private organisations who have adopted health insurance scheme. Attention was given to all efforts undertaken to maintain good health by employees. Also, it analysed all the treatment pathways utilised by the employees in private organisations.

1.6 Significance of the Study

A number of studies on health insurance have paid little attention to the adoption of health insurance scheme in relation to the health-seeking behaviour of employees among private organisations in Nigeria and sub-Saharan Africa at large. This study is expected to provide empirical information on health-seeking behaviour of employees in private sector, vis-à-vis the adoption of health insurance scheme. Also, it will provide information on organisational adoption of the scheme and the influence of gender on health insurance scheme utilisation and employee pathways to care.

Findings from this study is expected to provide evidence-based information that is relevant to government, non-governmental organisations, private organisation' employees and employers, stakeholders of health care, and researchers. Data generated from this study is expected to inform policies in the area of health insurance scheme adoption which is fast becoming an acceptable paradigm in the health care sector development. Health insurance companies may be better informed about the various health-seeking behaviours exhibited by employees of private organisations and how these behaviours are impacted and moderated by health insurance scheme across male and female gender.

However, many stakeholders are involved in health insurance scheme. They play a major role within health care industry to make medical care services available or accessible to the populace. Their collaboration to achieve UHC is a complex process yet pivotal for SDG 3 agenda. As such, knowledge of health-seeking behaviour of employees is necessary for prevention, treatment, management and promotion of health

insurance scheme utilisation services. The study would help in creating a more vibrant health sector. The findings of the research may help in the planning, implementation of small and medium scale business and community health insurance scheme to increase health care utilisations services.

The private sector employers are regarded as stakeholders. Their role is key in health insurance as they employ more than 80% of the populace (Adenuga, 2021) and contribute immensely to national gross domestic production (Al-Mansur *et al*, 2023). Following National Health Insurance Authority (NHIA) act of 2022, private sector employers contributes 10% while the employees contributes 5% of their basic salaries to the national scheme. Further analysis of the new act showed inclusion of the informal sector in the health insurance plan which is a sure way of achieving UHC and meeting up with the 2030 SDG3 agenda. This research, however is a good feat for the target. With this knowledge, the private organisation employers may realize the need to invest in the health of their employees through funding of a comprehensive health insurance scheme package to enhance job satisfaction, healthy workforce and organisational commitment of employees.

Employees (private) are the beneficiaries of the scheme, therefore are regarded as stakeholders. Although their contribution of 5% of basic salary (Al-Mansur *et al*, 2023) makes them players in the new act, yet this was not specified in the 2004 NHIS act. Low level of awareness about the benefits of health insurance scheme hinder employees from utilising health insurance scheme adequately. This has affected their health-seeking behaviour and increased their level of poverty due to out- of- pocket expenditure. For this reason, this research will benefit employees as it exposed the benefits of utilising health insurance scheme which is a sure way of achieving progress in UHC campaign.

The insurance companies like NHIS/NHIA and HMOs are the administrators vested with the power to regulate and control health insurance scheme structures. While the NHIS regulates Health maintenance organisations, the later act as third party administrators (TPAs) and purchases medical care programs for enrolees. There exists private and public insurance companies, although they seek for profit but are not at the detriment of the patients/employees as high cost of health insurance scheme services hinders employees/employers uptake of the scheme. This study is justified based on the fact that it addressed predisposing factors that may hinder the progress of achieving

UHC through health insurance scheme utilisation. The exposure of these factors will help NHIS/NHIA and HMOs in making decisions that will be for the benefits of the enrolees.

The Health Care Professionals (HCP) include the medical doctors, nurses, pharmacists social health workers, occupational therapists, health program designers and other professionals in the health care system. They act as gatekeepers to the insurance company while advocating for the employees (patients) health care. The high increase in the number of patients seen in a day has contributed to hospital waste of time experienced by employees as well as inadequate diagnosis (Institute of Clinical Bioethics, 2023) Health care professionals play a major role in improving health care access, hence are considered adequately for their task in promoting UHC. Nwanaji-Enwerem *et al.* (2022) discovered that HIS beneficiaries were not adequately satisfied from using the scheme due to waste of time. For this reason, this work is significant as it will help professionals in health care to reduce barriers that may hinder employees from accessing care.

Researchers are recognised as stakeholders in health insurance scheme adoption and utilisation. This is due to their ability to create awareness of the findings into actionable health policies. More so, researchers go a long way to follow up and monitor the trend of events as well as evaluate policies for improvement. Therefore, knowledge translation is important as identified by the National Policy and System Research (NPSR) as it expands and contributes globally (Eboreime *et al*, 2022). Presently there is still a research gap in West Africa and Nigeria in particular, to bridge translation of research into policy.

This research is expected to promote universal health coverage campaign and World Health Organisation projection of targeting increased resources on health issues in the developing countries (World Health Report, 2013). Particularly, the effect of the utilisation of health insurance scheme maybe underemphasized if the health-seeking behaviour of the people is not studied.

Financial Institutions are also seen as stakeholders because finance is a major factor that influences health insurance scheme adoption. If the appropriate funding pattern is not established, it may reduce health utilisation and coverage among employees. However,

WHO (2023) echoed 90 million people who are pushed into poverty around the world due to self-payment of medical cost. Also Private industry employers find it difficult enrolling their employees for health insurance scheme due to financial lack. There is still a catastrophic out-of-pocket expense among private employees in the country and there seem to be no formal funding pattern that may suit all at the same time as noted by Onwujekwe *et al*, (2019). An adequate knowledge of the level of financial struggle among the informal sector employers will invaluably help in designing funding pattern with banks and microfinance banks for the purpose of achieving Universal Health Coverage. Therefore, the knowledge from this study will bring practical functionality in the health system and improve the health-seeking behaviour of employees in the private sector.

The government can be said to be the major stake holder in health insurance scheme. Sometimes, they partner with international and non-governmental organisations in other to facilitate the achievement of programs that will be beneficial to the citizens. They are vested with the power to make health-care policies. They have an impact on the outcome of various health initiative while monitoring the trend for further policy action. Furthermore, the study is relevant, specifically in contemporary Nigeria where different pathways to healthcare exist, covering orthodox and non-orthodox medicines and utilisations. The result of this research would add to the reservoir of knowledge and also serve as a useful reference material for future investigation and policy action on health insurance.

1.7 Clarification of Concepts

The following terms were identified and defined for clarity:

Health Insurance Scheme (HIS): This is a programme that provides protection against the costs of medical services which may cover the health risk completely or partially. This may be funded by the government, non-governmental agencies, banks, private individuals or organisations. Like other forms of insurance, it involves the pooling together of funds through risk sharing among those who use the facility and those who do not use the facility.

Health Maintenance Organisation (HMO): Health maintenance organisations are health care firms that render health management services to individuals, organisations, institutions and communities. They act as mediators or third party administrators between the health care centres, NHIS (government policies) and individuals/employees in the management of ill-health. Some of the HMOs have public/private partnership while others are private based. In Nigeria, there are over 80 accredited HMOs. NHIS regulates the activities of the HMOs.

Health-Seeking Behaviour: Health-seeking behaviour refers to actions or steps taken by a person who perceives himself or herself to be sick for the purposes of recovering. Health-seeking behaviour is defined within the context of this study as all the processes involved in getting relief of ill-health by employees who see themselves as ill in order to become healthy and productive.

Employee: This refers to a person who devotes either full or part-time to the employer, and has recognised duties and rights with oral or written expressions which is under a contract of employment. Employees in this context are those who work in private organisations.

Private Organisations: This include a line of work that is for profit but not owned and managed by the government. It may be owned by a person, corporation agency or partnership.

Universal Health Coverage: Universal health coverage means ensuring that citizens have access to needed healthcare facilities like prevention, treatment, rehabilitation, and quality of care, making sure that the facilities used are unexposed to financial struggle as this is an aspect of World Health Organisational objective. There is a universal health coverage campaign in the world to make health care accessible to all citizens. Nigeria adopted health insurance scheme as a yardstick to promote this campaign, prevent out-of-pocket expenses and other barriers associated with health care utilisation.

Out-of-Pocket Expenses: These are costs incurred on medical care which are not reimbursed by the insurance company. Out-of-pocket costs include deductibles, coinsurance, and co-payments for covered services and all costs for services that are not

covered. In order words, they are expenses that were not anticipated but are paid for in cash.

Adoption of Health Insurance Scheme: This means the uptake of a policy on a health financing option by the state or organisation in order to access improved healthcare services and reduce out-of- pocket expenses of employees. Health Insurance Scheme was officially adopted in Nigeria in 2005 following the establishment of National Health Insurance Scheme (NHIS), adopted at the federal and the states level. Organisations are also expected to adopt the policy for their employees.

Pathways of Care: This refers to a course of action or track that constitutes a path. It includes the different ways or mechanisms utilised by employees in managing their health for a desired health outcome. They are also called treatment pathways/options. Example of pathways of care include utilising a single or various course of action like visiting pharmacy shops, self-medication, traditional healing centres, faith based healing centres, orthodox healing centres, shrine and HIS hospitals among others.

Gender Differentials: This refers to the variations between males and females that are socially constructed to differentiate sex's roles.

CHAPTER TWO

LITERATURE REVIEW

This chapter examined existing research on health insurance scheme and health-seeking behaviour. It also included the theoretical and conceptual frameworks for the study.

2.1 Concept of Health

The concept of health is basically a synthesis of various paradigm of disease and illness (Amzat, Razum, 2014). Although many scholars have tried to define health, yet failed to be holistic as WHO (1948) sees health as not merely the non-appearance of disease and infirmity but an overall physical, mental and social well-being. Based on this backdrop of the physical, emotional and the behavioural aspect of human understanding lies access to medical care services for improvement as researches proved that mortality is high in populations with unequal healthcare distribution (Sede, 2015).

Discovering only 2.5% enrolment of HIS in Nigeria and the current health sector budget allocation of 5.3%, which is below 15% of African union recommendation (Adebola, 2020), becomes a concern that may affect the current life expectancy(55.75%) of Nigerians (Macrotrend, 2023). Aside this, globally, the life expectancy at birth improved from 46.5 in 1950 to 71.7 in 2022, as envisaged that it may rise to 77.3 by 2050 through increment in health care coverage (Macrotrend, 2023).

Whereas, Adepeju (2021) documented 80.4% employees from the private sector, yet battling with enrolment of health insurance scheme. Despite the establishment of a new act (NHIA, 2022) which made health insurance scheme compulsory for all including the private sector, WHO (2023) still records about 2 billion individuals who are facing outrageous medical cost in medical care utilisation. Therefore, private employees' utilisation of health insurance scheme structures will increase UHC and promote SDG3 agenda by the year 2030.

2.2 The Concept of Health Insurance Scheme

According to Alawode and Adewole (2021), health insurance scheme (HIS) is an organised arrangement made between contributors and service providers to receive a certain amount of money from contributors or beneficiaries over a period of time to enable health care providers render services that are within the coverage of the plan enrolled and paid for by beneficiaries. It is a programme that operates similarly to some other insurance services in that it provides services to registered members based on their need after collecting funds from all registered members in line with their means. Adam (2023), explained that HIS is a health programme aimed at providing quality services to members of the public as needed, rather than requiring members of the public to wait until they face health difficulties to pay out of their own pockets. The programme aims to reduce out of-pocket health care expenses by providing even services to members of the public in order to improve the quality of health care received.

As examined by Medard, Yawe, and Bosco (2022), health insurance is a strategy used to provide health care services to members of society without relying on government funded expenses, out-of-pocket payments, or donor support. According to these researchers, it is a source of funding for health rather than a source of health expenditure. Mulenga *et al*. (2021) defined health insurance as an important component of healthcare financing that allows beneficiaries to insure their health needs through a pool of risks, eliminating the need for beneficiaries to pay immediately when a health need arises. Following Mulenga *et al* (2021)'s definition of health insurance, it is planned expenditure for unforeseen health-care costs. Obiamaka *et al* (2021) defined health insurance as a programme that provides for times of risk and uncertainty so that enrollees are not disappointed when faced with health challenges. It is a programme that enables enrollees and families to effectively plan for their health needs in order to avoid falling into unexpected poverty due to illness. Health insurance is a planned health scheme that allows enrollees to receive timely and high-quality health care services (Medard *et al,* 2022).

Health insurance is a financial health package that is prepared and organised in order to achieve universal health coverage. It is a programme designed to reduce health-care costs entirely or partially (Obiamaka *et al,* 2021). Obiamaka *et al* (2021) defined health insurance as a means of preparing for a smooth transition to universal health coverage

in order to reduce unanticipated risks and out-of-pocket expenses. Spaan *et al* (2012) classified health insurance schemes into three categories: *(i) national or social health insurance, (ii) private health insurance, and (iii) community-based health insurance.*

According to Spaan *et al* (2012) *(i) National or Social Health Insurance* is the governments' own form of health insurance that is frequently required to provide services to government and other formal organisations' employees. It is a type of health insurance that is frequently regulated by the government and sometimes subsidised in order to reduce costs for beneficiaries. It is a type of health insurance that aims to provide adequate health insurance to the general public. National or social health insurance, also known as public health insurance, is a type of health insurance that serves members of the public. Employees of federal and state governments are frequently enrolled in social health insurance. It is classified as social health insurance because it protects the general public's welfare.

Spaan *et al* (2012), *(ii) private health insurance* is frequently designed to meet the health needs of people who are not covered by social health insurance, such as those who work in the private sector. Private health insurance is a type of health insurance that provides additional or double services to enrollees who are also receiving social insurance welfare benefits. Similarly, Adebayo *et al* (2015) private health insurance provides additional care as an alternative to beneficiaries of other health insurance services. It is a type of health insurance that is owned and controlled by individuals or organisations other than the government of which Spaan *et al* (2012) maintained that private health insurance is more expensive than social health insurance and typically serves the need of society's wealthy or affluent individuals. Members of the upper class are more likely to use private health insurance services on a regular basis (Obiamaka *et al*, 2021).

(iii) Community-based health insurance, according to Spaan *et al* (2012), is community owned insurance that provides services to members of a community. It is a specialised type of health insurance. It is the type of health insurance that takes into account the community's cultural and social factors (Adebayo *et al.* 2015). It is sometimes run in rural areas or supported by community funds. It employs a community prepayment scheme, also known as a community-based mutual health insurance scheme (Obiamaka *et al*, 2021).

The concept of health insurance scheme is synonymous with the general or wholesome wellbeing of a population. This concept is well designed to make health care structures accessible to all insured persons through a pull of fund to protect them against the backdrop of economic constraints. Based on the above contribution of scholars in the field of health care financing, the concept is well organised for appropriate use by private employers for promotion of health insurance scheme structures.

2.3 The Concept of Health-Seeking Behaviour

In a study conducted in Zambia, Daka, Mugala, and Makowa (2021) defined healthseeking behaviour as activities aimed at achieving good health and preventing illness. It is the action taken to prevent or restore health to a functional state. Daka, Mugala, and Makowa (2021) defined health seeking behaviour as the act of seeking medical care from a health facility or practitioner during an illness in order to restore normal functioning of the body. The definition of health seeking behaviour proposed by Daka, Mugala, and Makowa (2021) is intriguing, but it excludes the process of seeking health care services from traditional or spiritual healers. According to Daka *et al* (2021), healthseeking behaviour provides individuals with a timely opportunity to access health care from health care providers in a mutual relationship and trust with the goal of preventing illness and managing complications.

Scholars have developed various conceptualizations of health-seeking behaviour that are linked to population health outcomes over time. Activities undertaken to maintain good health are referred to as health-seeking behaviour (Geldsetzer, Williams and Kirolrs, 2014). Individual actions vary frequently when pursuing a process of maintaining quality health care. The open collection library at the University of British Columbia (UBC) defined health-seeking behaviour as a systematic process of positive action taken by individuals who perceive themselves to be sick in order to improve their health. Using the UBC's definition, the processes of improving ill health were identified as the time differences between discovering the illness and approaching a health care personnel, the pathway of care used by the perceived sick individual, how the individual adhered to the prescribed care, the motivations for using the specific choice of care, and the reasons for not patronising other healthcare facilities. According to this definition, health seeking behaviour is regarded as a variable that mediates micro/macro level interactions in accessing care. In other words, employees' values, expectations, and decisions are the

result of Suchman's (2013) model, which explains the steps that lead from the discovery of symptoms to the selection of a specific health care facility. This, however, implies a logical path as well as the individual's socio-cultural undertones.

Similarly, Kasl and Cobb (1966) defined health seeking behaviour as any process undertaken by an individual to avoid becoming ill or to trace a sickness at an early stage in order to be healthy. Following this sequence, the adoption and utilisation of health insurance schemes will be well understood, taking into account the geographical dimensions of employees in private organisations in relation to their individual histories (Kasl and Cobb, 2013). Employee actions, both positive and negative in nature, have an impact on their health and organisational productivity. Osei Asibey and Agyemang (2017) agreed, arguing that good health is a yardstick for measuring a fulfilled life measured by productive activities for nation-building.

Employee history can thus be classified as knowledge about the availability of health insurance schemes, the benefits of the schemes, the accessibility of the schemes, the cost implications, lifestyle practises, and the role of significant others in health care decision making, as well as the perceived organisational role regarding worker welfare. In other words, Mackian (2013) defined the phenomenon as a deportment by a sick person intending to be healed of a health challenge, whereas Nabieva (2019) views health seeking behaviour as a decisionmaking process facilitated by societal norms. As a result, Musinguzi *et al* (2018) explained the links in an individual's activity who sees himself as sick or with a health challenge in order to provide adequate care.

Health-seeking behaviour can be divided into two categories: healthcare seeking behaviour and health-seeking behaviour. The resistance to seeking health care to improve or bring about a positive health outcome is a product of social and economic factors. Health seeking behaviour is situated within the broader dimensions of social and economic development that affects the sick role activities undertaken by individuals (Ajaegbu and Ubochi, 2016). When faced with various illnesses, this varies depending on the individual or community. Jones *et al* (2016) identified six factors that influence individuals' health-seeking behaviour in society: cues to action, self-efficacy, and risk severity, benefits to action, risk susceptibility, and perceived barriers. To assess the impact of health insurance scheme utilisation, the internal (ill people) and external (superstructures) interactive factors must be understood in the context of health-seeking

behaviour. The health belief model was discovered to be an important explanatory framework in communicating various limitations to health insurance scheme utilisation as a result of this study.

2.4 Universal Health Coverage

Universal Health Coverage seeks logical understanding of health care stakeholders in order to establish guidelines that will assist health systems in the planning of health care programmes that will reflect the global priority content of universal health coverage (Lauer *et al*, 2017). Furthermore, universal health coverage provides access to affordable financial protection and health services, as well as compensation for lost productivity due to illness (Preker, Lindner, Chernichovsky, and Schellekens, 2013). Prepayment is included in the coverage, which promotes risk pooling while ensuring risk spread across time and individuals. Universal health coverage encompasses both national and local health systems. These are funded and managed by the states, and they are primarily beneficial to states with a large enrolment base and high quality assurance. A community-based health insurance scheme designed for the informal sector is another form of risk pooling, but it is limited in scope and cannot adequately achieve universal health coverage for large populations (Dutta and Hongoro, 2013). As a result, projecting relevant standards in administering the indicators that would sustain the complexities of interactions existing at various levels of health care is critical to any country achieving universal health coverage (Abiiro and Allegri, 2015).

The guidelines for financing adequate healthcare through policy implementation are recognised by all countries around the world. Kutzin (2013) emphasised the importance of improving health care insurance efficiency in light of the exorbitant cost of medical bills and global economic undertones. Nigeria is dealing with a dynamic epidemiology of rising non-communicable and chronic communicable diseases (World Health Organisation, 2010). Most countries around the world have optimal universal health coverage (Gottret, 2015). Germany, among other countries, has the world's oldest universal health system, having passed a health insurance bill in 1883 with the intention of providing health care to their workers.

The National Insurance Act of 1911 in the United Kingdom realised the country's goal of providing universal healthcare by covering the majority of employed people and their

dependents (Gottret, 2015). Following World War II, there were other forms of healthcare reform aimed at implementing universal health care systems (Gottret, 2015). Stewardship, on the other hand, is essential in health protection (Ogbimi, 2014). This supported the importance of stewardship for a successful health care programme, which cannot be compromised but can be achieved by incorporating health care budgets into government projects from the start. According to the WHO (2010), there is an initial outline of a defined pattern for achieving universal health coverage. In line with this, Nigeria has yet to establish a standard for how states can implement health insurance schemes for their citizens. This is in accordance with the United Nations member states' commitment to achieving UHC by 2030 as part of the SDGs. This is intended to improve access to health-care services, and as such, every country must work together to meet the target (UHC Fact Sheet, 2018).

In addition, Dago (2018) stated in Nigeria that the scheme meant to actualize the goal of UHC originated in 1962 when the need for citizen's health insurance was recognised as a tool that provides a citizen of a specific society with the ability to use health services when a token contribution is paid at regular intervals and at an affordable cost. Muanya (2015) asserts that the Private Health Insurance Scheme (PHIS) overcame its challenge and adopted new health insurance scheme strategies, whereas Onuoha (2014) describes Nigeria's universal health coverage as made possible by the government's provision of various health policies geared toward ensuring qualitative delivery of health care services. Because of the persistent health issues, the Federal Government of Nigeria established and launched National Health Insurance in 2005. It has been observed that there are contractual principles that govern the use of health insurance in Nigeria and around the world. Onyedibe *et al* (2012) discovered that funds are pooled together in the health insurance industry because it involves risk sharing among those who use the facility and those who do not use the facility when explaining the workability of the industry. This is accomplished by transferring the burden of health-care costs to the insured, allowing the insured to seek care at any time and avoiding out-of-pocket expenses.

The scholars in this debate also proposed fee for service, community financing, grant financing, social insurance, and taxation as alternative models for financing health care in society. However, various methods have been used in Nigeria to overcome healthcare

challenges. Asakitikpi (2019) echoed that health care coverage and affordability should have a different paradigm than what has been used in the past to ensure equitable health care delivery that can be accessed without any barrier. Increased utilisation of health-care services is a major goal in achieving UHC in every country around the world.

Nonetheless, cultural perceptions play a significant role in determining and shaping an individual's illness experience. Social development and individual needs influence illness perception and the meaning people attribute to the physical environment of health. While striving for UHC, it is critical to take into account individuals' perceptions, interventions, and illness outcomes (Graham, 1972; Mechanic 1986). As a result, factors other than finances influence the use of health insurance schemes in Nigeria. Furthermore, culture influences individuals' perceptions of health, illness, belief system on disease causation and death, health promotion approaches, experiences and expression of illness, pathway to care, and treatment outcome in a specific society over time.

As echoed by Mechanic (1986), both health professionals and patients are influenced by their respective cultures. This explanation is still relevant today, and it highlights the importance of cultural competence as a tool for addressing cultural bias associated with the use of health insurance schemes. Furthermore, Jegede (2002) asserted that culture has a functional display of disease aetiology and influences individuals' health-seeking behaviour in society. This requires health care providers to be aware of various workplace perceptions, different pathways to care, and the outcomes of such pathways, all of which promote trust and improve treatment adherence, ultimately leading to the achievement of the universal health coverage goal. This goal in other words promotes sustainable goal 3 agenda.

2.5 Health Insurance Scheme Around the World

Health Insurance has been practised all over the world. Germany which is the first to design a social health insurance system (National Library of Medicine, 2015), was shaped by solidarity, self-governance and competition (Busse, Blumel, Knieps and Barnighausen, 2017). This implies that German health insurance principles made health insurance compulsory, yet easy for the populace to choose their health care providers and sickness funding. This act brought competition among the health insurance

administrators as well as improve the health- seeking behaviour of the populace. Buss *et al,* (2017) stated that citizens in Germany made use of statutory and private health insurance, the latter being utilised by private employees. Currently, 9o% of the population uses statutory health care system while the rest uses the private health insurance as Matz-Townsend (2023) discovered that a new law was made in 2020 which digitalised the health system and made it easy for the enrolled to access timely medical care.

Similarly, every resident in Netherland, both permanent and temporary residents registers for health insurance, although the health care providers play a major role in their enrolment (HIIN, 2022). However, comparing health expenditures of some leading countries and India show high expenditure. India had 4.1 17.3, China had 5.1 25.9, Srilanka 2.9 45.4, UK 9.6 96.9, USA 17.9 44.1 (World Bank report, 2010). Globally, financing health insurance is essential towards achieving universal health coverage. Onyedibe, Goyit, and Nnadi (2012) outlined fee for service, community financing, and loan, grant financing, social insurance, taxation among others as various paradigms in financing health care. A research carried out by United Agency for International Development (USAID, 2008) about the NHIS, discovered a tool that could bring about quality and efficiency within the private providers, increase financial access to health care services, and pool risk across a huge population. The major challenge discovered was in the area of training and enlightenment for health care providers and health maintenance Organisations. Understanding the processes of the scheme and how the scheme works as well as training insurance regulators, and enrolees was a key factor (Barners *et al,* 2008 USAID).

In the less developed countries, health insurance emerged as a major instrument in financial reform associated with health care with a view to achieving universal health coverage. Nigeria has not succeeded in successfully operating a national health insurance scheme. Many individuals, particularly those who are not formally employed are still expected to pay for their healthcare needs while those formerly employed still pay 10% of their total medical bill. This restricts access to health care services for large sectors of the populations because fees associated with health services resulted in adverse effects on healthcare-seeking behaviours, leading to increment in poverty

(Lagarde & Palmar, 2006). Onoka (2012) also reported that health insurance coverage in Nigeria is very low. Its estimate is 5.1 percent.

Furtherance to the low level of health insurance coverage in Nigeria, Agusto *et al* (2018) estimated the low level of health insurance to be at 5.1 percent. In his evaluation of this consequence, a lot of people pay medical bills from their pocket directly despite that a large proportion of Nigerians in the private sector are poor. Following these reports, efforts are needed by stake holders to salvage the situation for a positive health outcome. A plan was customised for the informal sector of health insurance products, developed and channelled to individuals with low income in India and it became a reference point to developing countries on how health insurance could be customised to suit the peculiar health needs of both small and medium sector of the economy (Khetrapal, 2016). He evaluated the availability, provision, and management of health care to achieve success in universal health coverage by involving stakeholders from both public and private sectors governed by contractual agreements.

He further stated, for example, that a family pays a premium annually for enrolment and their premium being subsidizing 75% by the central and 25% by the state governments. Kuangnan *et al (*2012) hinged on understanding China's health insurance effect on their population. Results show that rural areas are overpopulated against health care coverage and significant out-of-pocket expenses. Recommendations were proffered on improvement of health care coverage, especially for households with chronic diseases.

In Nigeria, there are numerous methods for financing healthcare, including fee-for service, loans, grants, social insurance, and many others. Payment for services is the most fundamental form of health care financing. A fixed fee for service is commonly used by government-run health care facilities to raise funds and avoid unnecessary healthcare requests. This pattern, however, accounts for increased poverty as well as payment difficulties for salaried workers whose ill-health is not covered (Onyedibe *et al*, 2013). According to Omer *et al* (2017), there is currently a changing trend in health decision making as individuals are actively studied to assess their treatment seeking among the population. In conclusion, Musing (2018) examined the importance of health education in raising awareness about the use of health care.

In light of the foregoing, enlightenment and training of stakeholders and enrolees are required for health care improvement in the utilisation of health insurance schemes in Nigeria. Several proposals are currently being considered to expand the scheme's reach and make it mandatory for private sector employees, while also providing a medical care fund for citizens, specifically for children under the age of five, disabled and elderly citizens approaching the age of 70, inmates in correctional service centres, pregnant women, and impoverished individuals (Dutta and Hongoro, 2013). Al-Mansur (2023) opined that the new health insurance act of 2022 filled this gap by establishing National Health Insurance Authority which made health insurance compulsory.

According to Apeloko (2017), the international agency's support for risk bearing of health care resources through a health insurance scheme, is a mechanism for protecting the vulnerable in society from high medical costs. This is because, the vulnerable group bears the greatest disease incidence (Nwokocha and Taiwo, 2014). Furthermore, funding health insurance schemes has been a difficult task in Sub-Saharan African countries. In Nigeria specifically, public sector workers' health insurance is structured as a contributory pool of fund. Although other patterns of health care funding exist, private sector health insurance funding is not always guaranteed, making health insurance scheme adoption impossible.

To promote a positive health outcome, Habib *et al.* (2016) saw microfinance banks as a mechanism for reducing debt, medical costs, and poverty among developing-country populations while Lorenzetti *et al.* (2017) discovered the intervention of microfinance banks in promoting education through enlightenment of good health practises. However, Peterson *et al*. (2016) developed a prospective technique of health insurance scheme funding of the informal sector in Lagos State by partnering with a microfinance bank and a private organisation. The results revealed that a large number of employees were willing to enrol in a health insurance scheme. Following the research trend, it is clear that microfinance institutions have the capacity to serve as a vehicle for funding health insurance schemes for both the private sector and Nigerian citizens.

2.6 Health Insurance Scheme in Less-Developed Countries and Nigeria

Health insurance scheme has emerged as a major instrument in financial reforms associated with health care in less developed countries, with the goal of achieving

universal health coverage by individuals who seek health care using health insurance scheme when sick. Nigeria is yet to successfully implement a national health insurance scheme. Many people, particularly those who are not formally employed, are still expected to pay for their healthcare needs, while those who have previously worked are still expected to pay 10% of their total medical bill. This restricts access to health services for large segments of the population because health-care fees have had a negative impact on healthcare-seeking behaviour, leading to an increase in poverty (Lagarde and Palmar, 2006). According to Onoka (2012), health insurance coverage in Nigeria is extremely low. It is estimated to be 5.1 per cent.

Furtherance to the low level of health insurance coverage in Nigeria, Agusto *et al* (2018) estimated the low level of health insurance to be at 5.1 per cent. His assessment of this outcome means that many people pay medical bills out of their own pockets, Despite the fact that a large proportion of Nigerians in the private sector are poor, stakeholders must therefore work together to salvage the situation and achieve a positive health outcome. In India, a plan was developed and channelled to individuals with low income for the informal sector of health insurance products. It became a reference point to developing countries on how health insurance could be customised to suit the peculiar health needs of both small and medium sector of the economy (Khetrapal, 2016). He evaluated the availability, provision, and management of health care to achieve success in universal health coverage by involving stakeholders from both public and private sectors governed by contractual agreements.

He further stated, for example, that a family pays a premium annually for enrolment and their premium being subsidized 75% by the central and 25% by the state government. Kuangnan *et al. (*2012) hinged on understanding China's health insurance effect on their population. Results show that rural areas are overpopulated against health care coverage and significant out-of-pocket expenses. Recommendations were proffered on improvement of health care coverage, especially for households with chronic diseases. Comparing health expenditures of some leading countries and India, Nigeria show high expenditure on health care (World Bank Report, 2010).

In Nigeria, financing health insurance is essential towards achieving universal health coverage. Onyedibe, Goyit, and Nnadi (2012) outlined fee for service, community financing, and loan, grant financing, social insurance, taxation among others as various

paradigms in financing health care in the society. According to them, Nigeria over the years has combined these ways in a bid to achieve Universal Health Coverage. A research carried out by United Agency for International Development (USAID) (2022) about the NHIS discovered a tool that could bring about quality and efficiency within the private providers, increase financial access to health care services, and pool risk across a huge population. The major challenge discovered was in the area of training and enlightenment for health care providers and health maintenance organisations. Understanding the processes of the scheme and how the scheme works as well as training insurance regulators, and enrolees will be a key factor (Barners *et al.,* 2008). However, USAID (2022) supported the establishment of National Health Insurance Authority (NHIA) as an amendment to the 2004 act of National Health Insurance Scheme (NHIS).

2.7 Planning, Implementation and Mode of Operation in Nigeria's Health Insurance Scheme

Health insurance scheme is a program designed by pooling resources together for the benefits of taking care of individuals' health. National Health Insurance Scheme was established by the federal government of Nigeria in 2005 under the 1999 Act of 35, to spread among health care individuals spending that are related to health. There are three operational segments which are meant to address the Nigerian population within the public sector while the private organisation social health insurance scheme covers the community based voluntary contributions social health insurance program which include the vulnerable group social health insurance program. This program takes care of the physically challenged individuals in the society, the prison inmates, displaced persons, immigrants, pregnant women, under 5 children, victims of human trafficking and refugees (Eke, 2019). However, employees in the formal sector contributes a token of 1.75% of his earnings while employer contributes 3.25%, summing it up to 5%. But in organised private organisations, employer pays 10% and employee on the other hand contributes 5 %. This makes it up to 15%. The principal enrolee is expected to enrol 4 dependants that are not more than 18 years of age and a spouse. In case of illness, the dependant enrolees are not expected to pay again, but this is based on the benefit package of the chosen plan (Eke, 2019).

Following the quest towards achieving universal health coverage by African countries, Adebisi *et al* (2019) in Nigeria, reviewed NHIS operational policy, evaluating the

scheme within the informal sector. Findings revealed that the schemes' goal and objectives are still a mirage. Meanwhile, result show that comprehensive coverage is an important factor towards achieving a successful universal health courage. Similarly, in Latunji and Akinyemi (2018), enlightenment of the population with low level education is found to be paramount to having an adequate health-seeking behaviour while health insurance scheme adoption was seen to improve the health outcome of the populace. In addition to this, other variations of internal contingencies which determine health seeking behaviour of individuals include gender, age, severity of disease and medical professional's trust (Thompson, 2016).

According to the OECD (2019), aggrandizing the coverage of health insurance scheme structures will result to great positive health outcome. This means spreading an amount which is paid up front over individuals associated with risk who are seeking health care for a period of time. This body noted the need of pooling resources through compulsory contributions of large number of people in order to carter for the poor in the society while meeting up with the universal healthcare coverage financed through health insurance scheme. These funds pooled together are expected to be subsidized through revenues received from the government. From this sequence, the central theme of the taxonomy of health care funding which is the basic concept that centres on the modalities put in place to indicate, categorize and ascertain the combination of all the sources of finance for health insurance scheme (OECD, 2017). It is important that the private organisations benefit extensively from the funding through other sources which can be brought as a result of the peculiarity of Nigerian concept, bringing into play financial institutions that could collaborate with private organisations for a sustainable health insurance scheme financing.

Presently, analysing the healthcare funding sources in Nigeria from 2014-2016, out of pocket spending seems outrageous. In 2014, out of pocket spending was 72%, the same in 2015 and increased to75% in 2016 (WHO Global Health Expenditure Database, 2019). The NHIS noted low level of coverage in the country which ranges from 5% (covered mostly federal government workers) in 2016 to 11% in 2019. This is supported by Onoka *et al* (2012) where only 3 states in the federation adopted officially health insurance scheme. Currently, about 19 states are in their different stages of adopting an official state health insurance scheme (WHO Global Health Expenditure Database,

2019). The stages are yet to be completed and this has a negative effect on the adoption policy of organisations in the private sector. To this end, there is an urgent need for the compulsory implementation of health insurance scheme especially for the private organisations in Nigeria. This will help in the eradication of out of pocket expenses and promote house hold savings.

However, the mandate of NHIS is achieved through the functionality of HMO while NHIS serves as the regulatory body to the HMOs. The HMOs has both private and public companies which are for profit and non-profit registered entities. These organisations have a primary responsibility of registering enrolees of private and public organisations who pay a premium for the management of their health annually which are renewable per year. This is in line with the registration Act 35 of 1999 section 19(1) Nigerian constitution. Akinbode *et al.* (2019) opined that the services of HMOs in Nigeria are not satisfactory as the government does not monitor the services of the hospitals in terms of quality assurance. The planning and implementation of health insurance scheme structures call for a stakeholder's discussion bringing into play the 3 tiers of government (federal, state and local government) for funding that will reach the grass root and other levels of the society for a holistic intervention of access and utilisation of health insurance scheme (Onwujekwe *et al*, 2018). Perhaps, the dictates of the low level of coverage, low level of awareness, lack of enlightenment of the rural dwellers and private sector employees on the benefits of health insurance scheme, lack of advertisement and funding proposals. Shiyanbade *et al* (2017) suggested an implementation of compulsory health insurance scheme while assessing the implementation strategies of the scheme and its effects on the people.

In 2022, a new act was enacted which vested the power to monitor, control and regulate health insurance through the National Health Insurance Authority (NHIA) (Al-Mansur *et al.*(2023). This act made health insurance compulsory to every citizen in Nigeria, even the private sector employees and appointed third party administrators (TPAs) who are vested with the power to serve as health maintenance organisations. Following the new act trend, there are other third party administrators other than the HMOs. The aim is to meet up with the UHC campaign to make health care accessible to all through health insurance.

2.8 Extent to Which Health Insurance Scheme is Utilised

A study conducted in Nigeria by Alawode and Adewole (2021) among HIS stakeholders using a qualitative approach revealed that the extent to which HIS is used is less than expected, as a large group of people are yet to fully enrol in the scheme. Their research found that not making the scheme mandatory for those in the informal sector contributed to low utilisation of the scheme's services.

A study conducted by Merga, Balis, Bekele, and Fekadu (2022) among a nationally representative sample of 8,663 Ethiopians found that less than one-third, or 28.1%, used HIS in the country. The study found that socioeconomic and demographic factors influenced participants' use of HIS. In particular, a study conducted in Ethiopia by Merga *et al*, (2022) discovered that having children under the age of five, the gender and age of household heads, family size, wealth index, and place of residence all influence HIS utilisation. Merga *et al*. (2022) discovered that those in rural areas enrolled in HIS more than those in urban areas in an Ethiopian study. According to the study, the population of people living in rural Ethiopia is larger than those living in urban Ethiopia, which may have influenced the residential differences. However, this finding contradicts a study conducted in Tanzania, which found that urban areas had higher enrollment in HIS than rural areas (Kuwawenaruwa, Macha and Borghi, 2011).

Adewole, Reid, Oni, and Adebowale (2022) found that the spatial distribution of health facilities registered with NHIS influences the extent of NHIS programme utilisation among enrollees in a study of 420 NHIS enrollees in Ibadan, Nigeria. According to the findings of Adewole, Reid, Oni, and Adebowale (2022), the concentration of NHIS health facilities in Ibadan is centripetal and primarily in urban areas, and this concentration has been linked to the availability of infrastructure such as goods and electricity supply in those settings. Merga *et al* (2022)'s research in Ethiopia found that people from wealthier families used HIS more than those from poorer families. Interrogation revealed that other expenses not covered by the scheme, such as transportation to and from health facilities, instil fear in patients and prevent poorer households from using HIS.

Merga *et al* (2022) found that people with larger family sizes were more likely to use HIS than individuals from smaller households in an Ethiopian study using data from the

Demographic and Health Survey. The study by Merga *et al* (2022) in Ethiopia associated higher utilisation of HIS among larger families with the fact that people with larger family sizes are more likely to be faced with health catastrophe and members suffering from unplanned health complications, so using HIS becomes the best logical option to cater for contingency that could lead to large use of unplanned out of pocket expenses. Merga *et al.* (2022) discovered that families with children under the age of five were more likely to use HIS than families without children. The researchers supported their findings by stating that families with younger children are more likely to visit health facilities for health care services, so using HIS is perceived as logical to families with children under the age of five.

A study conducted among staff of federal colleges of education in Nigeria by Oriolowo *et al* (2022) discovered that a positive perception of public employees about the cleanliness of the hospital environment and laboratory equipment encourages a large number of study participants to seek health care from NHIS hospitals. A study conducted by Olamuyiwa and Adeniji (2014) revealed that cleanliness of the physical environment of the hospital encourages patients to use health care services from hospital and clinic facilities. Oriolowo *et al.* (2022) found that positive attitudes of doctors and nurses during consultation and visitation to health facilities increase the likelihood of public employees using NHIS facilities for health care.

A similar study conducted by Adebiyi and Adeniji (2021) realised that enrollees of Nigerian health schemes who were satisfied with the services provided to them in facilities recorded positive satisfaction due to the positive attitude obtained during interaction with health care providers. According to Adebiyi and Adeniji (2021), improving the health worker-patient relationship could increase enrolment and utilisation of health care professionals in health facilities. A study conducted in Rivers State by Michael *et al.* (2017) observed that the attitudinal treatment received from health workers by patients and enrollees of NHIS programme is strongly associated with scheme utilisation.

The study by Oriolowo *et al* (2022) found that, while NHIS enrollees experienced delays in utilisation of health care services in hospitals and clinics, which may have discouraged some of the enrollees, the delay was not intentional and was attributed to the limited number of doctors and nurses in the hospitals. According to a study conducted among

public employees in Nigeria by Oriolowo *et al* (2022), increasing the number of doctors and nurses will go a long way toward reducing waiting times in hospitals and clinics and, in the short or long run, encourage enrolment and utilisation of the NHIS programme. In a study conducted in south-south Nigeria, Olamuyiwa and Adeniji (2021) discovered that a lack of health workers, including doctors and nurses, contributes significantly to delays in health care service utilisation, discouraging patients from utilising health care services from NHIS hospitals in Nigeria.

Adewole, Reid, Oni, and Adebowale (2022) found that primary health care (PHC) facilities were not registered by the NHIS to provide services to NHIS enrollees, despite the fact that PHCs are widely distributed across the 11 local government areas studied, including in urban and suburban areas. According to the Adewole, Reid, Oni, and Adebowale (2022) study, NHIS only used secondary and tertiary health facilities to provide services to enrollees in Ibadan. According to Merga *et al* (2022), Ethiopia has begun the implementation of community-based HIS, which is expected to influence public understanding and utilisation of the scheme because it is now closer to the people. Despite its strengths, Merga *et al* (2022) study had a weakness in its ability to follow respondents over time to understand their utilisation of HIS because it was a crosssectional survey. Furthermore, the study did not address issues such as education and employment, which could influence how families and individuals use HIS.

In accordance with the Adewole *et al* (2022) study, because PHCs are widely distributed across both urban and rural settings in Ibadan, engaging PHCs to provide NHIS services to enrollees will go a long way toward preparing Nigeria to achieve universal health coverage. In some studies conducted in Ghana, Rwanda, and Brazil, primary health care providers (PHCs) were enlisted to provide health insurance services to the populace (Atun *et al*, 2015; Machado and Silva 2019).

A study conducted in Ibadan, Nigeria, by Adewole *et al* (2022), found a high rate of health facility bypassing, which is defined as walking or travelling from a nearby facility to a distant facility for health reasons. Adewole *et al* (2022) discovered that the availability of an NHIS registered facility to an individual household does not necessarily reflect high patronage or utilisation of health care services from NHIS facilities, as some people bypass one NHIS facility to another during health seeking. Other studies identified the desire for quality health care and awareness of available

health care services at facilities as some of the reasons (Wong, Benova and Campbell, 2017; Tanou and Kamiya, 2019). Indeed, Adewole *et al* (2022) discovered that 94% of the study population, which is very high, engaged in bypassing, which was largely not accounted for by the referral system but by other factors. Another study conducted in Uganda discovered that 5% of people aged 15 and above used the country's health insurance scheme (Republic of Uganda, 2018). Solanke (2021) also found that only 3% of Nigerian women of reproductive age have health insurance scheme, on a national population-based study of 41,821 Nigerian women.

Discovering that the extent to which health insurance scheme is utilised is as low as 2.5% in Nigeria (Adebola, 2020), the government enacted a new act which makes health insurance compulsory to every citizen and legal residents (Ipinnimo, Durowade, Afolayan, Ajayi and Akande, 2022). Uzochukwu *et al*, 2014) discovered about 366 primary health care centres in Enugu state. Most of the health centres are not accredited by NHIS as they lack some essential health services (Ekenna *et al*, 2022), hence may not be used by employees. Lack of access to health insurance scheme facilities limits the goal of UHC, not only in Enugu State but Nigeria and the world.

2.9 Influence of the Adoption of Health Insurance Scheme on Health-Seeking Behaviour

A study conducted in Ibadan, Nigeria, by Alawode and Adewole (2021) using a qualitative approach among health care providers, government representatives, and health insurance scheme regulators found that poverty is a significant factor preventing the adoption of health insurance schemes, particularly among those in non-governmental employment or the informal sector. Their research revealed that, while some employees were willing to pay out of pocket, their insufficient financial status and financial capacity prevented many from taking advantage of the scheme. Another research by Mohammad, Shahzad, Mohamood,Mahmood and Akram (2022) discovered that superstitious belief is a factor influencing scheme utilisation as well as employee health seeking behaviour. In Nigeria, Adebiyi and Adeniji (2021) discovered that harsh attitude of health care professional have seriously impacted on its utilisation among country-specific individuals.

In a study conducted in Nigeria, Oriolowo *et al* (2022) discovered that the removal or reduction of financial burden from NHIS enrollees who use facility services was a factor

influencing the adoption and utilisation of services from HIS hospitals and clinics. A study conducted in Anambra state, Nigeria, by Onyemaechi and Ezenwaka (2022) using a mixed method analysis among 447 respondents and 62 FGD participants found a 49% increase in HIS utilisation among enrollees after enrolling in the scheme. According to Onyemaechi and Ezenwaka (2022), enrolling in the HIS increases utilisation of health care services from HIS registered hospitals and clinics. Onyemaechi and Ezenwaka (2022) observed a significant positive relationship between marital status, education, occupation, and HIS utilisation, for example, higher educational levels correlate with better health seeking behaviour among HIS enrollees. Their findings revealed that enrolling in HIS shaped and determined enrollees' health- seeking behaviour, as HIS participants were more likely than others to have positive health -seeking behaviour.

In Anambra state, Nigeria, Onyemaechi and Ezenwaka (2022) found that enrolling participants in the HIS that provided users with affordable services, quality services/drugs, and access to health care professionals contributed to improving enrollees' health seeking behaviour. In Anambra state, Nigeria, Onyemaechi and Ezenwaka (2022) also discovered that HIS enrollees who used private hospitals and clinics adopted a more appropriate health seeking behaviour than those who used public hospitals. In explaining the differences in health seeking behaviour between public and private hospital users, their findings revealed that those who use private hospitals reported receiving better health care services than those who use public hospitals.

Onyemaechi and Ezenwaka (2022) found that employees in Anambra State, Nigeria who were enrolled in HIS to receive quality health care services at an affordable cost were less likely to engage in self-medication or use health care services from herbalists or chemist shops. According to the study, there is a link between affordability, high quality health care and appropriate utilisation of hospital-based health care services. Also, another study conducted in Anambra state, Nigeria, by Onyemaechi and Ezenwaka (2022), noted that the outcome of health care utilisation from health facilities strongly determined their continuation of health care seeking from formal health facilities (i.e. hospitals and clinics), as they were willing to forego the benefit of affordable health care as HIS enrollees to seek health care from alternative sources if they could get quality services from HIS hospitals/clinics. Adewole *et al.* (2022) discovered that distance to health facility was a major factor influencing enrollees' appropriate and timely utilisation

of NHIS engaged hospitals in Ibadan, Nigeria. Their findings noted an average distance from residence to NHIS-registered health facilities in the 11 LGAs studied. It was 1-6 kilometres.

A study conducted by Medard *et al* (2022) using a national survey in Uganda found that participant education plays a significant role in influencing the utilisation of health insurance programmes. Medard *et al* (2022) discovered that people with higher educational levels (post-educational level) were more likely to use HIS services than people with lower educational levels. A study conducted in Uganda by Medard *et al* (2022) linked the increasing level of utilisation of HIS among respondents with higher education to information awareness, as higher education is often associated with a higher level of awareness about the benefits of health insurance. Medard *et al.* (2022) discovered that married and older people were more likely to use HIS services than unmarried or single people and younger people. Similarly, Mhlanga and Dunga (2020) discovered that marital status has a significant influence on HIS utilisation in a study conducted in South Africa.

Medard *et al*. (2022) found in Uganda that an individual's wealth index influences their use of health insurance. According to the findings of the Medard *et al* (2022) study, individuals with the highest household index were more likely to use HIS health care than those with the lowest household index. Salari *et al*. (2019) conducted a similar study in Ghana and discovered that individuals with higher income levels use HIS more than those with lower income levels. A study conducted in Uganda by Medard *et al* (2022) discovered a significant association between frequency of mass exposure, such as reading newspapers, watching television, and listening to radio, and use of HIS. Similarly, Takudzwa *et al.* (2020) found in Zimbabwe that awareness of the existence of health insurance services influences utilisation of the scheme. A study conducted in Uganda by Medard *et al* (2022) discovered that residence and setting significantly influenced utilisation of HIS services at health facilities. According to the findings of the Medard *et al* (2022) study, those who live in cities are more likely than those who live in rural areas to use health insurance services. Similarly, Nsiah-Boateng and Aikins (2018) found in Ghana that those who live in urban and semi-urban areas use HIS more than those who live in rural areas.

A study conducted in Uganda by Medard *et al* (2022) revealed that religion influences HIS programme utilisation. Dror *et al.* (2016) discovered a similar study in a systematic review in low and middle income countries that religion influences the utilisation of HIS services. A study conducted in Uganda by Mpuuga and Eshete (2022) using a national household survey found that having a noncommunicable disease influences participants to use HIS more than those who do not. According to the Mpuuga and Eshete (2022) study conducted in Uganda, participants who suffer from non-communicable diseases such as high blood pressure, heart disease, and diabetes use health insurance services more than those who do not. Mpuuga and Eshete's (2022) study noticed a link between HIS awareness, willingness, and utilisation. According to Mpuuga and Eshete's (2022) study, having adequate awareness about the existence of the scheme, its benefits, and how it operates significantly influenced willingness to pay for and use the scheme.

According to a study conducted in Uganda by Mpuuga and Eshete (2022), having the willingness to pay for HIS does not always result in actual utilisation of the scheme due to affordability. According to their findings, enrolling in HIS services for noncommunicable diseases is more expensive than enrolling in HIS services for communicable diseases. Solanke (2021) discovered, using a national population-based study of 41,821 Nigerian women, that women who enrolled in health insurance had a higher prevalence (70.5%) of delivery in a health facility than those who did not. According to Solanke's (2021) research, factors that influence women's use of health insurance for delivery purposes include the gender of the head of the household, the type of marriage, and the most recent delivery. In the study conducted in Nigeria by Solanke (2021), women who used health insurance were more likely to have higher education, more asset ownership, and greater health autonomy than those who did not use health insurance.

A study conducted among 1,208 Malaysians by Hasan and Rahman (2022) found that having a smaller family size and having an underlying disease increases participants' willingness to pay for HIS and likelihood of using HIS. A study conducted in Malaysia by Hasan and Rahman (2022) discovered that education, wealth index, and occupation all influence study participants' willingness to pay for HIS. Gender, marital status, and ethnicity did not significantly influence study participants' willingness to pay for and use of HIS, in a study conducted in Malaysia by Hasan and Rahman (2022).

Gebremedhin, Mohanty, and Niyonsenga (2022) found that enrolling in private health insurance was associated with higher utilisation of HIS during maternity using national surveys of 4,289 respondents in India. Gebremedhin *et al.* (2022) unearthed that participants with private health insurance were more likely to use HIS services during pregnancy than those with public health insurance. A study conducted in India by Gebremedhin *et al* (2022) discovered that higher maternal age, education, and household wealth index were factors promoting higher utilisation of HIS services during maternity. According to Gebremedhin *et al*. (2022), having more children is associated with lower utilisation of maternal health care services from health insurance hospitals and clinics. The Gebremedhin *et al* (2022) study in India found that increasing family size was not a factor that decreased the rate of utilisation of HIS for maternal health care. In the Indian study, Gebremedhin *et al* (2022) discovered that mothers' autonomy was associated with greater use of HIS during maternity.

Obiamaka, Mayin, and Munteh (2021) found that participants' use of health insurance is influenced by a lack of financial capacity, residence, and a sense of solidarity in a study of 400 Cameroonians. Enrollment in health insurance, as revealed by Obiamaka *et al* (2021), was associated with healthy living because the insurance scheme keeps many enrolees healthy. Obiamaka *et al* (2021) study in Cameroon discovered that those who are healthy are less likely than those who are ill to be willing to pay for health insurance premiums.

Numerous researchers have discovered some factors that influence people's healthseeking behaviour. According to Eley, Namey, Mckenna, Johnson, and Guest (2019), most people in the community base their treatment and choice of care on the severity of their illness. Further investigation revealed that if the illness is perceived as not being severe, men will ignore the associated pain and cope with home remedies. This call for adequate enlightenment of such communities' cultural and belief systems by healthcare providers for adequate health care programmes geared toward educating people on the importance of early diagnosis in achieving a positive health outcome. This reveals people's dissatisfaction with government health care facilities, which is one of the factors for individuals in rural communities patronising other health care facilities that may be detrimental to their positive health outcome, though other factors such as

untrained health care personnel and the users' economic capabilities may also play a role in their choice of health care resources (Deolia *et al*, 2020).

Economic conditions, educational attainment, awareness of health-care facilities, and assessment capabilities, according to Musoke *et al* (2014), are factors that influence the choice of health-care system. Deolia, Khare, Arora, Chikhale, Korde, and Reche (2020) discovered the linked concepts of interactions among sick individuals and household features that have a significant effect on people's health-seeking behaviour when outlining the characteristics of oral health outcome of individuals. Poor feeding conditions, eating habits, low literacy, medical care awareness, economic unpredictability, and lack of faith in orthodox medicine, according to Deolia *et al* (2020), cause delays in medical care utilisation, which affects people's health outcomes.

Brown *et al*. (2017) found that cultural beliefs and traditional health practises of people have a distinct effect on their well-being and affect their use of conventional health care facilities when using stated preference methods to improve health outcomes in SubSaharan Africa. According to Aluko-Arowolo and Ademiluyi (2015), cultural tendencies promote negative lifestyle choices that are harmful to positive health outcomes. This focused on understanding cultural differences, community members' perceptions of health in a complex society, and their effects on care and health-seeking behaviour. As a result, Shaikh and Hatcher (2014) pointed out that, in addition to belief system, other factors that influence health-seeking behaviour include symptoms, severity of illness, and health care provider choices. However, home prescriptions, delays in seeking health care, noncompliance with medical treatment, and referral advice have all been linked to poor health outcomes.

Lawson (2014) identified and listed the factors influencing the use of modern health care as long distance travel to health care facilities and a low educational level. This is particularly associated with women from low-income families, which influences their health-seeking behaviour. Verma (2013) found that affected people seek health care through friends to avoid being exposed in her study on perceptions of problems associated with sexual health-seeking behaviour in Mumbai slums. This, however, has contributed to their multiple health-care facility searches, which has a negative health impact. This is consistent with a focus group study on health-seeking behaviours in the Gambia, which suggests waiting until symptoms worsen not only due to delayed

symptom recognition, but also due to an accepted view that "this is how things are" (Miles, 2011). Health seeking behaviour is an important tool for measuring a phenomenon and revealing a relationship between populations and health care resources (Mackain, 2019). In other words, adequate knowledge of the illness faced by employees, a variety of care options, and a health insurance plan to reduce or eliminate household spending will increase individual positive behaviour toward health care.

2.10 Treatment Pathways and Utilisation of Health Insurance Scheme

Several studies in Nigeria among national and sub-national HIS coordinators indicates that enrollees are now given the freedom to choose their HMOs, as opposed to when the programme first began, when employees were typically assigned to a particular HMO (Vambe,2020). This research indicated that the occurrence was due to employees" complaint about not receiving quality service from the HMO assigned to them. Many employees have been able to direct their treatment pathways to utilising health insurance scheme services because they have the freedom to choose their HMO of choice. Also, Alawode and Adewole (2021) illustrated that in Nigeria, giving employees the option to choose their HMO or health provider of choice has contributed to many employees directing their attention to three or fewer health care providers and facilities because they believe they will receive quality services from those fewer health care providers, resulting in overcrowding in fewer health care facilities.

Mbuthia *et al.* (2018) found that participants in a study of 61 TB patients in Kenya used pluralist pathways to health seeking for disease treatment, which included accessing health care services from both traditional healers and herbalists, as well as public and private health care professionals. Mbuthia *et al* (2018) realised that there was no single pathway to health seeking among the participants in their qualitative study in Kenya. The study discovered that patients' pathways to health care change in a variety of directions over time. Mbuthia *et al* (2018) found that because patients were unsure of the exact cause and condition of their illness, they were more likely to self-medicate as a first step toward health seeking by purchasing drugs from chemist shops. Mbuthia *et al*. (2018) discovered that when patients' illnesses worsened, they were more likely to seek medical attention from a health facility.

Dawood *et al*. (2017) found that 66.7% of study participants seek health care from physicians from health facilities when they are ill in a cross-sectional survey conducted among 888 participants in Malaysia using a questionnaire. However, it was discovered that slightly more than half of the respondents (54%) self-medicate. According to the study conducted in Malaysia by Dawood *et al* (2017), self-medication was associated with ethnicity, education, living alone, and having a self-care orientation. The study by Dawood *et al.* (2017) in Malaysia revealed that treatment pathways existed among the respondents because most of the respondents sought health care from multiple sources, but it did not research the respondents' pathways to highlight the exact stages adopted in health seeking.

Mbuthia *et al*. (2018) found in a study conducted in Kenya that patients accessing health care from facilities that do not specialise in the aspect of health care that the patients truly desire contributed to patients having two or more pathways to health seeking. They also discovered that some patients who sought medical care from formal health facilities experienced diagnostic delays, which influenced some to pursue more than one path to health seeking in order to avoid the rigorous diagnostic steps in formal facilities. In the study conducted by Mbuthia *et al* (2018) in Kenya, they found that most patients that participated in their study who begun treatment pathways from formal health facility did begin from primary health care facility and private hospitals/clinics. From their research findings, some private hospitals/clinics, particularly those in rural areas, did not have well-equipped laboratories to perform diagnoses, and instead of referring patients to more competent health facilities, they retained and delayed patients due to the financial benefits they hoped to obtain from the patients. The qualitative study by Mbuthia *et al* (2018) conducted in Kenya among 61 participants found that the determinants of treatment pathways among patients are at individual, socio-cultural and structural levels.

Dawood *et al.* (2017) found that 20.9% of 888 respondents in Malaysia use selfmedication as their first point of health seeking when they are ill. Approximately 11% of respondents stated that they usually consult pharmacists at pharmacy shops for medication as their first point of contact when they are sick. Following a study conducted in Malaysia by Dawood *et al* (2017) among 888 respondents, there was no significant relationship between gender, health condition, and seeking health care from physicians when sick. Their research found that elderly participants who had already retired from

work were more likely than active service workers to seek health care from medical practitioners. Self-medication was more common among young adults aged 35 to 44 years in Malaysia, according to Dawood *et al* (2017), than in other groups. The study conducted in Malaysia by Dawood *et al* (2017)noted, social media, family members, and friends all play a significant role in determining respondents' treatment pathways and health seeking behaviour. As found in the study by Dawood *et al*. (2017) in Malaysia, 28.9% of the participants in their study rely on previous experience for medication, which is usually self-medication.

This is to say that approximately one-third of respondents in Dawood *et al* (2017) study in Malaysia used past experiences of a similar illness to determine self-medication to adopt using past medication prescription or knowledge, which could be harmful to individuals because the actual cause of the illness may differ from the past cause of illness. Treating a newly diagnosed illness with previous experience or prescription without a new diagnosis could be harmful to one's health. Dawood *et al.* (2017) discovered that 3 out of every 7 participants in a Malaysian study used self-medication as a treatment pathway. According to the findings of the Dawood *et al* (2017) study in Malaysia, participants were less likely to use health insurance scheme as their primary source of health care. The findings of the study revealed that, not all people who seek medical care use health insurance scheme.

In a study conducted among 114 respondents in Zambia, Daka, Mugala, and Makowa (2021) found that the majority of respondents used hospitals and clinics as their first place of treatment for health care, with the explanation that a good number of the respondents desired professional health care services. Daka *et al*. (2021) discovered that the determinants of health treatment pathways are heavily influenced by individual actions and situations, such as the belief that they require care and that care is available, accessible, and can be obtained. Daka *et al.* (2021) observed that affordability is critical in determining the initial and subsequent health care treatment pathways. Daka *et al.* (2021) found that respondents' treatment pathways in their study in Lusaka, Zambia were influenced by education and income. Higher income and education, therefore, increase utilisation of professional health care providers. According to Daka *et al* (2021) in Zambia, paying out of pocket delays health utilisation, whereas health care insurance increases the likelihood of receiving health care from a professional at a facility.

In a study of 114 samples in Zambia, Daka *et al* (2021) found that having a large family size influences non-professionals' utilisation of health care. According to the study, those with large family sizes already have a lot of financial responsibilities for family upkeep, so financial inadequacy prevented them from seeking professional care when they were sick, especially if they used a health facility as their first point of contact. According to Daka *et al* (2021), the main reason for delay in using professional health care among the poor was financial constraints, whereas it was service delay among the rich respondents. According to the study conducted by Daka *et al* (2021) in Zambia, the rich prefer health facilities where they can get quick access to health care, which may play a role in the rich accessing health care from health insurance hospitals and clinics. Daka *et al*. (2021) found that the reception, consultation, laboratory, and pharmacy waiting rooms are the areas where respondents frequently complain about delays in health care facilities.

According to Onyemaechi and Ezenwaka's (2022) study in Anambra state, Nigeria, participation in HIS reduced utilisation of health care from medicine vendors as first choice of provider from 46% to 8.1%, indicating that participation in HIS directly or indirectly discourages utilisation of health care services from non-health facilities. Daka *et al* (2021) discovered that the most common reason for non-utilisation of health care providers, including health insurance hospitals and clinics, particularly public hospitals, was the writing of prescriptions for them to go and buy outside the hospitals due to a lack of drugs in the hospital facility. Daka *et al*. (2021) noticed that in Zambia, a long distance to a health facility was a major barrier to people seeking health care from health insurance hospitals and clinics. According to the findings of the Daka *et al* (2021) study in Zambia, the establishment of many health care facilities closer to the people will allow many more people to receive health care from professionals. In Zambia, Daka *et al* (2021) found that poor communication networks between health workers and patients prevented many people from seeking professional health care. Their research discovered that the way health care providers discussed, treated, and interacted with patients discouraged a large number of patients from seeking health care services from hospital care providers.

2.11 Gender Differentials and Adoption of Health Insurance Scheme

Gender context denotes a social and cultural difference in the identities of behaviours in relationship interactions between male and female with social structures and attributes that are considered appropriate by any given society (WHO, 2010). In examining the concept of gender, the WHO (2014) discovered that societal norms grant men numerous advantages over women. However, men and women are shaped to conform to gender specific norms, which has an impact on their health. Most studies on gender health discovered that women seek health faster than men, especially when men have tuberculosis (Govender and Penn-Kekana, 2010). This is discussed further in Eley *et al* (2019), who stated that men seek medical health care only if their symptoms are so severe that self-medication is no longer effective.

In a study conducted in Ethiopia, Merga, Balis, Bekele, and Fekadu (2022) found that male-headed households were more likely than female-headed households to enrol in and use HIS in a nationally representative sample of 8,663 Ethiopians. The study supported its findings by stating that having a male-headed household using HIS rather than a female-headed household was related to the fact that in Africa, men frequently take financial responsibility for issues related to health and home decisions. Daka *et al* (2021)'s study of 114 Zambian samples discovered no significant difference between male and female utilisation of professional health care. According to Daka *et al* (2021), in a study conducted in Zambia, women in Zambia were aware of appropriate sources of health care that could be accessed through social media, relatives, and friends.

A study conducted in Tanzania by Durizzo *et al* (2022) using an analysis of 26 million claims submitted to the government found that women between the ages of 30 and 59 years, particularly those from middle-income households, were more likely to access health care services from HIS facilities than men, the elderly, and those from the poorest and richest households. A study conducted in Uganda discovered that men were more aware of HIS than women (Republic of Uganda, 2018). Mpuuga and Eshete's (2022) study in Uganda found no significant difference in male and female participants' willingness or utilisation of HIS services. Mpuuga and Eshete's (2022) study discovered a significant but non-linear relationship between age and HIS utilisation.

Salari *et al* (2019) reported a similar finding in Ghana, that there is a significant relationship between respondent age and HIS utilisation. Mpuuga and Eshete (2022) found a link between the type of marriage and the use of HIS. According to their findings, those from monogamous families use HIS more than those from polygynous families. A similar study conducted in Ghana by Salari *et al.* (2019) discovered that marital status is significantly important in determining HIS utilisation. Mpuuga and Eshete's (2022) study in Uganda found a link between educational level and HIS utilisation. According to Mpuuga and Eshete (2022), regardless of participants' level of literacy, it influences willingness to pay for and use HIS in Uganda. In Nigeria, Aregbeshola and Khan (2018) discovered that education has an impact on HIS utilisation.

Mpuuga and Eshete's (2022) study in Uganda found that residence has a significant impact on HIS utilisation. According to their findings, urban residents were more likely than rural residents to use HIS. According to Mpuuga and Eshete's (2022) study, the reason for more urban dwellers using HIS than rural dwellers is related to information, education, and income levels, which are generally higher in urban than rural areas. Adebayo *et al*. (2015) discovered that income level has a significant influence on HIS utilisation in Nigeria. Mpuuga and Eshete's (2022) study in Uganda found that participants with larger family sizes were less willing to pay for HIS due to the expense they were afraid of incurring due to their large family size. In Uganda, having a large family size and enrolling in HIS, where enrollees must pay the premium, was associated with enormous expenses.

Mulenga, Mulenga, Musonda, and Phiri (2021) found that enrolment and utilisation of private health insurance was generally low among men and women in Zambia using a national survey to access the utilisation of private health insurance. An earlier study by Wang, Temsah, and Mallick (2013) found that health insurance utilisation is generally lower than 5% across men and women populations, despite the fact that men enrolled more than women in general. A study conducted in Zambia by Mulenga *et al* (2021) found that being married increases the likelihood of using health insurance services for both men and women. In Ghana, Salari *et al* (2019) discovered that married people use health insurance more than unmarried people.

Mulenga *et al.* (2021) found that among men and women samples, increasing age increases the likelihood of using health insurance. Those in the advanced age group use health insurance more than those in the younger age group. In Kenya, Kiplagat, Muriithi, and Kioko (2013) discovered that elderly people were more likely than younger adults to register for health insurance. According to the Mulenga *et al* (2021) study in Zambia, older age is more frequently associated with health complications requiring regular medical attention than younger age.

Mulenga *et al*. (2021) found that men and women living in the wealthiest households were more likely to use health insurance than those living in poor households in Zambia. Wang, Temsah, and Mallick (2013) discovered similar results in their study on health insurance enrollment in developing countries. Mulenga *et al*. (2021) observed in Zambia that higher educational levels for both men and women increase the likelihood of using health insurance. According to the Mulenga *et al* (2021) study in Zambia, education provides both men and women with exposure, appropriate information, and higher paid job opportunities, putting them at a higher risk of using health insurance than those without education.

A study conducted in Malaysia by Hasan and Rahman (2022) found that gender had no significant influence on study participants' willingness to pay for and use of HIS. Mulenga *et al* (2021)'s study in Zambia noticed that place of residence influences the use of private health insurance, with both men and women living in rural areas less likely to use health insurance than those living in urban areas. According to their findings, private hospitals registered with health insurance are more likely to be located in cities than in rural areas, which may have contributed to the higher utilisation of health insurance among city dwellers.

Mulenga *et al* (2021)'s study in Zambia discovered that men and women's occupations influenced their use of health insurance. According to the Mulenga *et al* (2021) study in Zambia, being a professional and having a formal job increases the likelihood of using health insurance, whereas being self-employed or in an agricultural occupation decreases the likelihood of signing up for health insurance services. An earlier study by Ibok (2012) found an increase in health insurance enrollment among formal employees. According to Mulenga *et al* (2021), the fact that formal employees are more likely to

enrol in health insurance than self-employed people is related to the fact that formal organisations are more likely to enrol their employees in health insurance.

Women typically delay seeking health care for economic reasons, though they may be permitted to seek health care for their children (United Nations Children's Fund, 2006). In Asia and other developing countries, approximately half of women are denied the right to make health-care decisions. In Burkina Faso, Mali, and Nigeria, approximately 75% of women are denied the right to make health-care decisions. Such roles are seen as gender specific and reserved only for husbands (UNICEF, 2006). Intriguingly, in other societies, women are seen to use health care facilities more frequently than men. Despite the fact that culture and available infrastructure shape their perception of care pathways (Aliko-Arowolo and Ademiluyi, 2015). Loromeke *et al.* (2019) found that the sequence of men's health-seeking behaviour is multidimensional, despite being an intriguing phenomenon. He believes that socio-cultural norms, as opposed to patriarchal norms, influence men's health characteristics, particularly in academia, and that cultural norms are a major contributor to the health-seeking behaviour of men with high educational qualifications.

According to Yaya *et al*. (2019), despite community leaders' involvement, the number of men accessing care in community health care programmes is small in comparison to the number of women and children. Oshi *et al.* (2015) stated that men are more likely than women to disregard medical instructions and follow-up visits after being diagnosed with a disease. In other words, despite health maintenance organisations' customization of plans for the informal sector and private sector organisations' adoption of health insurance schemes, these efforts do not optimise the health care management of male employees. Funding health insurance schemes has been a difficult task in Sub-Saharan African countries. In Nigeria, public sector workers' health insurance is structured as a contributory pool of funds. Although other patterns of health care funding exist, private sector health insurance funding is not always guaranteed, making health insurance scheme adoption impossible. To promote a positive health outcome. Habib *et al*. (2016) saw microfinance banks as a mechanism for reducing debt, medical costs, and poverty among developing-country populations.

Lorenzetti *et al.* (2017) discovered the intervention of microfinance banks in promoting education through enlightenment of good health practises, whereas Peterson *et al*. (2016)

developed a prospective technique of health insurance scheme funding of the informal sector in Lagos State by partnering with a microfinance bank and a private organisation. The results revealed that a large number of employees were willing to enrol in a health insurance scheme. Following the research trend, it is clear that financial institutions have the capacity to serve as a vehicle for funding health insurance schemes for both the private sector and Nigerian citizens.

Without the intervention of financial institutions, many employees in Nigeria would face warp in their families. Most families experience distortions when a family member dies as a result of a large medical bill that they were unable to pay. The accumulation of these distortions in the family has an impact on organisational productivity. This is because health is the foundation upon which all other structures are built on. As a result, microfinance banks may provide funding services while adhering to sound policies that limit vulnerabilities to economic shocks (Gertler *et al*, 2009). These funding services may also be provided by institutions, cooperatives, self-help groups, community banks, savings groups, and so on.

2.12 Challenges and Experiences in the Adoption of Health Insurance Scheme

Alawode and Adewole (2021) conducted a study in Ibadan, Nigeria, and found that the adoption of health insurance schemes is common among government and formal employees, with little involvement of informal employees in the scheme, despite the fact that the programme has been in operation in Nigeria for a decade or more. Alawode and Adewole (2021) discovered that most government employees, particularly federal government officials who are common participants in the scheme, rarely co-contribute to the scheme as suggested by the NHIS policy. The study also revealed that state government employees rarely benefited from the programme because many states are yet to fully enrol their employees in the programme. According to Alawode and Adewole (2021), healthcare providers in the scheme are frequently dissatisfied with the capitation from employers and employees in the system, as the capitation is frequently lower than the health needs of clients. On the other hand, they discovered that employees are also complaining that the scheme's benefits are less than the capitation invested in the programme.

Another challenge encountered by employees in the utilisation of health insurance schemes, according to Alawode and Adewole (2021) in Nigeria, occurred during the period of processing authorization code in cases where the employee is to be referred to a secondary or tertiary health facility. Alawode and Adewole (2021) discovered that the structure of Nigerian institutions has also influenced the effective operation of the scheme in Nigeria. As found by Alawode and Adewole (2021), a large number of Nigerians are willing and ready to pay for the HIS scheme but are poor and thus cannot afford to pay the premium on a regular basis. According to their findings, providing full fee waivers to the poorest members of society could be a good way to increase enrolment in the HIS in Nigeria. According to the study, supporting state and community-based HIS in Nigeria could be a very good way to increase massive enrollment of Nigerians into the scheme. It was also discovered that a large number of Nigerians have lost trust in several government-sponsored programmes in the country and are therefore unwilling to participate in prepayment health schemes.

A study conducted by Akweongo *et al* (2021) among health providers and insurance managers in Ghana using a qualitative in-depth interview approach discovered that a lack of qualified staff to adequately handle the processing of health profiles and activities of HIS officials and health care providers delays enrollment and other stakeholders' utilisation of HIS services. A study conducted in Ghana by Akweongo *et al* (2021) discovered that claims reimbursement delays impede effective utilisation of HIS. Their study discovered that among health care providers who applied for claim reimbursement, there is no uniformity in their submissions, indicating that there is insufficient education on adherence to guidelines on claim reimbursement submission, which in the short or long run created distortion in HIS utilisation among enrollees.

In Ghana, Akweongo *et al* (2021) found that the adoption of a manual method of processing enrollees and health care providers information contributed significantly to errors on claims reports, delaying reimbursement and causing delays in services delivered to HIS users. The study by Akweongo *et al* (2021) noted that among health care managers in Ghana, the failure of claim processing officers to call on the attention of health care providers at the health care facility levels to correct the errors found on their claims forms on time contributes to reimbursement delays, which in turn affects the smooth service delivery from health care providers to registered enrollees of the HIS

programme. Akweongo *et al*. (2021) found that the procedures used in vetting claim forms differ from those used by health care providers who submitted the claim forms for reimbursement to foster healthcare services. According to their research, a common understanding between the officers vetting the forms and the health care providers preparing the claims will help to improve HIS services to clients, implying the need for training on common understanding between the two key players in the industry to improve HIS services to patients.

A study conducted in Ghana by Akweongo *et al* (2021) found that one of the major challenges confronting the smooth operation of the HIS in the country is the delay in reimbursement of claims. The study's health care providers complain that claims reimbursement delays are a major impediment to providing effective services to HIS clients at the health facility level. According to a study conducted in Ghana by Akweongo *et al* (2021), delays in reimbursement of claims to Health Care Providers (HCP) crippled most of the health providers, making it difficult for them to have an easy run in procuring medicines and other commodities to provide undiluted services to HIS clients. According to the findings of the study conducted in Ghana by Akweongo *et al* (2021), delays in reimbursement of claims from HIS managers caused health care providers to reuse supplies and commodities that were not intended to be reused on patients/clients, contributing to non-adherence to professional safety in medical service delivery.

Akweongo *et al* (2021) study conducted in Ghana found that while HIS managers admitted to the existence of delays in reimbursement of funds/claims to health care providers, they also elaborated that the challenges they do face that lead to the delay in reimbursement of health care providers are associated with errors and inconsistencies in claims forms submitted by the health care providers. The study by Akweongo *et al* (2021) also found that a lack of transparency and trust in claims forms from health care providers contributes to reimbursement delays because HIS managers had to take sufficient time to identify falsehood and inconsistencies in the forms to avoid reimbursing incorrectly. According to the findings of this study, a lack of trust between health care providers and health insurance providers significantly contributed to delays in HIS service delivery.

Also, an Akweongo *et al* (2021) study conducted in Ghana, claims reimbursement delays have caused some health care providers to withdraw from the scheme. It has also discouraged many other health care providers from joining HIS in providing health care services to the vast majority of people who have registered for the scheme. As found by Akweongo *et al* (2021), the discouragement of new health care providers from joining the scheme in providing services to the populace has created inequity in health access, causing residents in some areas to fall behind in accessing HIS services. Akweongo *et al* (2021) found inadequate funding and premiums as factors preventing the smooth operations of the HIS. Participants in the Akweongo *et al* (2021) study believe that increasing the premium may help to provide HIS providers with adequate funds to manage and improve health care delivery. Despite the numerous strengths of the Akweongo *et al* (2021) study conducted in Ghana, one of the study's limitations was that it used only a qualitative approach, making it difficult to adequately present measurable findings. Another limitation of the study was that it used a purposive sampling technique in sample selection, which can lead to sampling bias in some cases.

A study conducted by Oriolowo, Asarya, and Olarongbe (2022) among 165 sample respondents who were staff of federal colleges of education in a cross-sectional survey in North Central Nigeria discovered that while the majority, more than 70%, of the respondents were aware of the existence of NHIS, more than 60% of the participants complained of long waiting times at health facilities when utilising NHIS services. According to a study conducted in Nigeria by Oriolowo, Asarya, and Olarongbe (2022), nearly half of the respondents (47.9%) were unaware of the steps to take to file a complaint if they were dissatisfied with the services provided by NHIS hospitals or clinics. According to Oriolowo *et al*. (2022), more than 20% of respondents were not fully aware of the objectives of NHIS in health care delivery to members of the public. Based on a study conducted in Nigeria by Oriolowo *et al* (2022), the majority of public service employees who enrolled in the NHIS did so because their colleagues and others were doing so, but they were unable to explain the scheme's exact objectives.

Adewale *et al*. (2016) found a similar challenging finding in their study in Lagos, Nigeria, where they noted that employees kept complaining about their salary being deducted whether or not they had enrolled in the scheme. According to Adewale *et al.* (2016)'s study in Lagos, Nigeria, federal government employees perceived the scheme

as mandatory for all employees, whether they enrolled or not. According to a study conducted by Oriolowo *et al* (2022) among 165 participants in North Central Nigeria, one of the challenges encountered that led to low utilisation of NHIS was that employees in the public sector saw the scheme as one of the government's strategies to extort money from public servants. In accordance with the Oriolowo *et al* (2022) study in Nigeria, only about 52% of the federal government institution staff sampled in the study were aware of the NHIS's responsibilities to enrollees.

As stated by Oriolowo *et al* (2022), despite the fact that the majority of the participants in the study were educated as college of education staff, they were completely unaware of the scheme's responsibilities. In line with the findings of the Oriolowo *et al* (2022) study, not knowing the objectives and responsibilities of the NHIS indicates low and insufficient utilisation of the scheme. Owumi *et al.* (2013) conducted a similar study among employees at the University of Ibadan and discovered low awareness about the effectiveness, objectives, and responsibility of using NHIS by employees at a federal university in Nigeria. The study by Oriolowo *et al* (2022) found a link between low awareness of the scheme's objectives/responsibilities and dissatisfaction among public employees.

Oriolowo *et al* (2022) discovered that employees' dissatisfaction stems from not meeting maximum expectations from the scheme enrolled. Another challenge identified by Oriolowo *et al* (2022) in Nigeria was a lack of referral services among NHIS enrollees. Although the few enrollees who were privileged to receive referral services attested that it was satisfactory, Oriolowo *et al* (2022) study found that participants who received referral were low in their study.

Durizzo *et al* (2022) found in Tanzania that one of the major challenges to the sustainability of HIS is the government's inadequacy of funds to meet the health needs of the entire population. As a result, a study conducted in Tanzania by Durizzo *et al* (2022) suggested that subsidising the HIS programme and partnering with private agencies would go a long way toward increasing access and utilisation of HIS. A study conducted in Tanzania by Durizzo *et al* (2022) also discovered that preventable diseases contribute significantly to the challenges faced in the cost of HIV, as a large number of patients who use the scheme visit hospital facilities for treatment of diseases such as

malaria and diarrhoea, which are preventable through improved hygiene, water, and infrastructure development.

A follow up on the study conducted by Durizzo *et al* (2022) in Tanzania, one of the challenges confronting private health facilities that are registered with HIS is the low or limited number of patients who visit such facilities because many are unable to avoid the large sums of money required to pay for the services required. Furthermore, as discovered in a study conducted by Durizzo *et al* (2022) in Tanzania, delays in reimbursement of health care providers' insurance claims impede the smooth operation of the scheme. Another challenge identified in the study by Durizzo *et al* (2022) in Tanzania was the scheme's unfavourable reimbursement prices, as health care providers perceived the price to be lower than expected in order to provide adequate and effective health care services to patients. On the other hand, Aregbeshola *et al* (2022) suggest that Nigerian government should review the former ways of enrolment of the informal sector as it has not yielded huge results. However, new policies should be made for improvement of the private sector enrolment.

2.13 Theoretical Framework

For the study, the researcher employed two theories. They are, the Structural Functionalism and the Health Belief Model.

2.13.1 Structural Functionalism

This is a vital sociological theory that can be traced back to the works of Auguste Comte, Emile Durkheim, and Herbert Spencer. The theory views society as a unit of analysis with various parts that are constantly interacting with one another, each part having a significant effect on the whole. Similarly, Malinowski's (1884-1942) and Radcliffe Brown's (1881-1955) structural functionalist theory describes society as an organism with structure and function. They explained that society operates on the basis of survival needs. They went on to say that all societies strive to meet requirements that are essential to their survival and functionality. These requirements are known as "basic needs," and they are distributed across societal institutions such as the family, economy, religion, education, politics, and health.

According to the theory, one of a society's basic needs, such as that of Nigeria, is to maintain a functional and appropriate health care system. For example, if the government implements a health insurance scheme for its citizens in order to maintain societal health stability, the processes and implementations must be functional in order to provide adequate health care services while reducing poverty caused by OPE. Radcliffe Brown concentrated on the network of relationships and interactions that occur in health and other social systems, as well as how these intertwine to affect people's access to health care services. He observed that if there is a positive network of relationship among societal institutions (economy, education, family, polity, health, etc.) in sustaining positive health care outcomes, then members' health-seeking behaviour would be well regulated, particularly by the established rules of government institutions (Oriji, 2015).

Deductively, the theory emphasises the need for appropriate government policies on the use of health insurance scheme as a means of reducing OPEs in order to improve the population's health status. To put it another way, as the government makes efforts to manage people's health needs, it is critical that the network of relationships among other sectors be maintained and managed to avoid disintegration, which could influence poor health-seeking behaviours. However, the theory did not take into account individual differences and perceptions on healthcare seeking, as well as how these perceptions influence care choices. To fill this gap, the study employed a micro theoretical perspective of the Health Belief Model.

2.13.2 Health Belief Model (HBM)

This is the second perspective adopted for this study. In 1974, three scholars, Godfrey Hochbaum, Stephen Kegels, and Irwin Rosenstock, developed the health belief model. The model's predictive ability is based on individuals' attitudes and beliefs. According to the model, an individual will take a health-seeking action if he or she believes that a negative health situation can be avoided and also if the recommended action will result in the desired outcome.

The HBM is a motivating theory of human health seeking behaviour that emphasises positive health behaviours in order to avoid negative health consequences. People, for example, seek health care or follow preventive rules and treatment (both of which are

positive health actions) to avoid the perceived threat of death and stigmatisation, among other things (classified as negative health consequences). The HBM assumes that a person will take a health-related action if he or she believes that a negative health condition can be avoided, has a positive expectation that by taking a recommended action, he or she will avoid a negative health condition, and believes that he or she can successfully take a recommended health action. By implication, people's health-seeking behaviour is influenced by their perceived susceptibility, severity, barriers, benefit, cue to action, and self-efficacy regarding illnesses.

Kasl and Cobb (1966), for example, defined health seeking behaviour as any process undertaken by an individual to avoid being sick or to trace a sickness at an early stage in order to be healthy. The Health Belief Model divides health-seeking behaviours into two categories: "threat perception" and "behavioural evaluation" (Sheeran and Abraham, 1996). An individual who perceives himself or herself to be sick would compare taking action versus not taking action for treatment based on the perceived benefits of taking action versus benefits of not taking action, as well as the perceived treat or severity of the sickness, whereas behavioural evaluation deals with the sick individual's perception or beliefs and the barriers the sickness poses. Cues to action and general health motivation provide the necessary impetus for an individual to act (Becker, Haefner, and Maiman, 1977). However, these processes and perceptions may motivate an individual to adopt a health insurance plan in order to reduce personal or household spending on illness, or to disregard a health insurance plan if the illness is considered minor, non-severe, or even less expensive in undergoing treatment.

The theory also identifies predisposing factors as elements that may influence health seeking behaviour. Gender, level of education, age, marital status, and income are just a few example. These additional social determinants may influence an individual's decision to participate in a health insurance scheme plan. The contextual factors of health policy in terms of health insurance scheme adoption, including characteristics of the delivery system and consumer satisfaction, are the primary focus of this model in the research. According to the theory, the three major categories of health service utilisation determinants are: predisposing characteristics, enabling characteristics, and need characteristics. The model is relevant because it categorises the various factors that influence the use of health insurance scheme services into three broad categories related

to society, health system, and individuals. This model is appropriate for both healthcare providers and healthcare users in explaining people's health-seeking behaviour.

2.13.3 Conceptual Framework

The conceptual framework (shown in Figure 2.1) synthesises structural functionalism “s theoretical perspective and the health belief model with the study's objectives to provide a foundation for the research. The framework reflects how individual and institutional factors which are key elements in structural functionalism interact with components of the health belief model (perceived susceptibility, severity, cues to action, perceived benefits, and perceived barriers) to influence respondents' treatment pathways and health care utilisation decisions. The framework demonstrates how the interaction of treatment pathways and perceptions influences employees' health seeking behaviour. A close examination of the framework reveals that employees' health seeking behaviour can be formal (seeking care from formal healthcare facilities) or informal (seeking care from informal healthcare facilities/relying on self-medication) at the same time. The dotted line connecting treatment pathways to health seeking behaviour implies that in some cases, an employee's first place of care may be informal, while intermediate or final places of care may be formal, and vice versa, explaining employee health-seeking behaviour.

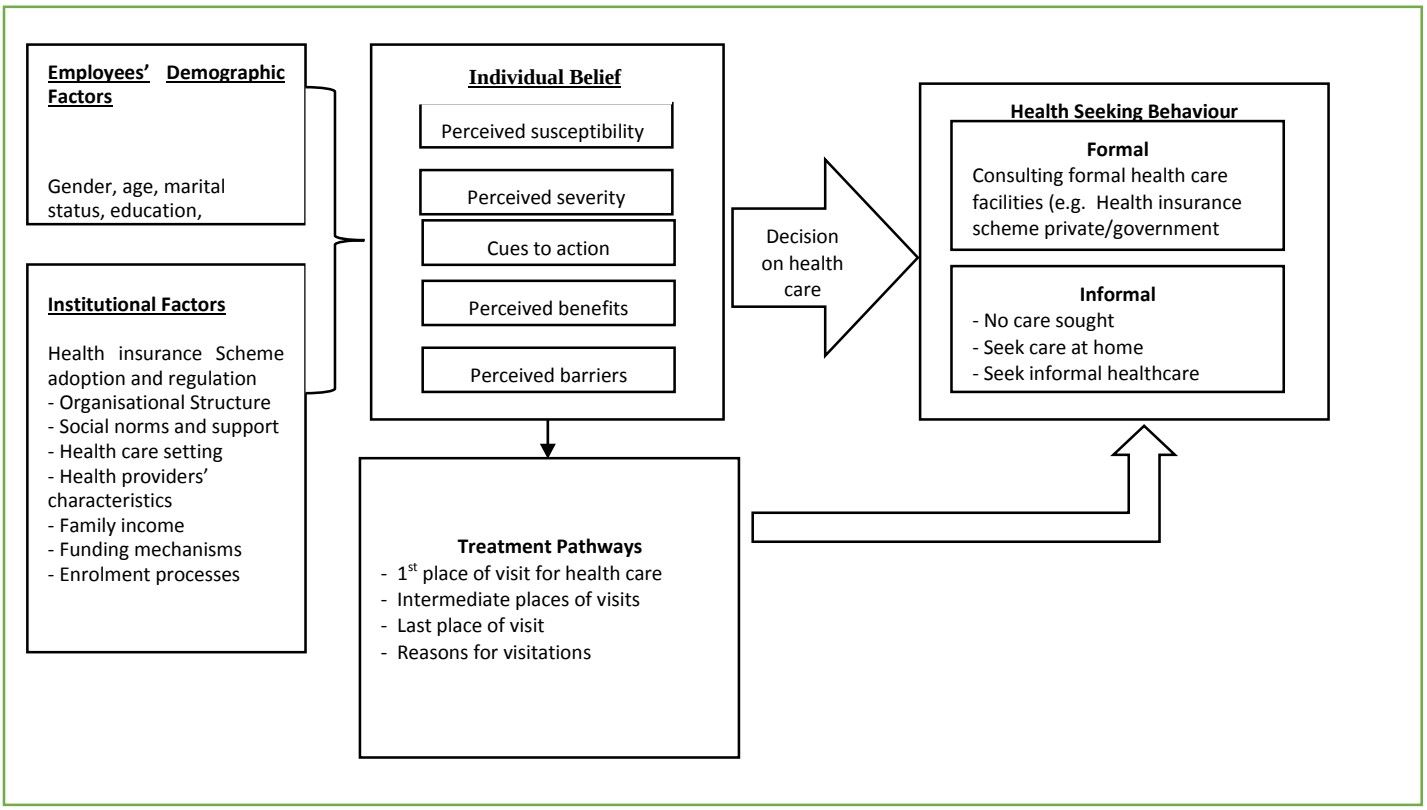

Fig. 2.1: A Conceptual Framework Showing the Synthesis of Structural Functionalism and Health Belief Model

CHAPTER THREE

METHODOLOGY

This chapter describes the methods used to carry out the study. It discusses research design, study population, sample size and sampling technique, instrumentation, data collection methods, and data analysis.

3.1 Research Design

This study used a cross-sectional research design to examine the effect of health insurance scheme adoption on the health seeking behaviour of employees in private organisations that have implemented health insurance scheme. The design permitted the collection of data from the sub-sets of the population. The study used both quantitative and qualitative data triangulation technique which provided a richer information as each complemented the other.

3.2 Study Area

The research was conducted in Enugu State. Enugu is located in Nigeria's south-eastern zone. It is the bedrock of Igbo land. Enugu is the state capital and Igbo is the native language of the people. Most of the public hospital facilities in the state are inadequate, 87% having up to half of the recommended service domain of WHOs service availability and readiness assessment (SARA) survey (Ekenna *et al*, 2020). Only few private and public hospitals are registered with the NHIS. However, trainings are often conducted for HMOs and HIS beneficiaries by the State Agency for Universal Health Coverage (Enugu State Agency for UHC).

Despite the fact that the state is a public-sector-driven economy, the private sector exists alongside the public sector (Enugu State Government, 2017), thus the location choice. Enugu was also chosen because it is the first and only state in the South Eastern Zone to have completed its official adoption of a health insurance scheme by the state

government (Onoka *et al*, 2012; WHO Data Base, 2019). This research was carried out in Enugu, the state capital.

3.3 Study Population

This study's population was made up of employees from private organisations in Enugu State's manufacturing and service industries. The chosen organisations were selected from among the private organisations in Enugu State's capital city. The rationale for choosing this population is based on the fact that the organisations adopted HIS for their employees (Enugu State ministry of Labour). The organisations are as follows:

1 Manufacturing Industry - Innoson Technical and Industrial Company Limited (Enugu). Innoson Technical and Industrial Company Limited is a manufacturing company with 1000 employees and a health insurance scheme for its employees. The company produces plastics, health and safety accessories and electrical components.
2 Service Industries – Integrated Obaino Limited (Enugu). This is a private service organisation with 240 employees and a health insurance scheme. Integrated Obaino Limited is tasked with rendering services to the Nigerian Breweries. The company also focused on communication and marketing services.

3.4 Sample Size

Due to the fact that the total population of the study is known, the Taro Yamane (1967) sample size determination formula was used for this study. The formula was used to select 457 respondents from the population. The sample size was determined as follows: 415.5 + 10% (to account for non-response cases). This brought the sample size to 457 respondents, and were divided between employees with health insurance scheme from the manufacturing and service industries. The estimated error of sample selection was set at 0.04, which is acceptable in social science research and provides 96% accuracy out of 100. This was also consistent with Yamane's (1967) contention that when the population size is small, the sample size should be increased.

The formula is as follows:

$$n = \frac{N}{1+N(e)^2} \qquad 3.1$$

Where n = Sample size

N = Population size (1,240)

1 = Constant

e = error of sampling (0.04).

$$n = \frac{1,240}{1+1,240(0.04)^2} = \frac{1,240}{1+1,240\ (0.0016)}$$

$$n = \frac{1,240}{1+1.984}$$

$$n = \frac{1,240}{2.984} = 415.5$$

Attrition (10%) = $\frac{415.5}{100}$ *10 = 41.55

The sample size for this study was therefore put at 457

Table 3.1: Proportional Distribution of Sample by the Study Population

S/N	Private Organisations	Type of Industry	No. of Staff	Proportion	Questionnaire Proportional Distribution
1	Innoson Technical and Industrial Company Limited	Manufacturing	1000	1000/1,240*100 = 80.6	80.6/100*457 = 369
2	Integrated Obaino Limited	Service	240	240/1,240*100 = 19.4	19.4/100*457 = 88
	Total (N)		**= 1,240**	**= 100%**	**= 457**

3.5 Sampling Technique

The study used a multi-stage sampling technique with three stages, which are listed below:

Stage 1: Enugu State was purposefully chosen because it is the only state in Nigeria's South Eastern Zone that has completed the implementation of the state health insurance scheme (Onoka *et al*, 2015; WHO Data Base, 2019).

Stage 2: Purposive sampling technique was used to select private organisations that have adopted a health insurance scheme from a list obtained from the Enugu State Ministry of Labour. The lists included the names of Enugu State's manufacturing and service industries. This list was divided into two sections: manufacturing industries and service industries. From the lists, two organisations with health insurance schemes were chosen using a purposive sampling technique. One organisation was chosen from the manufacturing industries list, and the other from the service industries list.

Stage 3: For questionnaire administration, a simple random sampling technique was used to select sampled employees using a lottery method with no replacement after each selection from the chosen organisation. After that, numbers were drawn at a random from a box containing the wrapped numbers assigned to the employees. Purposive sampling was used for in-depth and key informant interviews.

3.5 Inclusion Criteria

The following criteria guided the researcher:

For Employees:

i. He/she must be an employee between the ages of 18 and 59 who has been at their current workplace for at least one year prior to the survey.
ii. He/she must be employed in the private sector that has implemented a health insurance scheme, and the private organisation must be located in Enugu State and be either a manufacturing or service industry.

For Health Care Professionals (HCPs):

i. The health professional must be employed in an NHIS-accredited hospital.
ii. He or she must be a licenced professional.
iii. He or she must have been in active practise for at least one year prior to the survey.

For Health Maintenance Organisation (HMO) managers:

i. He/she must be employed by NHIS-accredited HMO.
ii. He/she must have worked in an HMO for at least a year prior to the survey.

For Managers in the National Health Insurance Scheme (NHIS):

i. He/She must have been working with the National Health Insurance Scheme (NHIS) for at least a year, preceding the survey.
ii. He/She must have adequate knowledge of health insurance scheme.

For the Managers in the Private Sector:

i. He/she must have worked as a manager in the selected private organisation for at least a year prior to the survey.
ii. He/she must have sufficient knowledge of organisational operations in relation to the implementation of a health insurance scheme.

3.7 Research Instruments

This study used a triangulation of quantitative and qualitative data collection techniques, including a questionnaire, key informant interview (KII), and in-depth interview (IDI) guides. The combination of these methods allowed one method to compensate for the shortcomings of the other. Employees from the chosen private organisations took part in the questionnaire and in-depth interviews. Key informant interviews were conducted with health professionals, managers from selected private organisations, managers from health maintenance organisations and officials from health insurance scheme.

3.7.1 Questionnaire

The study used a semi-structured questionnaire with closed and open-ended questions. The researcher designed the instrument after conducting an in-depth review of related and relevant studies. The instrument was created to assess the study's objectives and was given to four hundred and fifty-seven (457) respondents (employees). To make responding easier, the skip method was used on questions that were not applicable to a respondent. After being educated on the ethical standards involved in research, two field research assistants were hired and trained to assist in data collection.

The instrument covered five major areas: A, B, C, D, and E. Section A included data on respondents' "socio-demographic characteristics" such as gender, marital status, education, age, employment status, and so on. Section B contained questions that assessed objective 1: investigating the extent to which private organisation employees in the study area use health insurance schemes. Session C included questions related to objective 2: examine the influence of the adoption of a health insurance scheme on the health-seeking behaviour of employees in selected private organisations. Section D included questions that assessed objective 3: comparing the treatment pathways of employees in selected private organisations who use health insurance schemes. Section E included questions that assessed objective 4: Examine gender differences in health seeking behaviour among employees in selected private organisations in Enugu state.

3.7.2 Key Informant Interview (KII)

The researcher conducted 16 key informant interviews (KIIs), which were face-to-face interactions between the researcher and key informants using pre-planned unstructured questions. The interview was adaptable and allowed for further exploration of issues not covered by the questionnaire. The interview was conducted with eight private sector managers, two HMO managers, two NHIS health insurance scheme officials, and four healthcare providers (medical doctors) from NHIS accredited hospitals. The interviewees' managerial and professional characteristics regarding the adoption of a health insurance scheme and employees' health-seeking behaviour were the focus of the questions. The questions also covered objective 5 which examined the challenges and experiences of employers in the adoption of health insurance scheme in the selected private organisations.

3.7.3 In-Depth Interview (IDI)

The researcher conducted 24 In-depth Interviews (IDIs), with respondents from organisations with health insurance schemes chosen, using a purposive sampling technique and unstructured interview questions. The interview questions covered respondents' background characteristics as well as questions measuring the study's objective, such as the extent of health insurance scheme utilisation and health-seeking behaviour pathways. The respondents were chosen to reflect differences in age, gender, and years of experience, seniority at current organisation, religion, and ethnicity.

Table 3.2: Data Sampling Techniques by Sample Population and Instruments

Sample population	**Quantitative**	**Qualitative**	
	Questionnaire	**IDI**	**KII**
Employees	457	24	
Management Staff of selected Private organisations			8-(M-5, S-3)
Healthcare Providers (Medical Doctors) from NHIS accredited hospitals			4
HMO Managers			2
NHIS Executive Officers			2
Total	**457**	**24**	**16**

NB: IDI = In-Depth Interview, KII = Key Informant Interview, M = Manufacturing, S=Service, HMO= Health Maintenance Organisation

Table 3.3: Matrix Showing Research Instruments by Objectives

S/N	Research Instruments	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5
1	Questionnaire	√	√	√	√	
2	Key Informant Interview	√	√			√
3	In-Depth Interview	√	√	√	√	

Table 3.4: Data Analysis Matrix by Objectives, Tools and Questions

Objective	Indicators	How indicators were examined	Tools and Questions	Reliability	Statistical Analysis
Socio-demographic data of respondents	• Age • Educational level • Family type • Marital Status • Religion • Income per month • Sex, etc.	Socio-demographic characteristics of employees	- Questionnaire: (Que 101 -112)		- Simple percentages - Mean
1. Investigate the extent to which HIS is utilised by employees in private organisations	Frequency of illness, healthcare preferences, reasons for choice of health care, perception of HIS, enrolment status, level of utilisation of HIS, perception of illness, influence of significant order	Frequency of illness (very often, often, rarely, not at all), healthcare preferences (HIS hospital/clinic, other hospital/clinic, self-medication, informal healthcare services), reasons for choice of health care (affordability, quality services, proximity, family/friends influence, organisational influence), perception of HIS (appropriate, inappropriate), level of utilisation of HIS (high, moderate, low)	- Questionnaire: (Que 201 - 212) - IDI and KII guides	$\alpha = 0.72$	- Simple percentages - Bar charts - Chi- Square -Logistic regression - Content analysis
2. Examine the influence of adoption of HIS on health-seeking behaviour among employees in private organisations	Perception of adoption of HIS by organisation, adoption of HIS by organisation, awareness of HIS adoption by organisation, preference for healthcare, perceived benefit, health funding source, health-seeking behaviour	Perception of adoption of HIS by organisation (positive, negative), awareness of HIS adoption by organisation (aware, not aware), preference for healthcare (HIS hospital/clinic, other formal healthcare, informal healthcare), perceived benefit (positive, negative), health funding source (HIS, out-of-pocket), health-seeking behaviour (appropriate, not appropriate).	- Questionnaire: (Que 301 -315) - IDI and KII guides	$\alpha = 0.71$	- Simple per centages - Bar charts - Chi- Square - Logistic regression - Content analysis
3. Compare the pathway to health-seeking among employees in private organisations	Actions taken when experience health problem, number of health care visits during illness, forms of healthcare facilities visited, place of visit, duration of stay, reason for choice of place of visit, reason leaving a place of visit to another	First action taken when experience health problem, number of health care visits at last illness, forms of all healthcare facilities visited at last illness, first place of visit, last place of visit, duration of stay at each place of visit, reason for choice of each place of visit, why leave a place of visit to another	- Questionnaire: (Que 401 -408) - IDI guide	$\alpha = 0.70$	- Simple percentages - Bar charts - Chi- Square - Logistic regression - Content analysis
4. Determine gender differentials in health-seeking behaviour among employees in private organisations	Gender of respondents, gender differences among private employees who are enrolled in the scheme, gender policy on HIS how issues related to gender is handled	Gender of respondents, gender differences among private employees who are enrolled in the scheme, gender policy in HIS that may influence health-seeking behaviour and utilisation of HIS among employees, how issues related to gender is handled in the scheme with regard to household's enrolment	- Questionnaire: (Que 108, 206, 210, 308) - IDI and KII guides	$\alpha = 0.71$	- Simple percentages - Chi- Square - Independent T-Test - Content analysis
5 Examine the challenges and experiences of employers in the adoption of health insurance scheme in private organisations	Employers ' satisfaction with the adoption and utilisation of HIS, complaints that are often received from employees concerning the scheme, cost effectiveness relative to out-of-pocket expenses and funding.	Level of employers' satisfaction with the adoption and utilisation of HIS, extent of complaints that are often received from employees concerning the scheme, level of cost effectiveness relative to out-of-pocket expenses and funding.	- IDI and KII guides	N/A	- Content analysis

Note: HIS – Health Insurance Scheme, IDI – In-Depth Interview, KII – Key Informant Interview, α – Reliability Cronbach

2.8 Validity of the Instruments

The process of content validity was used to assess the extent to which the study instruments were able to achieve their objectives by cross-examining and verifying item information. The knowledge gained from previous investigations, a literature review, a theoretical framework, and research methods all contributed to the instrument's content. Furthermore, the instruments used in this study were validated by the research project supervisor, who is an expert in the field of Sociology, and other lecturers who are also experts in the field of Medical Sociology, Industrial Relations, and Health Demography. They were consulted to review the research instruments and items. The goal was to ensure the instruments' face and content validity, as well as measure the research questions and objectives of this study. The experts consulted, including the researcher's supervisor, provided necessary criticism and amendment suggestions on the draft research instruments. As a result, some items in the questionnaire and interview guides were changed. Only the items that remained were relevant and valid, and they comprised the content of the research instruments.

2.9 Reliability of the Instruments

For the study, the re-test reliability co-efficient was used. To determine the reliability of the instruments, the questionnaire instrument was pre-tested on 30 respondents (employees) who were not included in the scope of the main study. To ensure the content's reliability, the qualitative instruments, including the KII and IDI guides, were pretested on relevant hospitals, management, and stakeholders of the National Health Insurance Scheme outside of the institutions and organisations chosen for this study. Following the pre-test, the instruments were examined and any necessary changes were made before the draft version. The reliability co-efficient of each objective in the questionnaire instrument was calculated, yielding internal consistency values of at least r = 0.7. For instance, Cronbach's alpha showing the level of internal consistency for the extent to which health insurance scheme is utilised by employees was r =0.72; influence of adoption of health insurance scheme on health-seeking behaviour was r =0.71; pathways to health-seeking among employees was r =0.70; and gender differentials, 0.71.

2.9 Method of Data Collection

To ensure data collection efficiency, the researcher hired and trained two research assistants on how to administer the questionnaire instrument. The research assistants received training on ethical standards and other controls, such as verbal instructions, and confidentiality of information received was stressed on. Each research assistant collaborated with the researcher in the organisations sampled for the study to effectively coordinate research instrument administration and retrieval. Before administering the instrument, the researcher and her assistants obtained permission from the Human Resources Department in each organisation. The purpose of the study was explained to the respondents, and they were informed that they could choose whether or not to participate in the study. Those who gave informed consent to participate were encouraged to give honest answers to the items or questions asked, with the assurance that their anonymity would be protected and that any information they provided would be treated confidentially and used only for the purpose of this study. To ensure the integrity of data collection, the researcher was present during questionnaire administration to provide explanations as needed. In some cases, the researcher and her assistants waited or returned to retrieve completed copies of the questionnaire from respondents. At the end of the exercise, the respondents and the authorities in each organisation were thanked for their cooperation.

2.10 Methods of Data Analysis

Respondents' demographic data were analysed using descriptive statistics such as frequency and percentages. Tables and charts were also used consistently in the presentation of results. Chi-square, Independent T-test, and Regression Analysis were used to test the key research variables. The chi-square test was used to examine the relationship between variables. The Independent T-test was used to determine whether there was a significant difference between variables. At the 0.5 level of significance, regression statistics were used to test the estimation effect of relationships between one or more independent variables and a dependent variable. The IBM Statistical Packages for the Social Sciences (SPSS) version 24 was used for all quantitative statistical analyses. ATLAS qualitative software was used to conduct content analysis on the qualitative data.

Table 3.5: Variable Descriptions, Coding and Measurements

Variables	Description	Coding	Measurement
DEPENDENT VARIABLES			
Health-seeking behaviour	Actions or steps taken by a person who perceives himself or herself to be sick for the purposes of recovering	Appropriate =1 Inappropriate = 0	Dummy
Extent of HIS utilisation	Level of utilisation of HIS	Not utilised = 0 Partially utilised = 1 Adequately utilised = 2	Categorical/ Ordinal
Use of organisation's adopted HIS	The HIS hospital/clinic and HMO adopted by the organisationof work	Not used =0 Used =1	Dichotomous/ Nominal
Treatment pathways of employees	Different ways or mechanisms utilised by employees in managing their health for a desired health outcome	Not used HIS pathway = 0 Combined pathways = 1 Used HIS pathway only = 2	Dichotomous/ Ordinal
Gender differentials in use of HIS	Variations between males and females that are based on social construct	Male =1 Female = 2	Dichotomous/ Nominal
INDEPENDENT/MODERATING VARIABLES			
Age	Current age of respondents	Numerical	Continuous/ Ratio
Educational status	Highest educational attainment of respondents	Primary =1 Secondary =2 Tertiary (1st degree) =3 Postgraduate = 4	Categorical/ Ordinal
Marital status	Current marital status of respondents	Married =1 Single =2 Divorced =3 Widowed =4	Categorical/ Nominal
Grade level	Current categorical grade level of respondents	Junior staff =1 Senior staff =2	Dichotomous/ Nominal
Income	Average monthly income of respondents	Less than N31,000 =1 N31,000-N50,999 = 2 N51,000-N99,999 = 3 N100,000 and Above =4	Categorical/ Ordinal
Number of children	Total number of children below the age of 18 years under the direct care of respondents	0 = 1 1-2 = 2 3-4 = 3 5+ = 4	Categorical/ Ordinal
Family type	The type of immediate family a respondent identified self with	Monogamous = 1 Polygamous (polygyny) =2	Categorical/ Nominal
Grade level	The grade level of employees at place of work	Junior = 1 Senior = 2	Categorical/ Nominal
Sex	The biological and physiological attribute of respondents	Male = 1 Female = 2	Categorical/ Nominal

2.11 Ethical Considerations

The researcher received ethical approval from the University of Ibadan's Social Sciences Ethical Review Committee, with approval number UI/SSHREC/2021/0005. An effort was also made to protect the dignity and privacy of each respondent who provided valuable information for this study. The respondents' informed written consent was obtained after explaining the purpose of the study and their roles to them. The respondents were made aware of their right to withdraw from the study if their rights were violated in any way.

Informed Consent

Prior to the interview, respondents' consent was obtained. Before the interview, each interviewee was given advance notice to ensure their readiness, awareness, and understanding of what the interview entails, the purpose of the study, and the benefits associated with participation. Health care authorities, HMOs, private organisations, and the Enugu State Government were all consulted. The researcher also used tape recorders, but permission from the respondents were obtained first. Respondents were informed of their right to terminate the interview if they felt uncomfortable continuing.

Confidentiality of Data

The confidentiality of the information provided by respondents for this study was maintained. Instead of names, respondents were assigned code numbers. This was done to ensure that respondents remained anonymous during the coding, analysis, and presentation of results.

Voluntariness

The key informant interview, in-depth interview, and questionnaire were all voluntary. If a respondent refused to participate in the study, they were not threatened. Furthermore, nothing was given to respondents in exchange for their participation in the interview other than an ethical appreciation for taking part in the study.

Non-malfeasance to participants

The research questions were not intended to cause respondents emotional, physical, or social concerns or problems. As a result, if respondents perceived harm or became uncomfortable with any of the questions asked, they were advised to either ignore the question or withdraw completely from the interview.

Beneficence

The study provided no tangible financial or material benefits to participants, but it did improve their knowledge of health insurance scheme and health seeking behaviour.

CHAPTER FOUR

RESULTS AND DISCUSSION

This section of the study presents the results and discussion of the field data analysis findings. Percentages, frequencies, chi-square, t-test and regressions were used to present the data. This chapter is divided into sub-sections based on the study's objectives and research questions. These include the extent to which health insurance scheme is used by employees in selected private organisations in Enugu State, the impact of health insurance scheme adoption on employees' health-seeking behaviour, the treatment pathways of employees who use health insurance schemes, gender differences in health insurance scheme adoption among employees, and the challenges and experiences of employers in health insurance scheme adoption.

4.1 Background Characteristics of Employees in Studied Private Organisations

The socio-demographic and economic characteristics of respondents are shown in Table 4.1. More than half of the employees sampled were between the ages of 30 and 49. The most common age group among respondents was 30-39, accounting for 39.2 percent of all respondents. The vast majority of the employees were married (70.8%). Over 70 percent of respondents had at least one child, with 34.7 percent having 1-2 children and 32.1 per cent having 3-4 children. The majority of respondents were educated, with over 77.4 percent having a tertiary education. The majority of respondents were Christians (88.4%). This was expected given that the study was conducted in South-Eastern Nigeria, where the majority of the population is Christian.

Table 4.1: Background Characteristics of the Respondents

Characteristics	Frequency (N=457)	Percentage
Age (in years)		
18-29	63	14.1
30-39	175	39.2
40-49	132	29.6
50+	76	17.0
Marital status		
Single	121	26.8
Married	320	70.8
Separated/Divorced/Widowed **Number of children**	11	2.4
0	120	26.7
1-2	156	34.7
3-4	144	32.1
5+	29	6.5
Sex		
Male	260	58.6
Female	184	41.4
Education		
Below tertiary education	108	22.6
Tertiary education	349	77.4
Religion		
Christianity	395	88.4
Islam	35	7.8
Traditional **Family type**	17	3.8
Monogamous	390	89.4
Polygamous (polygyny) **Grade level**	46	10.6
Junior staff	155	43.9
Senior staff	284	52.1
Average monthly income		
Less than N31,000	54	12.8
N31,000-N50,999	67	15.9
N51,000-N99,999	99	23.5
N100,000 and above **Type of Organisation**	201	47.7
Manufacturing	259	56.7
Service	198	43.3
Name of HMO use		
Zenith Medicare	258	76.6
Venus Medicare	55	16.3
Axa-Mansard	13	3.9
Greenfield HMO	11	3.3

NB: HMO = Health Maintenance Organisations

Only a small percentage of those sampled (10.6%) came from polygynous families. Senior staff members made up slightly more than half of the respondents (52.1%). A small proportion of respondents (12.8%) earned less than the national minimum wage of 30,000 naira per month. Around 47 percent of those sampled earned more than 100,000 naira per month. Fifty-seven percent of those polled worked in the manufacturing industry. About 43 percent were employed in service organisations. The majority of respondents' HMO was Zenith Medicare (76.6%). This was followed by 16.3 percent of those whose HMO was Venus Medicare.

4.2 The Extent to Which Health Insurance Scheme is Utilised by Employees

This section presents results on the extent to which health insurance scheme is utilised by employees. Figure 4.1 shows the percentage distribution of respondents by extent of health insurance scheme utilisation. According to the findings, nearly half of the respondents (46%) partially utilised health insurance scheme. Thirty-two percent of the respondents adequately utilised health insurance scheme, while twenty-two percent did not utilise health insurance scheme at all, despite their organisations' adoption of the health insurance scheme for employees. This implies that organisations' adoption of the health insurance scheme is important, however ensuring that staff utilise this benefit appears to be more important, as there may be some factors hindering employees from using the scheme as expected.

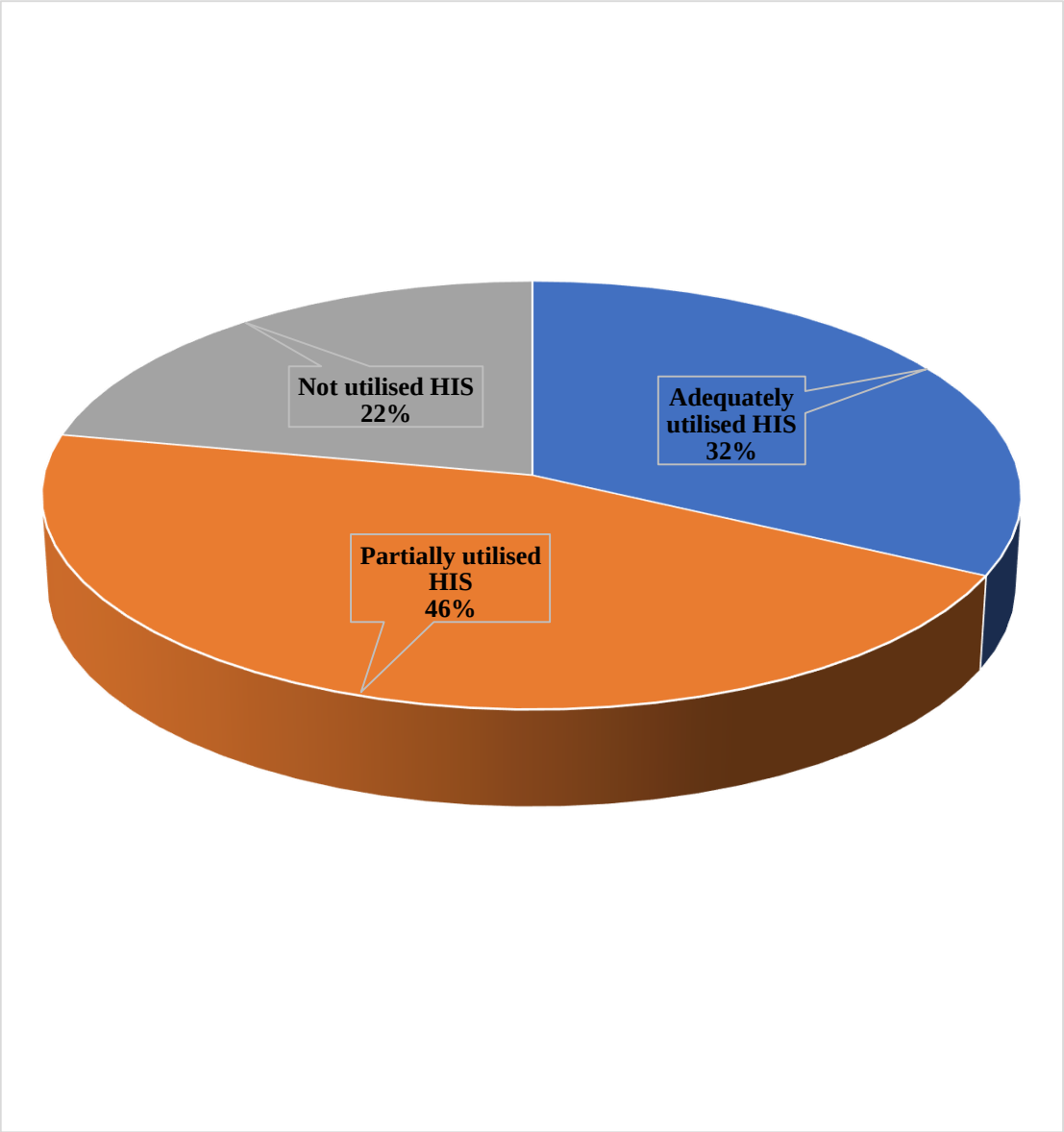

Fig. 4.1: Percentage Distribution of Respondents by Extent of Health Insurance Scheme Utilisation

The quantitative finding above is consistent with the qualitative finding, which revealed that approximately 70% of employees in the private sector who have adopted health insurance schemes utilised the scheme to address health needs. According to an interview with a Business Manager in one of the manufacturing industries studied, the HIS policy is for all staff and is mandatory as part of their benefits, though employees can still access medical care outside of the scheme. According to the manager, employees who used healthcare outside of the scheme are expected to pay for it. However, she added that one of the challenges affecting the extent of staff utilisation of the scheme is the scheme's limited coverage of illnesses, which causes some employees to be disappointed when they are asked to pay for a portion of medical treatment that is not covered by their enrolled HIS scheme. According to the interviewee:

> I can say that the extent of our employees' utilisation of HIS is up to 70%. When the need arises, the staff makes use of the HIS... The HIS policy applies to all employees... In fact, it is mandatory, but individuals have the option of seeking medical care outside of the scheme at their own expense... One of the factors influencing employees' use of the scheme is that its coverage or scope is limited to certain illnesses. Because not all illnesses are covered, employees are sometimes disappointed when they become ill. However, it prevents employees from running helter-skelter when sick **(KII/Female/Business Manager/Manufacturing Industry/13 years of service, 2022)**

The interview revealed that, while the scheme does not cover all illnesses, it has assisted many employees in not running helter-skelter when sickness occur. Another interviewee, an operational manager from the service industry, stated that at the time of the interview, more than 75% of their employees were using the HIS scheme. The operational manager, stated that her service industry pays for all of her employees' health-care costs every year. Expenses not covered by the scheme enrolled in by employees, according to her, are those that the company does not pay for. When a health-care expense is not covered by the HIS, the employee must pay for it out of pocket. The Operational Manager revealed that employees in her service industry frequently use multiple HMOs at the same time.

The interview revealed the importance of employers paying for the scheme on time, as failure to do so usually results in employees being denied access to health care services when they visit the hospital for health care. As revealed in the interview, this tends to

result in some employees using HIS infrequently. According to the interviewees' own statements:

> Employees find it convenient to utilise HIS... The scheme is used by more than 75% of the employees. All they have to do is pick up their cards and go to the hospital whenever they are sick... Second, the organisation does not have to pay any additional bills for the year. Once the subscription is paid, the organisation will be sure that they have settled their medical budget for the year… Our employees utilise more than one HMOs. They use it as soon as there is need for that… The organisation's health policy is that we pay the entire bill. The workers do not pay anything. They will only pay if the illness is not covered by our insurance… If the organisation fail to pay their subscription amount on time, the employees will be denied medical care... Employees will not be attended to, and if they develop illnesses that are not covered by the plan, they will not be attended to as well. **(KII/Female/Operations Manager/Service Industry/12 years of service).**

An employee interview supported the motion that a large number of employees are using the HIS in private sectors that have adopted the programme. According to the employee interviewed, staff awareness of the importance of the scheme is an important factor motivating employees to make extensive use of the HIS plan. Other motivators mentioned by the employee include the HIS's low cost and promotion of healthy family lifestyles. Using these words, the interviewee explained:

> Because there is awareness about HIS, a large number of employees at my workplace uses it... HIS is a simple and inexpensive scheme... The advantage is that it saves money... It ensures/promotes a healthy family way of life (**IDI/Female/Employee/Senior Staff/Manufacturing Industry/8 years of service).**

An employee also stated that the majority of employees utilised HIS because the scheme is good and provides low-cost health care. According to the employee interviewed, the only issue with the program is the waste of time in the hospital and the administration of ineffective drugs to patients. Aside from these, the employee stated that HIS is better compared to the out-of-pocket health care system. Her statements are as follows:

> The health insurance scheme is great... It offers low-cost health care. The only issue I see with the scheme is the waste of time in hospitals and the administration of ineffective drugs to patients... I prefer the HIS system to the out-of-pocket health-care system... (**IDI/Female/Employee/Senior Staff/Service Industry/7 years of service).**

Another employee made a similar point, stating that while HIS is a new phenomenon in Nigeria, and particularly in Enugu State, the program's benefits include the fact that it is accessible and affordable to many employees whose organisations have adopted the scheme and registered employees. Because of the nature of the scheme, the interviewee stated that he prefers HIS to out-of-pocket expenses. According to him: *HIS is a novel phenomenon, particularly in this part of the country... The program's advantages include its accessibility and affordability... I actually prefer HIS to out-of-pocket expenses*.

Figure 4.2 depicts the percentage distribution of the 22 percent of respondents who did not utilise HIS by reason for non-utilisation of health insurance scheme. According to the results, among the 22 percent of the respondents who did not utilise HIS, more than half of the respondents (69.4%) did not use health insurance scheme because they believed they were not frequently sick. This was followed by 10.3 percent who stated that they prefer other forms of health care treatment to using HIS hospitals. Other forms of illness treatment mentioned by respondents included seeking care from prayer houses, traditional care providers, and self-medication. Approximately 8 percent said they dislike health insurance scheme, and 2 percent said they do not believe their illness could be adequately treated in hospitals under their health insurance scheme. A closer examination of these findings reveals that many respondents believe they should only visit the hospital when they are sick. This means that if they are not sick, they do not require hospital health care services.

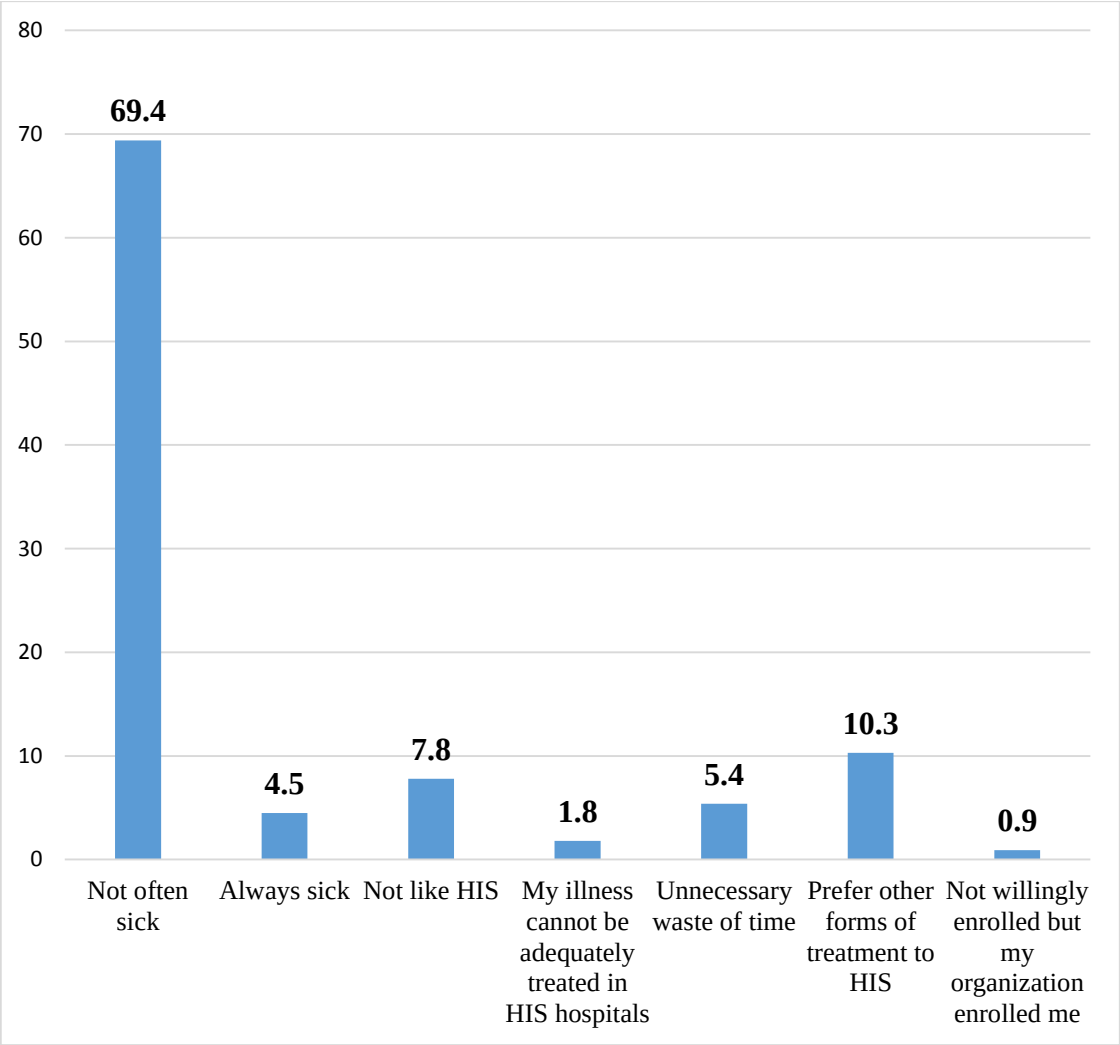

Fig. 4.2: Percentage Distribution of Respondents who did not Utilise HIS by Reasons for Non-utilisation of Health Insurance Scheme

As illustrated in Figure 4.2, the assumption that people should not go to hospitals/clinics for health care because they are not sick is disastrous and could lead to more health complications because it is appropriate to go to health care facilities for regular check-ups to prevent diseases and infections rather than waiting until they are sick. By implication, preventive medical care is as important as curative medical care because it prevents unnecessary illnesses that require curative care and keeps individuals and families healthy. Furthermore, the fact that 5% of respondents complained of wasting time each time they visited hospitals to access services under their health insurance scheme indicates that actions are urgently needed to minimize clients' time wastage at health care facilities in order to encourage more patients to always visit healthcare facilities for care when they are slightly or seriously ill.

The quantitative interview findings were supported by qualitative interviews, which revealed that many employees visit HIS hospitals for curative care rather than preventive care. For example, one employee interviewed stated that she usually goes to HIS hospital when she is sick. Despite being aware of her enrolment in the scheme, the interviewee does not visit HIS for regular check-ups to prevent illness. She cited delays, time waste, and ineffective drug administration to HIS enrolees as reasons for not using HIS hospitals on a regular basis. In her words:

> I only went to HIS hospital when I was sick." I don't just go for a check-up. Yes, I'm aware of the scheme. HIS is good, but it could be better. It saves money... However, there are numerous challenges, ranging from time waste to ineffective drugs given to enrolees by the doctors. HIS is still my favourite compared to out-of-pocket payment... (**IDI/Female/Employee/Junior Staff/Manufacturing Industry/5 years of service)**.

An interview with a health care provider revealed that time wastage is a major issue that prevents many employees from utilising the HIS programme. She explained that calling HMOs for code and other information about enrolee eligibility delays treatment time because HMOs may not respond to their calls on time. According to the health care provider, because patients are enrolled in the HIS program, health care providers are sometimes indirectly restricted from prescribing drugs that are more expensive than the expected amount of health expense for an employee, especially if the patient is unwilling to pay the extra cost. In the words of the interviewee:

> Time is usually wasted as we begin calling HMOs for code and other information regarding the enrolees' treatment." HMOs may not always respond on time. HMOs restrict employees' access to drugs, preventing doctors from exercising their discretion. Some HMOs are difficult to work with, and some of them owe a lot, which has an impact on our business **(KII/ Health Care Provider/Female/6 years of service)**.

Figure 4.3 illustrates the percentage distribution of respondents based on their frequency of becoming ill. As previously stated, the majority of respondents (76%) stated that they rarely get sick. Only 3% of those polled said they were "very often sick," compared to 15% who said they were "often sick." The assumption of not becoming ill frequently influences the number of times employees are likely to visit health care facilities in which they have been enrolled, particularly when the location of the health care facility is not closer to the respondents' homes of residence, especially in this part of the world where access to and utilisation is limited.

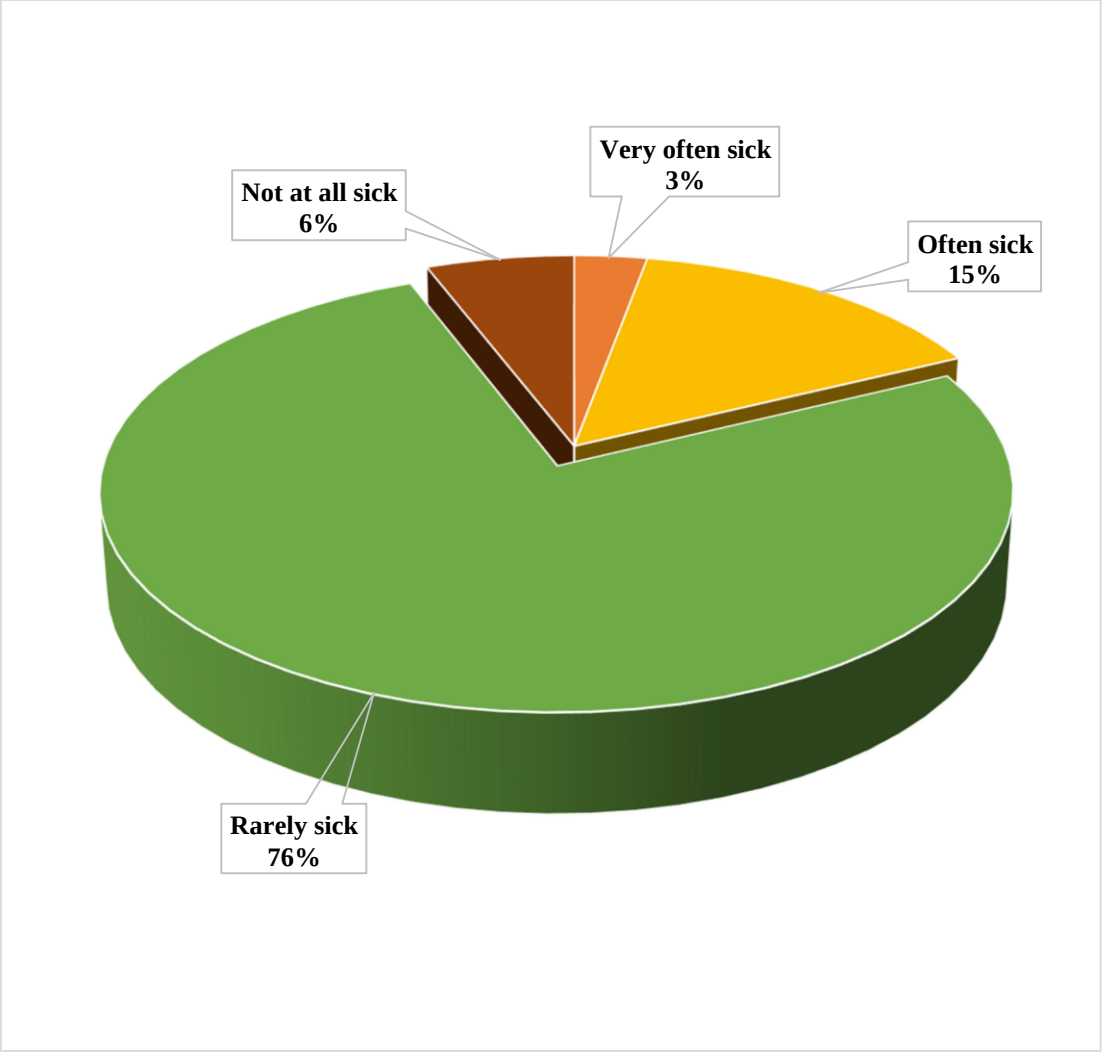

Fig. 4.3: Percentage Distribution of Respondents by Frequency of Falling Sick

Because some respondents prefer other forms of health care services to using health insurance scheme, Figure 4.4 depicts an analysis of the percentage distribution of respondents by their most preferred place of treatment when sick. Although the highest percent category of respondents (48.6%) prefers health insurance scheme services when sick, others' opinion when combined reasons for utilising other forms of health care outside HIS services exceed 60 percent. For example, 20.4 percent of respondents prefer the services of other hospitals over the hospitals in which their organisations enrolled them for health insurance scheme services. Surprisingly, while 24.2 per cent prefer traditional medical care, 4.0 per cent prefer home/self-care, and 2.4 per cent prefer faith/religious care services over health insurance scheme services.

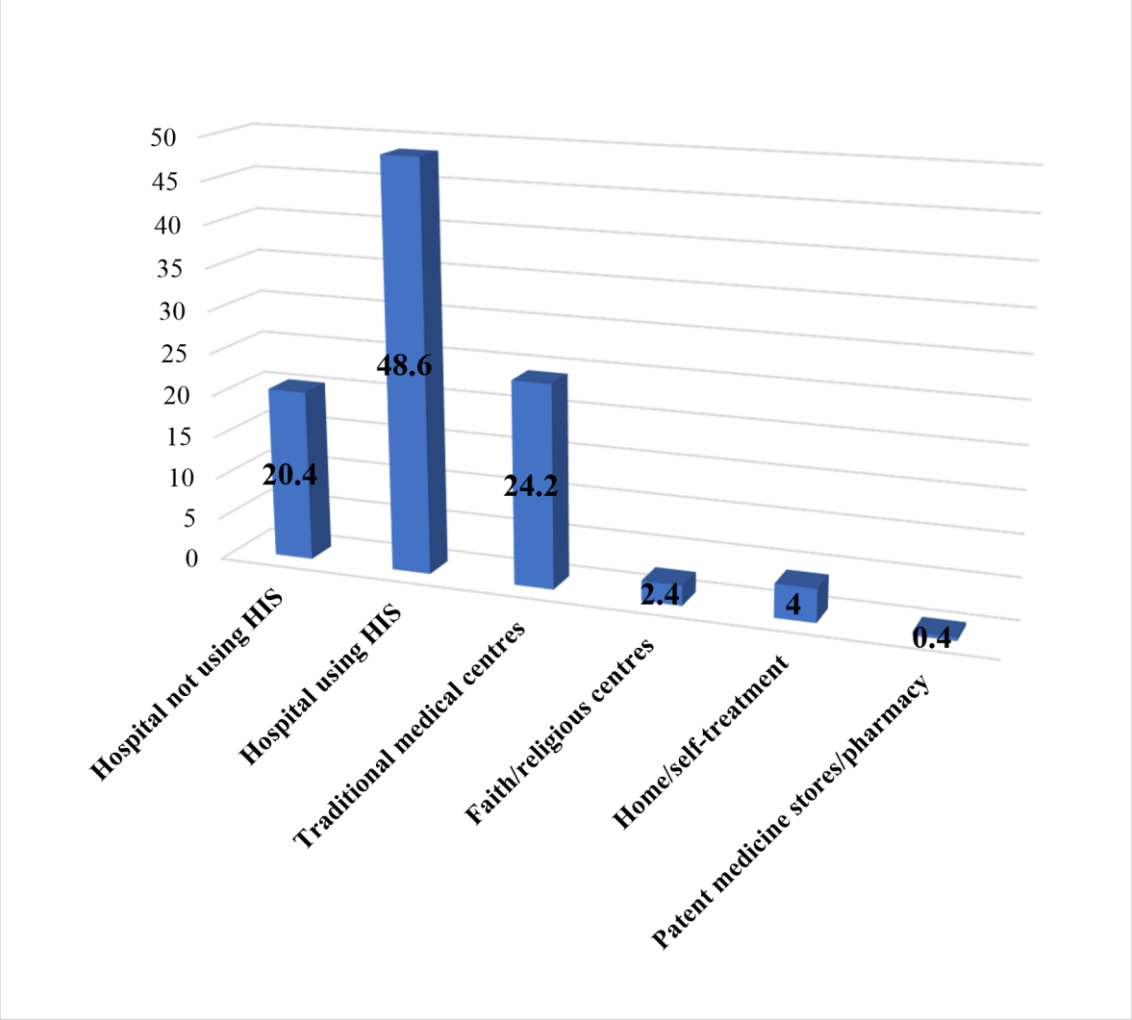

Fig. 4.4: Percentage Distribution of Respondents by their Most Preferred Place of Treatment when Sick

The qualitative findings indicate that some employees prefer not to be enrolled in the HIS program for financial reasons, unless their employers have made it mandatory for all employees. Some employees believe they do not receive adequate value for the money deducted from their salary or organisation as part of the HIS scheme. Out-of pocket payment is more cost-effective for these employees than HIS scheme enrolment. According to the interview, another factor limiting the extent of HIS utilisation by employees is employees' laxity in visiting the enlisted HMO office or HIS hospital to enrol in the scheme and begin using the HIS hospital services on time. Some employees believe that the procedure is too time-consuming and that they do not have enough time to follow up on registration procedures. In the words of the interviewee:

> Some employees do not fully utilise the HIS because some employees may opt out of the scheme due to limited financial aid unless the organisation makes it mandatory... Employees' utilisation of the scheme is impacted when they do not receive value for their money due to HMO lapses... Another issue affecting employees' use of the scheme is laxity. Some employees are too lazy to fill out their enrolment forms and begin using the scheme on time (**KII/Male/Regional Manager/HMO/15 years of service/Over 6,000 enrollees**).

An interview with one of the operational managers revealed that program funding heavily influences employees' use of the HIS program. It was stated that some employers deducted a portion of the HIS premium from employee salaries in order to make the bulk payment at the end of the month, whereas other organisations pay their employees without deducting money from their salaries in order to motivate employees. While any of these strategies may encourage employees to use the HIS scheme, if not properly managed, they may also discourage employees. This is because some employees who are aware that a portion of their salaries is being deducted may be encouraged to use HIS health care services in order to avoid wasting their resources. Furthermore, not deducting HIS premium payments from employees' salaries could serve as a motivator, encouraging employees to work hard and stay healthy in order to increase productivity. Caution is required in each case to encourage effective health care utilisation among employees. The interviewee's point was expressed in the following words:

> The scheme's funding largely determines how much HIS is used by employees... Some private organisations deduct the HIS premium from employees' salaries on a monthly basis, while others make a lump sum payment. As a result, the financial burden of making full payment for

> their employees is reduced. In some cases, organisations pay their employees without deducting money from their salaries in order to motivate them (**KII/Male/Operational Manager/HMO/11 years of service with over 5,000 enrollees**).

Figure 4.5 shows the percentage distribution of respondents based on their preferred place for medical treatment when ill. When asked where they would go for medical treatment if they were sick, slightly more than half of the respondents (51.3%) said it was based on 'good services' rendered and received. Following this, 30.5 percent mentioned 'low cost/affordability.' About 10% cited proximity and 7.2 percent cited caregiver attitudes as reasons for their preferred place for medical treatment when sick.

This means that employees are less likely to use health insurance when they believe the hospital/clinic is not providing good or quality care except for other intervening factors. It also implies that negative attitudes of health-care providers may discourage employees from using hospital-based health-care services, even if they have been enrolled by their organisations. What is troubling is that approximately 30.5 percent of respondents stated that their preferred place for medical treatment when sick is low cost/affordability of health care, implying that some employees may access health care services from hospitals/clinics not because they are receiving quality services from such hospitals/clinics, but because they believe they are receiving low cost of services from such a place compared to other places.

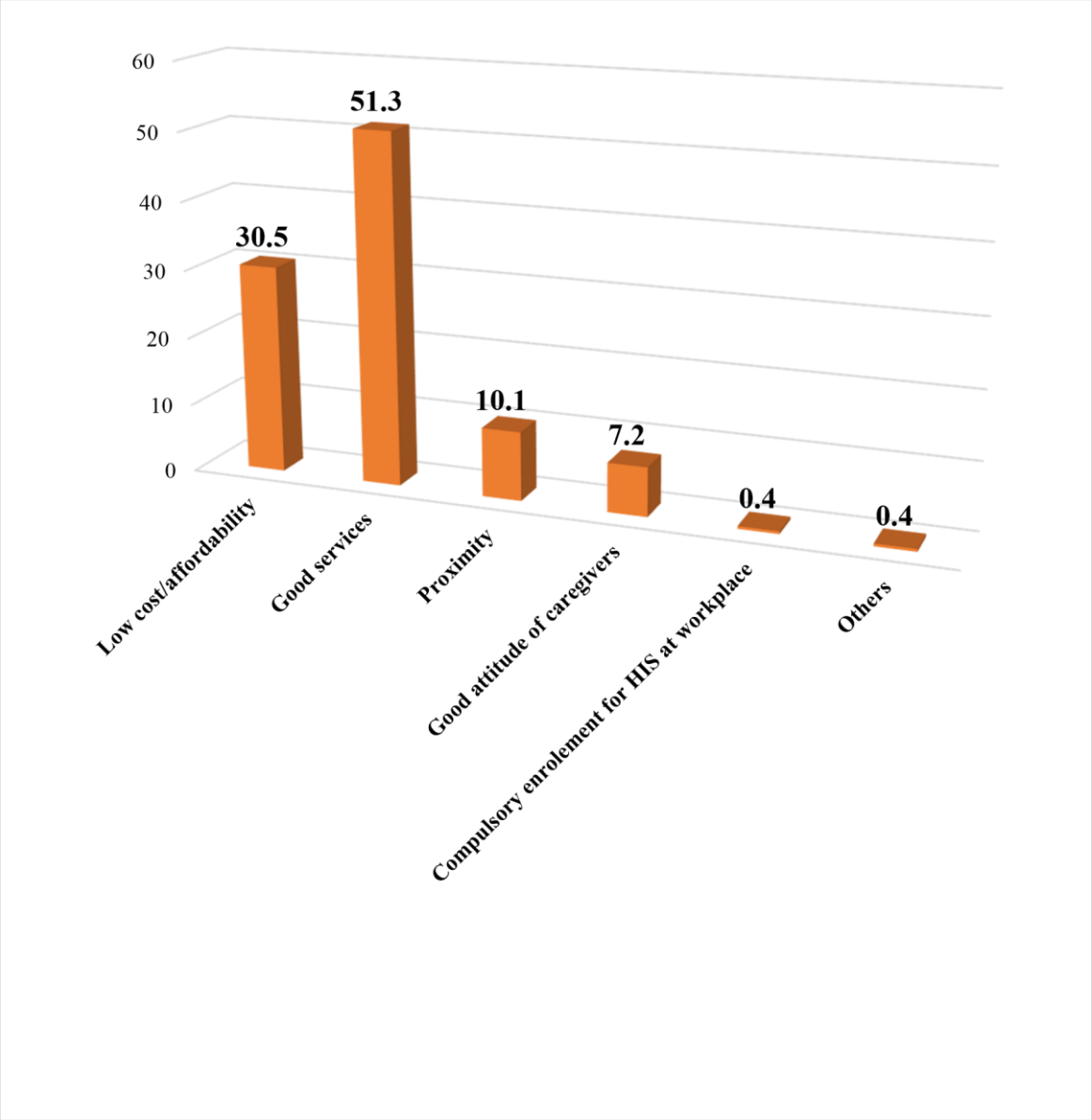

Fig. 4.5: Percentage Distribution of Respondents by Reasons for their Preferred Place of Medical Treatment when Sick

The qualitative interview findings supports the quantitative findings. An interview with an HMO Regional Manager revealed that some employees are required to enroll in HIS in some organisations, even if it is against their will. The interview revealed that the cost of utilising HIS services is usually not too high on employees because organisations bear a greater portion of the financial responsibility, making the scheme economically and employee-friendly. The interview also identified proximity to a health care facility as a barrier that some employees faced, contributing to their low utilisation of HIS hospitals/clinics. The HMO's Regional Manager, on the other hand, stated that they are aware of the proximity challenges and have taken action, and that they are still putting in more measures to increase the number of HIS hospitals/clinics in order to bring health services closer to employees. In her words:

> …the employees are obligated to the scheme to a large extent. The organisation's policy on employee use of HIS is very cost-effective and encouraging... In terms of proximity, we try to spread our hospitals across major cities or locations so that enrollees do not have to travel far (**KII/Female/Regional Manager/HMO/10 years of service/Over 4,000 enrollees**).

An interview with another respondent backed up the points about low cost/affordability and good services as factors that influence and increase the extent to which employees in private organisations utilise HIS hospitals. The interviewee stated that employers are excited about the scheme because it addresses the health needs of their employees, resulting in a healthier workforce and increased productivity in the long run. The interview session revealed that adopting HIS by organisations benefits both employees and employers by keeping employees healthy, sound, and efficient to provide productive services. In the interviewee's word:

> Employers are typically satisfied with the adoption and utilisation of HIS because it relieves them of the burden of directly catering to their employees' health care needs. The scheme also ensures that the organisation has a healthy workforce... (**IDI/Male/Employee/Senior Staff/Service Industry/13 years of service**).

Furthering the discussion on the extent of HIS program utilisation by employees for health care, an interview with one of the HMOs Zonal Managers revealed that the extent of HIS scheme utilisation is quite moderate and increasing, though not consistently as some enrollees visit HIS hospitals infrequently. The interviewee cited delivery and certain surgeries as factors that encouraged enrollees to use HIS services. According to

the interview, HIS does not usually prevent any enrollee from using its services, except for those employees who have used up their enrolment premium for the months in which they need to still use the service but pay for the extra health care services. According to the interviewee:

> According to the interviewee, employee use of HIS is moderate at times, but not frequent, especially in cases such as surgeries and deliveries... The organisation does not stop enrollees unless they have clearly exhausted all available treatments... The scheme is designed to save lives... (**KII/Male/Zonal Manager/HMO/9 years of service/Over 6,000 enrollees).**

Another interview with one of the HMOs Zonal Managers revealed that employees are pleased with their organisations' adoption of the HIS scheme. According to the interviewees, the adoption of the HIS programme and enrollment of employees in the scheme has increased the utilisation of professional health care services among employees in the private sector. It emphasized that because employers have paid for their employees' premiums, the employees are free to utilise HIS's health services. The interview session also revealed that low utilisation of HIS scheme services among employees occur most often when employers are yet to pay for employees' health premium, as health care providers do not diagnose or treat enrollees whose premium are yet to be paid. In the interviewee's statements:

> The employees are extremely satisfied with the HIS program. Payment of premium is not a major barrier to employees' use of the scheme, unless the employers have not paid for it. Enrollees are pleased... When bills are not paid, HCPs (health care providers) begin to turn down enrollees, which causes a problem with HIS utilisation by employees. (**KII/Female/Zonal Manager/HMO/13 years of service/Over 5,000 enrollees)**.

According to an interview with one of the health care providers, quality health care service is a factor determining the extent to which employees utilise HIS. The interview with the health care provider revealed that the extent of utilisation of HIS services is increasing, as many employees enrolled in the program have attested that their enrollment in the HIS program has provided them with opportunities to access health care services from health professionals that they would not have had access to if not for the HIS program. The interviewee made the following statement:

> There are so many success stories as enrollees/employees utilise HIS." Employees' financial burden is reduced as a result of the scheme. The scheme enables them to receive healthcare from professionals to whom they would not otherwise have had access to. The HIS has enabled employees to gain access to health-care services that they otherwise could not afford. (**Health Care Provider/Male/10 years of service).**

An interview with another health care provider about the extent to which employees utilise HIS reveals the scheme's friendliness, as it lowers employee mortality rates. According to the interview, the HIS operation is employee-friendly. If an employee's plan does not cover a specific package, the enrollee can pay later while the service/treatment is ongoing. According to the interviewee by doing so, at the time, life was saved first, and as a result, there are numerous reasons why private employees use HIS. The interview session also revealed that if the scheme is well organised and funded, it has a chance of succeeding in private organisations. The interview also revealed that enrolling employees in the HIS program reduces stress on doctors when patients are diagnosed early. In the interviewee's words:

> With HIS programme, cases are not presented late, which lowers the mortality rate. If the plan is not covered, the enrollee can pay later; however, life is saved first, so there are many reasons why private employees use HIS. If the scheme is well organised and funded, it has a chance of succeeding in private organisations. It relieves doctors' stress when patients are diagnosed on time (**Health Care Provider/Female/15 years of service).**

Interview conducted with another health care provider revealed that the adoption of HIS by organisations for their employees increases the extent of utilisation of health care services from facility by employees as those who are enrolled in HIS programme utilise health care earlier and more than those who are not enrolled in the programme. He associated the non-utilisation of health facility by many to lack of funds to settle hospital bills. As disclosed in the interview, health professionals also usually encouraged HIS enrollees to access health care on time as the professionals also gained more income for having attended to many patients who are enrolled in the HIS programme. According to the health expert, registering a hospital or clinic with HIS increases the facility's popularity and draws patronage from registered HIS users from far and wide. In the interviewee's words:

> HMOs require us to treat enrollees early in order to retain them. It is beneficial to have a large number of enrollees because it can increase your income. HIS raises awareness and encourages people to visit your

> hospital on a regular basis. It assists you in areas where you would not have been able to improve on your own. The usage rate of HIS is high. From my experience, those who use HIS use it more than those who do not... This is primarily due to a lack of funds... Furthermore, those with HMOs arrive at the clinic earlier and are diagnosed earlier than those without HIS (**Health Care Provider, Male, 11 years of service).**

Figure 4.6 shows the percentage distribution of respondents who believe that certain illnesses cannot be cured in conventional medical centers using a health insurance scheme. According to the findings, the majority of respondents (74.4%) believed that there are illnesses that cannot be cured in conventional medical centers using a health insurance scheme. Believing that some illnesses cannot be treated in hospitals covered by health insurance schemes can discourage employees from seeking medical health care for illness treatment. The types of illnesses that respondents believe cannot be cured in hospitals remain a question that will be addressed in our next analysis.

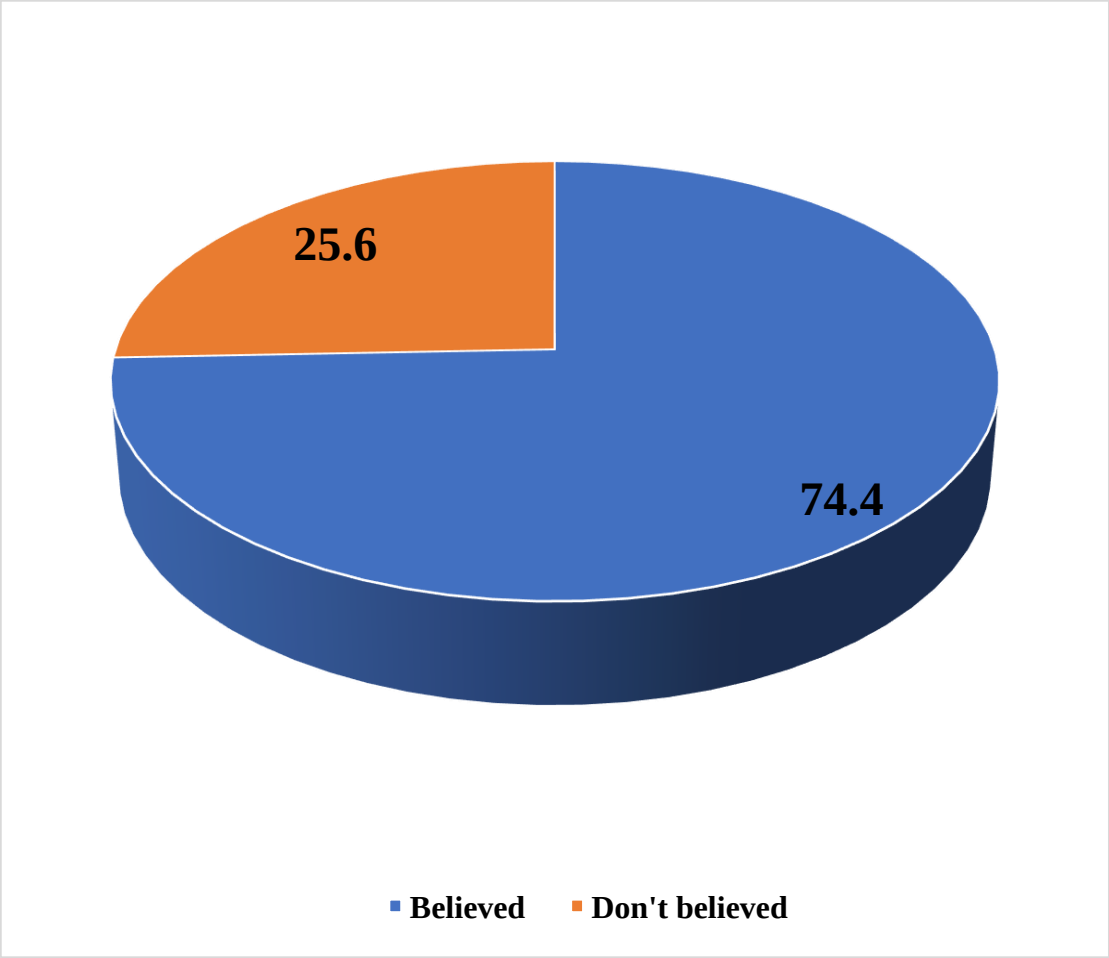

Fig. 4.6: Percentage Distribution of Respondents by Belief that there are Sicknesses that cannot be Cured in Conventional Orthodox Medical Centres Using Health Insurance Scheme

Figure 4.7 presents the percentage distribution of respondents by type of sicknesses/diseases believed by respondents to be incurable in orthodox medical centers covered by health insurance scheme. According to the findings, more than half of the respondents (53.2%) identified spiritual diseases as a type of disease that cannot be treated in hospitals covered by health insurance scheme. This was followed by 29.3 percent who identified terminal diseases as diseases that cannot be cured in hospitals under the coverage of health insurance schemes. Because a large number of respondents believe that certain illnesses cannot be cured or treated in hospitals/clinics under health insurance scheme coverage, and more than half of the respondents pointed to spiritual illnesses, it appears that superstitious beliefs are still prevalent among the study area's population. This could cause a delay in receiving medical care from experts.

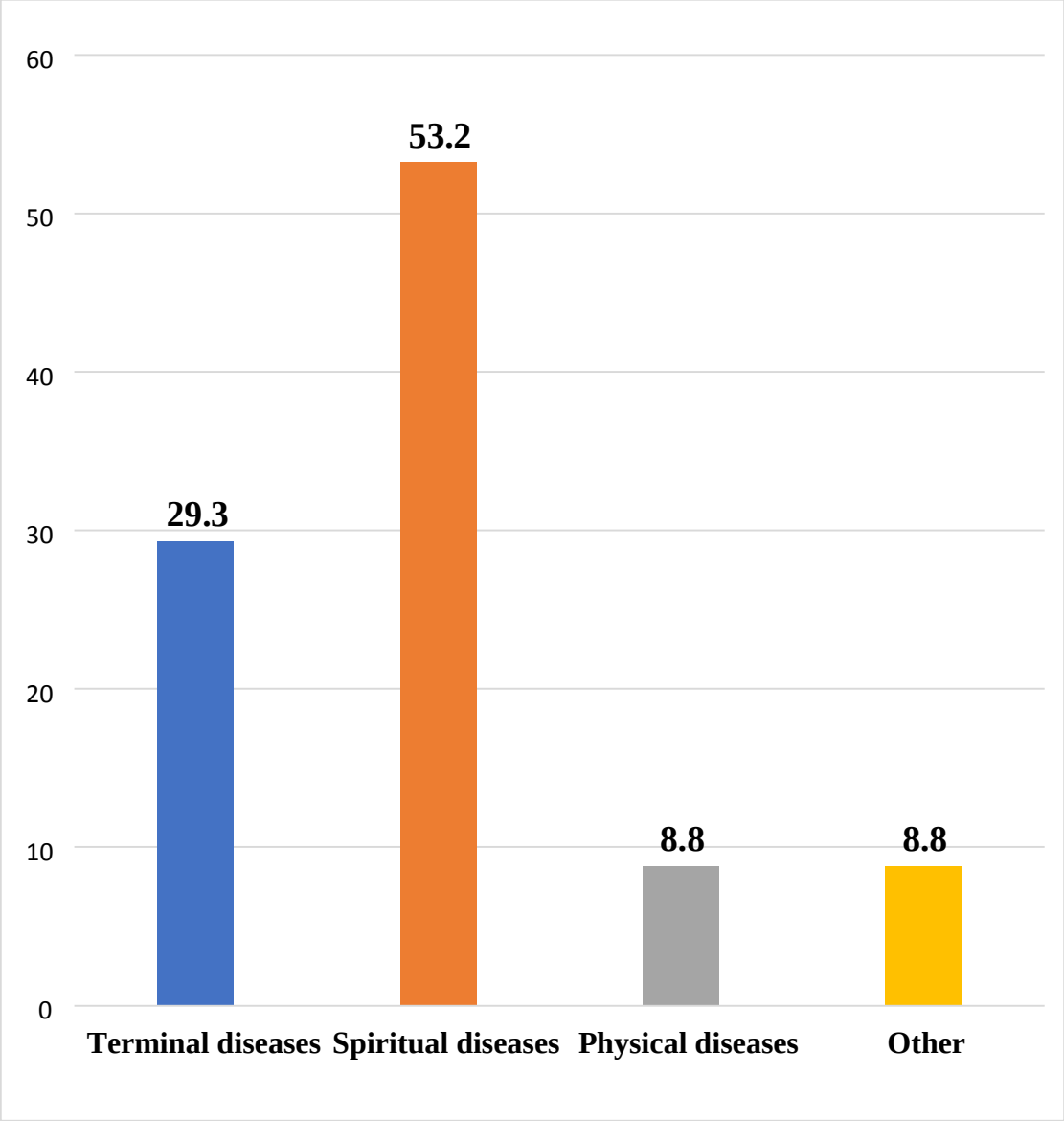

Fig. 4.7: Percentage Distribution of Respondents by Type of Sicknesses/Diseases that cannot be Cured in Orthodox Medical Centres Using Health Insurance Scheme

The Chi-square distribution of employees by the extent of health insurance scheme utilisation by selected socio-demographic variables is shown in Table 4.2. The results show that age (p-value=0.028), marital status (p-value=0.005), number of children (pvalue=0.003), sex (p-value=0.037), education (p-value=0.004), religion (pvalue=0.038), grade level (p-value=0.029), and average monthly income (p-value=0.001) all had a significant influence on health insurance scheme utilisation. For example, as respondents' ages increase, so does their use of health insurance schemes. The age group 50 and above had the highest percentage of respondents (50.0 %) who utilised the health insurance scheme adequately. Respondents aged 29 and below had the highest rate of partial utilisation of the health insurance scheme. Married people had the highest percentage of respondents who utilised the health insurance scheme adequately (51.0%).

Respondents' adequate utilisation of health insurance schemes increases as number of children given birth to increases. For instance, adequate utilisation of health insurance schemes was highest among respondents with 5 or more children (58.0%) and lowest among those with without children. Female respondents utilised the health insurance scheme significantly more adequately than male respondents, 34.8 percent versus 53.7 percent, respectively. Those with tertiary education used health insurance schemes more adequately than those without: 29.8 percent and 59.1 percent, respectively. The adequately utilisation of health insurance schemes was highest among Christians (50.6 %) and lowest among traditional worshipers (26.7%). Senior staff used the health insurance scheme more adequately (50.5 %) than junior staff (32.9%). The proportion of respondents who utilised their health insurance scheme adequately was highest among those with an average monthly income of N100,000 or more (54.0%) and lowest among those with less than an average monthly income of N31,000.

Table 4.2: Chi-square Distribution of Employees by the Extent of Health Insurance Scheme Utilisation by Selected Variables

Variables	Not utilised HIS	Partially utilised HIS	Adequately utilised HIS	X^2	Df	p-value
Age (years)						
29 and below	18.6	55.9	25.4	29.523	6	0.028*
30-39	19.3	49.1	31.6			
40-49	17.6	33.6	48.9			
50+	17.6	32.4	50.0			
Marital status						
Single	18.1	47.4	34.5	36.661	4	0.005**
Married	16.2	32.8	51.0			
Separated/divorced/widowed	45.5	36.4	18.2			
Number of children						
0	23.3	44.0	32.8	33.657	6	0.003**
1-2	15.1	50.7	34.2			
3-4	16.9	33.1	50.0			
5+	21.4	20.6	58.0			
Sex						
Male	17.2	48.0	34.8	22.429	2	0.037*
Female	18.6	27.7	53.7			
Education						
Below Tertiary	19.2	51.0	29.8	46.486	2	0.004**
Tertiary	17.5	23.3	59.1			
Religion						
Christianity	17.5	31.9	50.6	19.190	4	0.038*
Islam	21.9	46.9	31.3			
Traditional	26.7	46.7	26.7			
Grade level						
Junior staff	20.1	47.0	32.9	20.835	2	0.029*
Senior staff	16.8	32.6	50.5			
Average monthly income						
Less than N31,000	18.4	44.9	36.7	55.391	6	0.001***
N31,000-N50,999	22.7	40.9	36.4			
N51,000-N99,999	22.7	32.0	45.4			
N100,000 and above	16.2	29.8	54.0			

Chi-square values are significant at p<0.05*, p<0.01** and p<0.001***; n=457

Table 4.3 shows the results of a multinomial logistic regression on the extent of health insurance scheme utilisation by selected socio-demographic variables for employees. The analysis was carried out and presented separately for 'Partially utilised HIS vs. Not utilised HIS' and 'Adequately utilised HIS vs. Not utilised HIS', and is explained separately below for easy comprehension.

Partial utilisation of health insurance scheme

According to the result in Table 4.3, there is a significant relationship between age and partial utilisation of health insurance schemes, with respondents aged 40-49 and 50 and above being 1.5 and 2.9 times more likely to partially utilise health insurance schemes, respectively, than those aged 29 and below. Married respondents were 2.5 times more likely than unmarried respondents to partially utilise a health insurance scheme. Respondents with 3-4 children and 5 or more children were 2.0 and 2.5 times more likely than those without a child to partially utilise a health insurance scheme. Respondents with tertiary education were twice as likely as those without tertiary education to partially utilise a health insurance scheme. Islamic worshipers were 29% less likely than Christian worshipers to partially utilised a health insurance scheme. Respondents with an average monthly income of N51,000-N99,999 and N100,000 and above were 1.2 and 2.2 times more likely to partially utilised a health insurance scheme than those with an average monthly income of less than N31,000, respectively.

Adequate utilisation of health insurance scheme

The results in Table 4.3 also indicates that respondents aged 40-49 and 50 and above were 2.6 and 4.9 times more likely to adequately utilise their health insurance scheme than those aged 29 and below. Married respondents were 2.6 times more likely than single respondents to adequately utilise their health insurance scheme. Those who were not 'currently married', including the separated, divorced, and widowed, were 92 percent less likely than those who were married to adequately utilise health insurance scheme. Respondents with 3-4 children and 5 or more children were 3.8 and 3.9 times more likely, respectively, to adequately utilise health insurance scheme than those without a child. Female respondents were 2.0 times more likely than male respondents to adequately utilise health insurance scheme.

Table 4.3: Results of Multinomial Logistic Regression for Employees Showing the Extent of Health Insurance Scheme Utilisation by Selected Variables

Variables	Partially utilised HIS vs. Not utilised HIS		Adequately utilised HIS vs. Not utilised HIS	
	Odds ratio	**95% C.I.**	**Odds ratio**	**95% C.I.**
Age (years)				
29 and below (Ref.)	1.000		1.000	
30-39	1.095	0.277-1.323	2.430	1.567-3.018
40-49	1.523*	0.245-1.741	2.637**	2.534-3.025
50+	2.873**	2.334-3.502	4.868***	4.815-5.070
Marital status				
Single (Ref.)	1.000		1.000	
Married	2.513***	2.400-3.721	2.566***	1.141-2.973
Other	0.277	0.030-1.589	0.083**	0.007-0.993
Number of children				
0 (Ref.)	1.000		1.000	
1-2	1.237	0.355-1.313	2.163	1.555-2.436
3-4	2.025**	1.263-2.995	3.837**	3.416-4.123
5+	2.542**	1.102-2.899	3.912***	3.146-4.682
Sex				
Male (Ref.)	1.000		1.000	
Female	0.975	0.496-1.918	2.034***	0.499-2.143
Education				
Below Tertiary (Ref.)	1.000		1.000	
Tertiary	2.010*	0.468-2.180	3.531**	2.445-4.392
Religion				
Christianity (Ref.)	1.000		1.000	
Islam	0.711*	0.222-1.075	0.323**	0.082-1.262
Traditional	0.540	0.108-1.700	0.553**	0.100-1.052
Grade level				
Junior staff (Ref.)	1.000		1.000	
Senior staff	0.845	0.465-1.686	2.941**	1.359-3.064
Average monthly income				
Less than N31,000 (Ref.)	1.000		1.000	
N31,000-N50,999	0.845	0.239-1.994	0.131	0.095-1.358
N51,000-N99,999	1.212**	0.368-1.993	2.631***	1.212-2.962
N100,000 and above	2.231**	1.337-2.495	3.413***	2.144-3.820
Model summary: -2 Log Likelihood = 296.336; model chi-square = 122.603; Nagelkerke=0.169; n=457; p-value <0.001				

*Note: Significance at *P<0.05; **P<0.01; ***P<0.001; Ref.=Reference category;*

C.I. = Class Interval

Respondents with tertiary education were 3.5 times more likely than those without tertiary education to utilise health insurance schemes adequately. Respondents affiliated with Islamic and Traditional religions were 68% and 45% less likely, respectively, to utilise health insurance schemes adequately than Christian religious worshipers. Senior employees were 2.9 times more likely than junior employees to adequately utilise the health insurance scheme. Respondents with an average monthly income of N51,000-N99,999 and N100,000 and above were 2.6 and 3.4 times more likely to adequately utilise a health insurance scheme than those with an average monthly income of less than N31,000, respectively.

4.3 Influence of the Adoption of Health Insurance Scheme on Health-Seeking Behaviour of Employees

This section presents findings on the influence of health insurance scheme adoption on employee health-seeking behaviour. Figure 4.8 portrays the percentage distribution of respondents based on their perception of organisations' adoption of health insurance schemes to support employees' health seeking behaviour. According to the results, half of the respondents (50.1 %) thought the adoption of a health insurance scheme to support employees' health seeking behaviour was 'good.' This was followed by 33 percent of respondents who rated organisations' efforts in implementing health insurance schemes to support employees' health seeking behaviour as 'excellent.' Only 2% of respondents rate the adoption of health insurance schemes by organisations to support employees' health seeking as 'poor'. This means that a sizable proportion of respondents were positive about the scheme's implementation to encourage employees' health-seeking behaviour.

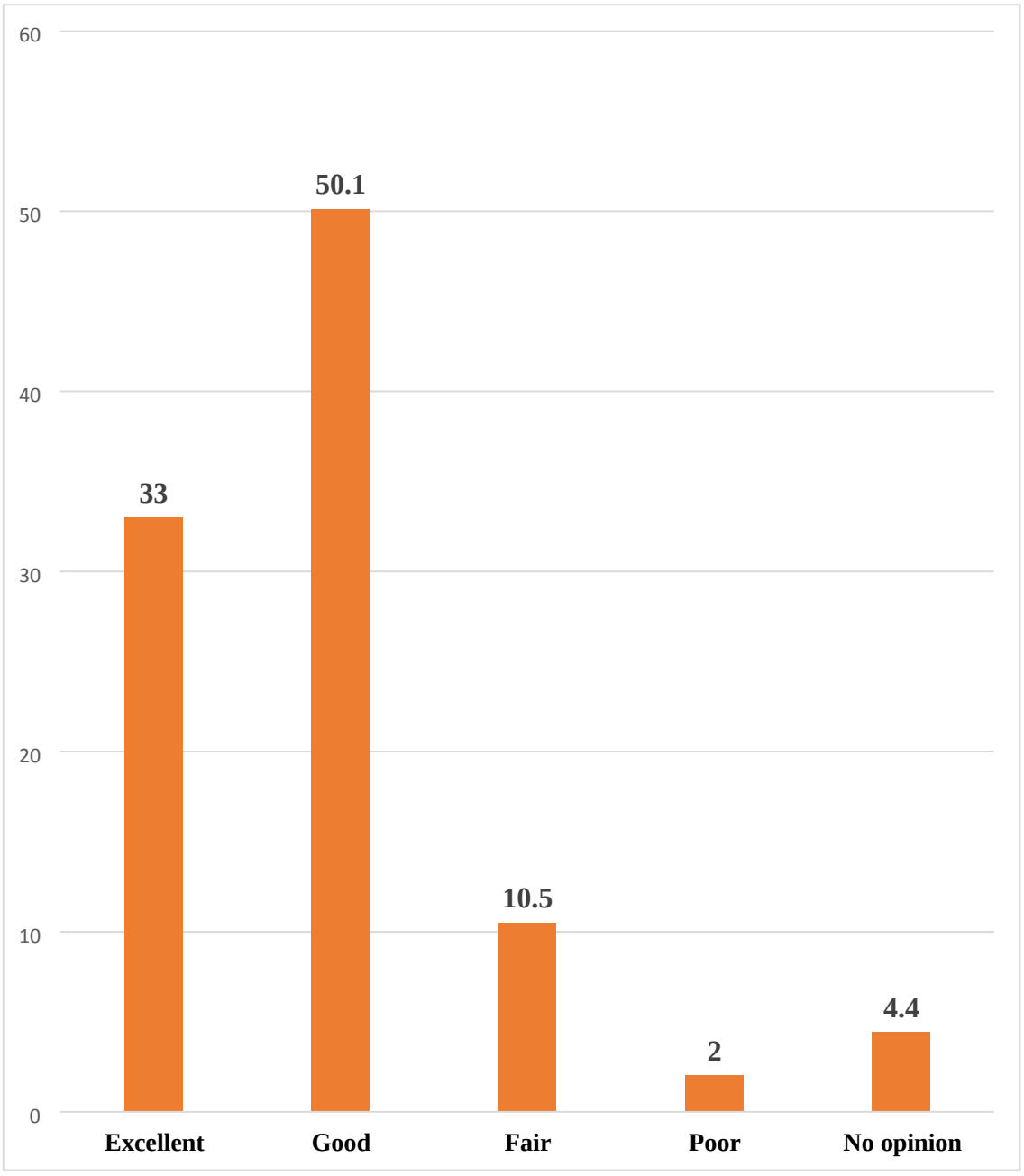

Fig. 4.8: Percentage Distribution of Respondents by Perception About the Adoption of Health Insurance Scheme by Organisations to Support Employees' Health Seeking Behaviour

The findings of the qualitative interviews support the quantitative findings in that the majority of respondents have a positive perception of the adoption of HIS by their organisations and are excited to be enrolled in the scheme. In an in-depth interview, one of the employees stated that there are numerous success stories associated with the utilisation of HIS for health seeking. The employee stated that one of the success stories on the health-seeking behaviour of employees is that whenever a family member becomes ill, that family member can visit HIS hospital to receive the necessary diagnosis and treatment. According to the employee, using the HIS has been a wonderful experience that has improved the health of employees and family members. In the words of the employees:

> The success stories on the health-seeking behaviour of employees using HIS are that whenever a family member becomes sick, that person can visit HIS hospital and receive the necessary treatment. It has been a fantastic and unforgettable experience (**IDI/Female/Employee/Junior Staff/Manufacturing Industry/8 years of work experience)**

In an in-depth interview, another employee stated that the organisational policy of enrolling employees in the HIS program has shaped his and his family's health seeking behaviour by encouraging them to seek health care from registered HIS hospitals. According to the interview, HIS is cost-effective and efficient in health care. His statement revealed that the scheme is free for employees as long as their health-care costs are covered by their HIS coverage. The following phrases were used during the interview:

> As an employee, I utilise HIS for health-related purposes because it is my company's policy... It is economical in terms of money because it is free. I used it frequently to keep everyone in my family healthy at all times (**IDI/Male/Employee/Senior Staff/ Manufacturing Industry/8 years of service)**

A key informant interview with a Business Manager in one of the manufacturing industries revealed that nearly all of the staff in his organisation, more than 70%, use HIS for health care, and that enrollment in the HIS has strongly directed employees' health seeking behaviour. He added that, while HIS has influenced employees' health-seeking behaviour, the organisations' staffs are sometimes concerned about HIS hospitals administering ineffective drugs to enrollees, despite the lack of concrete evidence to support the allegation. His statement implies that some employees may have

felt uneasy seeking health care from HIS hospitals for fear of being given ineffective drugs. In the words of the interviewee:

> Almost every member of staff here seeks medical care through HIS providers (accredited hospitals) as soon as they notice any symptom on their family members or themselves... As I previously stated, over 70% of staff members use HIS as provided by management. However, there are additional or unproven allegations of HIS hospitals dispensing ineffective drugs. Despite the fact that there is no tangible evidence to back up the allegation... **(KII/Male/Business Manager/manufacturing Industry/9 years of service).**

An interview with another Business Manager in one of the organisations studied revealed that employees have a choice in their perception of HIS and the health-seeking process because the organisations do not compel any employees to use HIS accredited hospitals for health care. According to the interview, the organisations will only enroll all employees in order to improve their health and keep them fit in order to deliver effective and efficient services and avoid health-related excuses. The interview also revealed that the HIS enrolment plan for employees does not cover all health expenses, so employees must pay for any health care services that are not covered by the enrolment plan. In the words of the interviewee:

> There are no existing regulations forcing all employees to use HIS hospitals for healthcare, but it is obvious that all employees use it to avoid using illness as an excuse for not participating in active service delivery. As a result, every member of staff must enroll... The organisation's HIS policy does not cover every illness. Some major surgeries, for example, are not covered. Employees are required to pay for such services out of their own pockets… This is extremely challenging for some of them to pay... **(KII/Female/ Business Manager/ Service Industry /8 years of service).**

Figure 4.9 illustrates the percentage distribution of respondents based on their preferred type of health care system for seeking treatment when sick. According to the findings, the majority of respondents (81.0 %) prefer health insurance schemes as a suitable type of health care system for treatment when ill. This means that the majority of employees value organisations' adoption of health insurance scheme to support their health-seeking behaviours. Despite the fact that some employees saw it differently, they saw it as a strategy that could benefit their health.

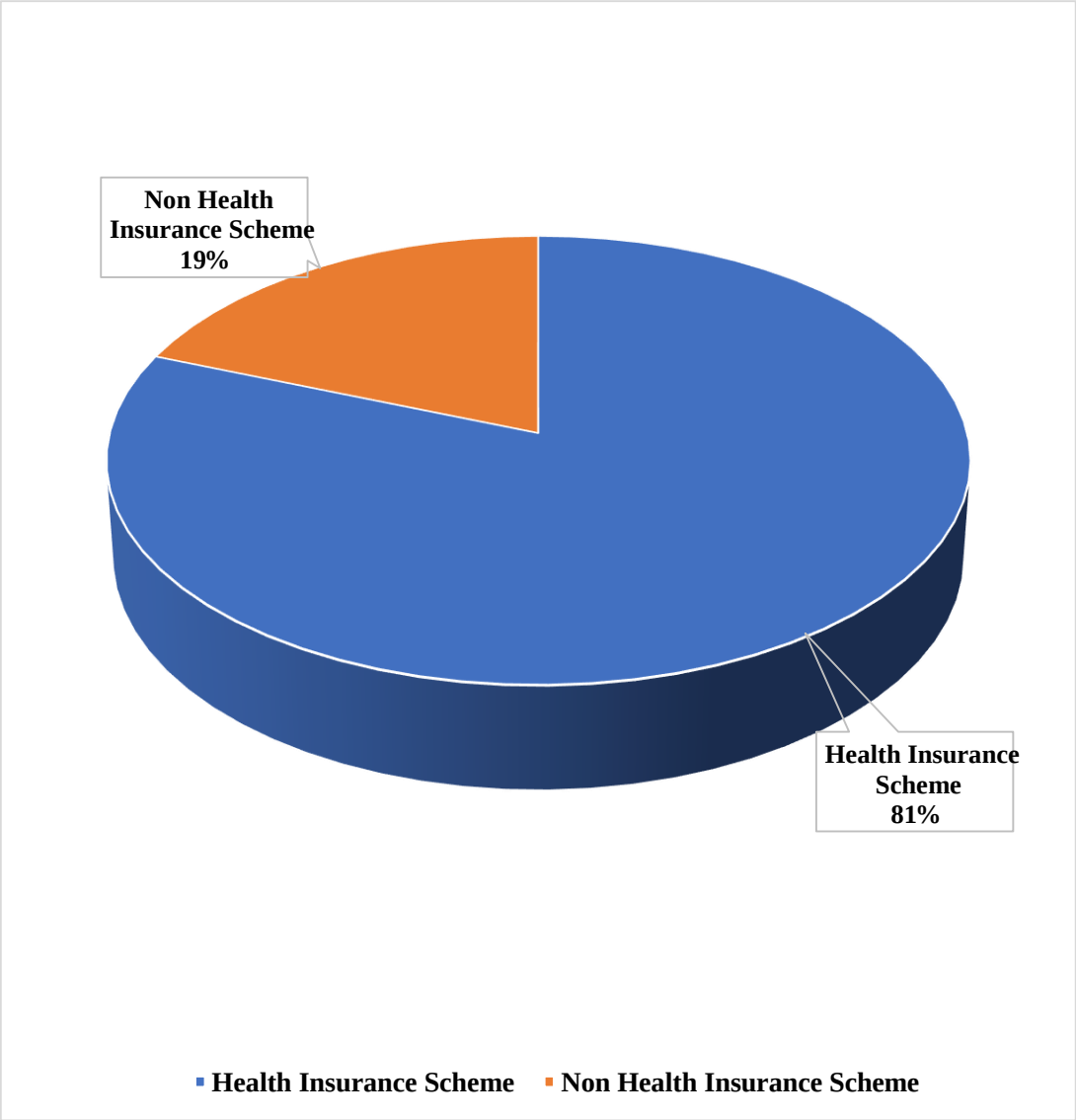

Fig. 4.9: Percentage Distribution of Respondents by Preferred Type of Health Care System for Treatment when Sick

The qualitative data reinforce the quantitative findings that the majority of respondents seek health care from HIS accredited hospitals/clinics, despite the associated challenges. An interview with one of the employees revealed that employees use HIS accredited hospitals for health care to reduce financial burden and have peace of mind knowing that their health expenses are covered by the scheme. Interaction with employees revealed that employees are enlisting in plans that will cover a broader range of health diagnosis and treatment expenses. The interview revealed that employees' perceptions of HIS health care versus other forms of health care were shaped by the hope of having their health expenses paid for. The interviewee used the following words:

> I use HIS for health-care purposes because it gives me peace of mind while reducing financial burden... The fact that the HIS scheme does not cover a broader range of treatments limits utilisation at times... The scheme has assisted in maintaining a high level of healthcare for employees. It would be preferable if payment improved to cover a broader range of illnesses and the administration of quality medicines (**IDI/Male/Employee/Junior Staff/Manufacturing Industry/9 years of service).**

Another interview with an employee in one of the service industries studied revealed that the employee used the HIS for a variety of health purposes, including child delivery. Although the employee explained that the scheme does not cover all health packages, she was overjoyed that it covered her delivery costs. The interviewee also expressed confidence that if the HIS is well managed and organized, it will be the best health-care system in the country. The employee claims that because she is enrolled in the HIS, the program frequently prompts her to seek health care from HIS-accredited hospitals on time. Enrollment in the HIS, in other words, reduces the time it takes to seek medical attention. In the interviewee's word:

> Employees who are enrolled in HIS are more likely to seek medical attention if they become ill. My baby was born when we didn't have any money... Some situations are not covered, but the HIS covered my delivery cost. My office enrolled me, and the bills are reasonable... The scheme will be the best type of health system if properly managed and adequately funded. The scheme should cover more cases... It is critical to improve the quality of drugs (**IDI/Female/Employee/Senior Staff/Service Industry/7 years of service)**.

An in-depth interview with employees revealed that enrolling employees in the HIS has positively skewed employees' health-seeking behaviour toward accessing health-care services from health-care facilities. The interaction also revealed that the health benefits

of enrolling in the scheme increase family members' use of professional health care. According to the employees, the HIS is reasonably priced and has a welcoming organisational culture. However, the employee added that the policy should be expanded to include other types of healthcare coverage, such as surgeries and expensive drugs, in order to improve employees' health-seeking behaviour. In the words of one interviewee:

> Because of HIS, my health-seeking behaviour is positively shaped... The scheme has effectively addressed many family health issues. The exclusion of certain drugs and illnesses has an impact on employees' regular and frequent use of HIS for health-seeking. HIS is reasonably priced, and the organisation's policy is welcoming... It has promise if employers adequately fund it. To improve employees' health-seeking behaviour, the policy's boundaries should be enlarged to include other types of healthcare coverage, such as surgeries and expensive drugs. **(IDI/Male/Employee/Senior Staff/Service Industry/8 years of service).**

Another employee stated in an in-depth interview that the HIS program is appropriate and has influenced the health-seeking behaviour of many employees. The interviewee specifically stated that she used HIS services during her cesarian section (CS) delivery without having to pay out of pocket. Having reaped the benefits of her organisation enrolling her in the scheme, she advocated for legislative action to ensure that all employers adopt and enroll employees in the HIS program. In the words of the interviewee:

> I must say that HIS is beneficial to employees' health-seeking... There is no money or stress in HIS presence. I successfully delivered via CS section under HIS coverage without having to pay out of pocket... What needs to be improved are HIS hospitals' limited coverage and poor services... My organisation has enrolled me in HIS because it is inexpensive. I believe that legislation requiring all employers to provide HIS for their employees will help to improve all employees' health-seeking behaviour **(IDI/Female/Employee/Junior Staff/Manufacturing Industry/8 years of service).**

An interview with the Regional Manager of one of the HMOs revealed that employees' health-seeking behaviour is usually influenced by their enrollment in the HIS program. According to the interviewee, most employees are usually excited about the scheme because it reduces their financial burden by paying for all or a portion of their health care costs. According to the interviewee, in maternity cases, especially when a caesarean section or other surgery is required, employees are usually delighted because the scheme reduces the financial burden that comes with such financial situations. According to the

Regional Manager, one can see the joy on employees' faces when they are asked to go home (discharged from the hospital without paying from their pockets). The interviewee used the following words:

> Employees are usually delighted in maternity cases, especially when a caesarean section or other surgery is required, because the scheme reduces the financial burden that comes with such financial situations... When they are asked to return home without extra cost, you can see the joy on their faces... (**KII/Female/Regional Manager/HMO/10 years of service/Over 4,000 enrollees**).

Because some respondents prefer other types of health care systems to health insurance schemes, figure 4.10 depicts the percentage distribution of respondents by reasons for preferring out-of-pocket payment in health seeking even though their organisation has adopted a health insurance scheme and enlisted them. According to the findings, more than half of the respondents (64%) prefer other types of health care systems to health insurance schemes because they want unlimited access to any health care facility of their choice. They believed that enrolling in a health insurance scheme would deny them the ability to use health care services at any health facility of their choice because not all hospitals/clinics are accessible with any type of health insurance scheme enrolment. This was followed by 18% who chose other types of health care systems over health insurance schemes in order to avoid the negative attitudes of health insurance scheme professionals. Furthermore, 15% of respondents chose other types of health care systems in order to avoid any additional payments or costs that may result from enrollment in a health insurance scheme program. By this, the respondents are referring to the additional costs that employees are expected to pay in the treatment of certain illnesses that are not fully or partially covered by their health care insurance scheme package.

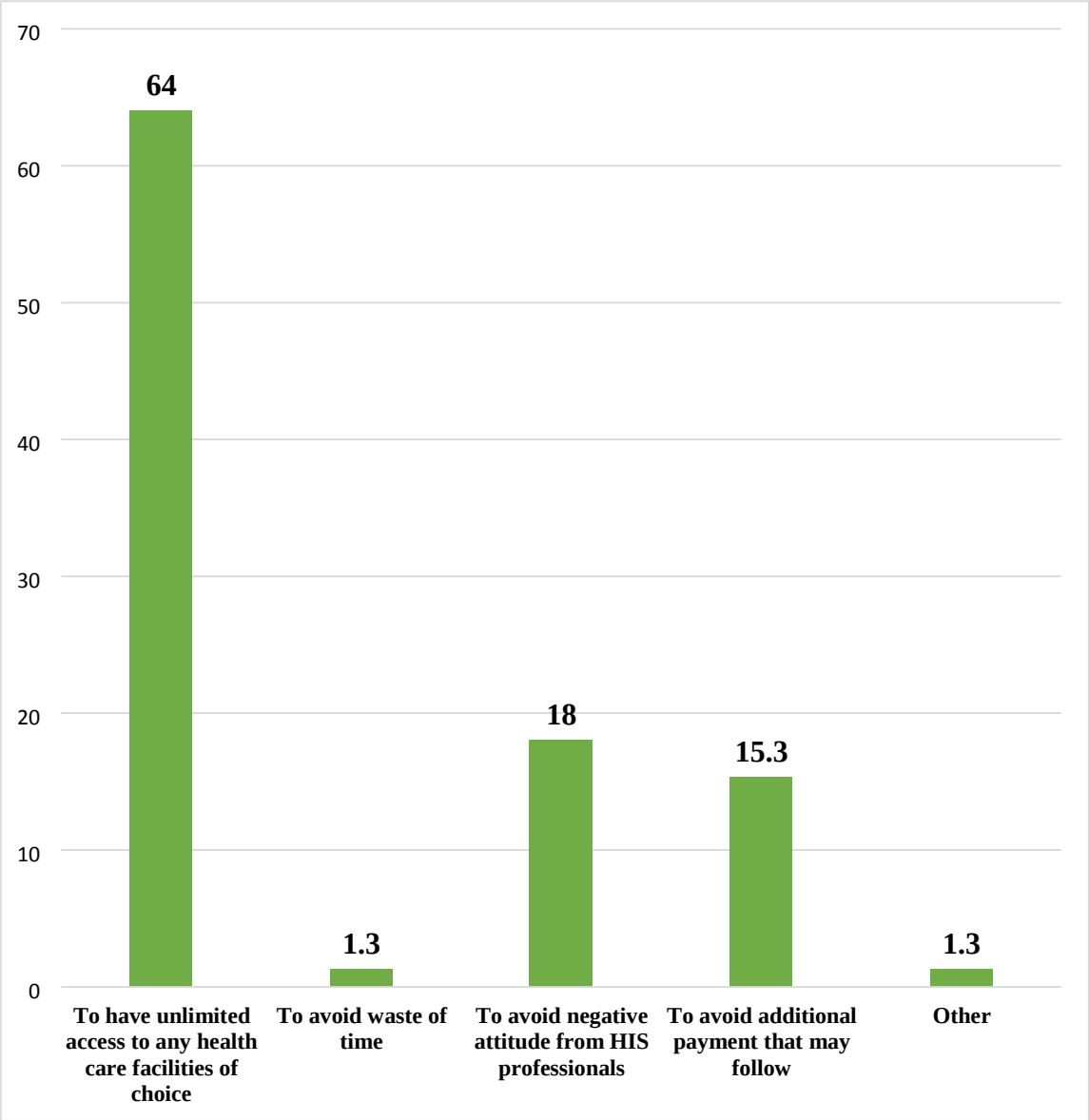

Fig. 4.10: Percentage Distribution of Respondents by Reasons for Preferring Out-of-Pocket Payment for Healthcare Seeking even when their Employer has Enrolled them in a Health Insurance Scheme Programme

In response to a qualitative interview on why some employees prefer out-of-pocket payment to HIS for healthcare seeking behaviour despite their organisations enrolling them in health insurance scheme program. According to one of the operations managers, the organisations are not monitoring any measures that could compel employees to use HIS hospitals/clinics when they are sick. As per the interviewee, organisations only have control over the payment of subscription or premium charges and not over compelling employees to use HIS health care, so there is no evidence-based data on the utilisation of HIS for health-seeking behaviour. Another factor identified by the Operation Manager interviewed is that some employees seek alternative health care of their choice because their HIS enrolment program does not cover certain illness treatments. Furthermore, as explained by the interviewee, some expensive drugs are not covered, and some hospitals near the employees are not HIS accredited, forcing some employees to seek health care from other sources. In the words of the interviewee:

> To be honest, we do not monitor the employees' health-seeking behaviour or utilisation of the scheme. This is because we assume that employees will use it as soon as they become ill... We did not bother monitoring scheme utilisation owing to the fact that payment of the subscription fee is the only control we have. As a result, there is no evidence-based information on the adoption of HIS and employees' health-seeking behaviour... However, employees would be denied access to health care if the organisation failed to pay. Furthermore, some illnesses are not covered, very expensive drugs are not provided, and some hospitals near some employees are not HIS accredited. **(KII/Female/Operations Manager/Service Industry/9 years of service).**

A key informant interview with one of the HMO's Regional Manager on the reasons why some employees are not using the HIS for their health care revealed that while some employees are satisfied with the program, some are still unhappy with the HIS's operation for various reasons, for which efforts are being made to rectify the situation. Employees who are dissatisfied with the program for one reason or another may use that reason to seek health care from a facility other than an HIS accredited facility. According to the complaint received during the interview, some employees are not using the HIS because they believe the drugs provided by HIS accredited hospitals/clinics are not safe. The interviewee said the following:

> Some employees are pleased with the care they receive at the HIS hospital, while others are dissatisfied due to the low quality of drugs provided to enrollees, as some believe. The distinction between standard and substandard drugs is frequently a source of contention. Those who believe the drugs they are given are substandard usually

> refrain from using HIS, which affects their health-seeking behaviour (**KII/Female/Regional Manager/HMO/10 years of service/Over 5,000**).

Respondents in a key informant interview explained that employees sometimes seek out-of-pocket payments because many HMOs do not collect instalment payments from their employers. Because employers cannot pay the entire premium or payment, their employees are denied free services in HIS accredited hospitals unless they are willing to pay for the services themselves. The interviewee also stated that because some employees do not visit HIS accredited hospitals because their enrolment package does not cover major illnesses and treatment, the way forward is for employers and employees to have a better understanding of a more beneficial and friendly HIS package. In the interviewee's words:

> In comparison to out-of-pocket expenses, HIS are cost effective for private organisations. Employers can help increase employee utilisation of HIS for health care by providing more benefit coverage (better plan). HMOs should also receive instalment payments from employers in order to continually improve employees' health-seeking behaviour (**KII/Female/Regional Manager/HMO/13 years of service/Over 6,000 enrollees**)**.**

An interview with additional respondents revealed that some HIS accredited hospitals routinely deny employees health care services because the HMOs in charge of their premiums owe the health care providers. Interaction with the health care provider revealed that not only do employers owe, but HMOs in charge of remitting payment or reimbursing health care providers must pay the health care providers on time in order for employees to continue receiving services. In the words of the interviewee:

> Some HMOs owe a lot of money, and when this happens, we prevent employees from receiving care, which has a negative impact on their health. If the government can step in now to assist the private sector in the area of finance, the nation's health may be secure... Employers should increase funding while remaining flexible... Sensitization should take place to increase access while also informing employers and employees about the benefits of HIS... (**Health Care Providers/Female/14 years of service)**.

Figure 4.11 illustrates the percentage distribution of respondents by types of health care used prior to their organisation's adoption of a health insurance scheme. It should be noted that some employees were already enrolled in one form or another of health insurance scheme before their organisations formally adopted the scheme for staffs,

whereas in other cases, some employees may not have been enrolled in the health insurance scheme until they were hired by their current organisations, which had already adopted the scheme. In any case, the researcher was aware of these differences and was able to address them adequately during data analysis in order to capture all variables in the analysis. Having said that, figure 4.11 shows that at the time of the survey, slightly more than half of the respondents (51.0%) were using hospitals without a health insurance scheme prior to their organisation adopting the scheme for employees. This was followed by 29% of respondents who stated that they were primarily using patent medicine/pharmacy shops prior to their organisation implementing the scheme for employees. Before their organisations formally adopted the program for employees, approximately 11% of the respondents were already enrolled in the health insurance scheme.

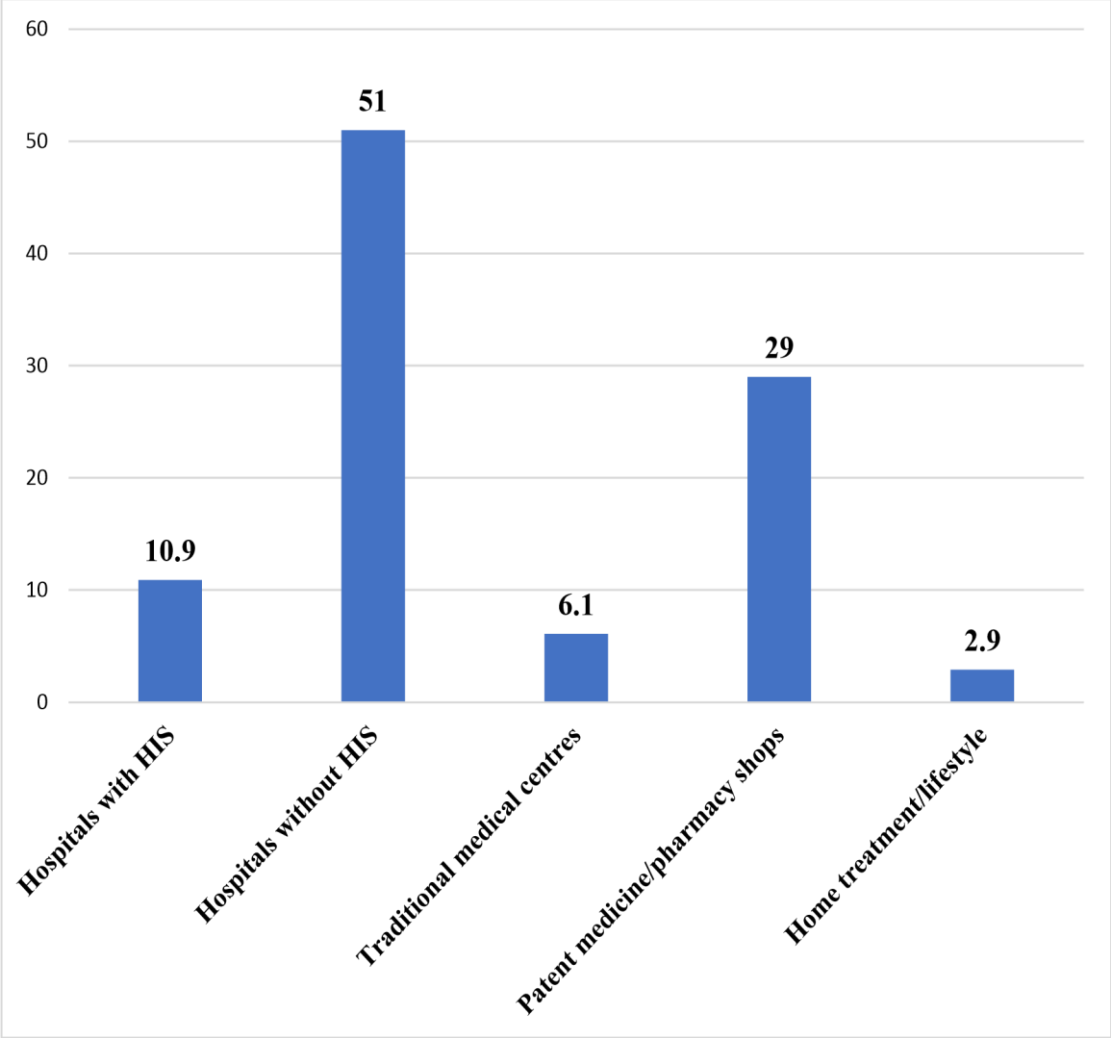

Fig. 4.11: Percentage Distribution of Respondents by Forms of Health Care Used Prior to their Organisation's Adoption of Health Insurance Scheme

Table 4.4 shows the chi-square distribution of respondents by health insurance scheme related influential variables by employee health-seeking behaviour. The findings show that there are significant associations between employee health seeking behaviour and the extent of benefit from HIS (p-value=0.000), satisfaction with HIS services available (p-value=0.000), area of care not satisfied with HIS (p-value=0.000), productivity before HIS adoption (p-value=0.008), productivity during HIS adoption (p-value=0.000), and general health status during HIS adoption (p-value=0.000). For example, the results show that the majority of respondents (76.1 %) who benefited 'a lot' from health insurance scheme adoption were those whose health seeking behaviour was influenced by the health insurance scheme adoption.

In terms of satisfaction with HIS services available, half of the respondents (50.1 %) who were satisfied with HIS services available were those whose health seeking behaviour was influenced by the adoption of a health insurance scheme. Nearly half of the respondents (42.2 %) who were dissatisfied with an aspect of care provided by HIS were those whose health seeking behaviour was influenced by the adoption of the health insurance scheme. More than half of the respondents (56.0 %) whose productivity was moderate prior to HIS adoption were those whose health seeking behaviour was later influenced by the health insurance scheme adoption. In terms of productivity during HIS adoption, the majority of respondents (72.8 %) whose productivity was high were those whose health seeking behaviour was influenced by the adoption of a health insurance scheme. The general health status of those influenced by the adoption of a health insurance scheme improved from 15.9 percent general health status to 55.9 percent general health status before and after the adoption of an HIS.

Table 4.4: Chi-Square Distribution of Respondents by Health Insurance Scheme Related Influential Variables, by Health-Seeking Behavour of Employees

Variables	Healthcare-seeking behaviour		X^2	Df	p-value
	Influenced by HIS adoption	Not influenced by HIS adoption			
Extent of benefit from HIS					
A lot	76.1	39.8	64.591	3	0.000***
A little	16.4	36.1			
Not at all	6.0	10.8			
Indifferent	1.5	13.3			
Satisfaction with HIS services available					
Not satisfied	14.6	34.9	66.417	4	0.000***
A little satisfied	15.9	37.3			
Undecided	6.2	13.3			
Satisfied	50.1	12.5			
Very satisfied	13.2	2.0			
Area of care not satisfied with HIS					
Waste of time	10.9	2.1	60.347	5	0.000***
Giving cheap and ineffective drugs	42.2	37.7			
Choice of accredited hospitals	10.3	25.3			
Uncovered treatment options	12.8	30.3			
Attention during emergency	22.5	2.2			
Other	1.3	2.4			
Productivity before adoption of HIS					
High	20.9	33.7	9.668	2	0.008**
Moderate	56.0	55.4			
Low	23.1	10.8			
Productivity during adoption of HIS					
High	72.8	43.4	25.057	1	0.000***
Moderate	27.2	56.6			
Low					
General health status before adoption of HIS					
High	15.9	18.1	2.661	2	0.264
Moderate	81.1	79.8			
Low	3.0	2.1			
General health status during adoption of HIS					
High	55.9	10.5	89.520	2	0.000***
Moderate	41.5	72.4			
Low	2.5	17.1			
Desire that government fully implement HIS and make it mandatory for every organisation in Nigeria					
Desire	84.4	77.8	2.077	1	0.186
Not desire	15.6	22.2			

Chi-square values are significant at p<0.05*, p<0.01** and p<0.001***;

n=457

Table 4.5 shows the results of a binary logistic regression based on selected socio-demographic variables to show the health-seeking behaviour of employees whose organisations have implemented a health insurance scheme. Result of the finding revealed that health seeking behaviour of respondents between the ages of 30-49 were 89 percent less likely to be influenced by the adoption of a health insurance scheme than those between the ages of 18 and 29. In contrast, health seeking behaviour of respondents aged 50 and older were 3.5 times more likely to be influenced by the adoption of a health insurance scheme than those aged 18 to 29 years. When compared to single respondents, health seeking behaviour of married respondents were 4.1 times more likely to be influenced by the adoption of a health insurance scheme.

Health seeking behaviour of respondents with 3-4 and 5 or more children were 2.5 and 3.4 times more likely to be influenced by the adoption of a health insurance scheme respectively, than those without a child. When compared to male respondents, health seeking behaviour of female respondents were 1.9 times more likely to be influenced by the adoption of a health insurance scheme. Respondents with tertiary education were 7.2 times more likely to be influenced by the adoption of a health insurance scheme than those with less than tertiary education. Senior employees were 1.6 times more likely than junior employees to be influenced by the adoption of a health insurance scheme. Health seeking behaviour of respondents with average monthly incomes of N31,000N50,999, N51,000-N99,999, and N100,000 and above were 2.8, 3.8, and 4.0 times more likely to be influenced by the adoption of a health insurance scheme than those with less than N31,000, respectively.

Table 4.5: Results of Binary Logistic Regression Showing Health-Seeking Behaviour of Employees Whose Organisations Have Adopted Health Insurance Scheme by Selected Socio-Demographic Variables

Variables	B	S.E.	p-value	Odds ratio	95% C.I.	
					Lower	Upper
Age (years)						
18-29 (Ref.)				1.000		
30-39	-2.204	0.928	0.018	0.110**	0.018	0.681
40-49	-1.433	0.808	0.076	0.239	0.049	1.162
50+	-2.997	0.889	0.001	3.501***	3.009	3.985
Marital status						
Single (Ref.)				1.000		
Married	1.412	0.850	0.001	4.104***	3.775	4.334
Separated/Divorced/Widowed	0.388	1.308	0.767	1.475	0.114	1.547
Number of children						
0 (Ref.)				1.000		
1-2	-1.006	0.819	0.366	0.366	0.074	1.820
3-4	-0.602	0.783	0.008	2.548**	2.118	2.844
5+	-0.864	0.867	0.001	3.422***	2.977	3.907
Sex						
Male (Ref.)				1.000		
Female	-0.044	0.366	0.014	1.957**	0.867	1.962
Education						
Below tertiary (Ref.)				1.000		
Tertiary	1.985	0.602	0.001	7.279***	6.938	7.678
Religion						
Christianity (Ref.)				1.000		
Islam	0.964	0.773	0.212	0.623	0.577	1.929
Traditional	0.543	1.042	0.602	0.722	0.224	1.261
Grade level						
Junior staff (Ref.)				1.000		
Senior staff	0.448	0.552	0.007	1.565**	0.530	1.619
Average monthly income						
Less than N31,000 (Ref)				1.000		
N31,000-N50,999	2.381	1.442	0.029	2.820*	2.641	3.103
N51,000-N99,999	1.559	1.413	0.006	3.755**	3.298	4.212
N100,000 and above	1.951	1.345	0.001	4.038***	3.504	4.642
Overall Model Evaluation						
Hosmer and Lemeshow test: 0.303						
Omnibus tests: 0.033*						
-2 Log Likelihood: 296.311						

*Note: Significance at *P<0.05; **P<0.01; ***P<0.001; Ref.=Reference category; C.I. = Class Interval; n=457; Dependent variable: Health-seeking behaiour of employees*

4.4 Treatment Pathways of Employees Utilising Health Insurance Scheme

This section presents research findings on the treatment pathways of employees who use a health insurance scheme. Figure 4.12 conveys the percentage distribution of respondents based on their usual first action taken when they are sick. According to the findings, more than half of the respondents (61.2 %) usually visit a health insurance hospital as soon as they discover they are sick. This was followed by 23.2 percent of respondents whose usual first action when suspected a disease was to use home treatment/self-care or lifestyle therapy. Only a small percentage of respondents, 0.2 percent and 2.9 percent, visit traditional medical and faith/religious centers first. This means that the common practice of first visiting faith/religious centers when an individual becomes ill, as was common in most Nigerian and other African states, is declining.

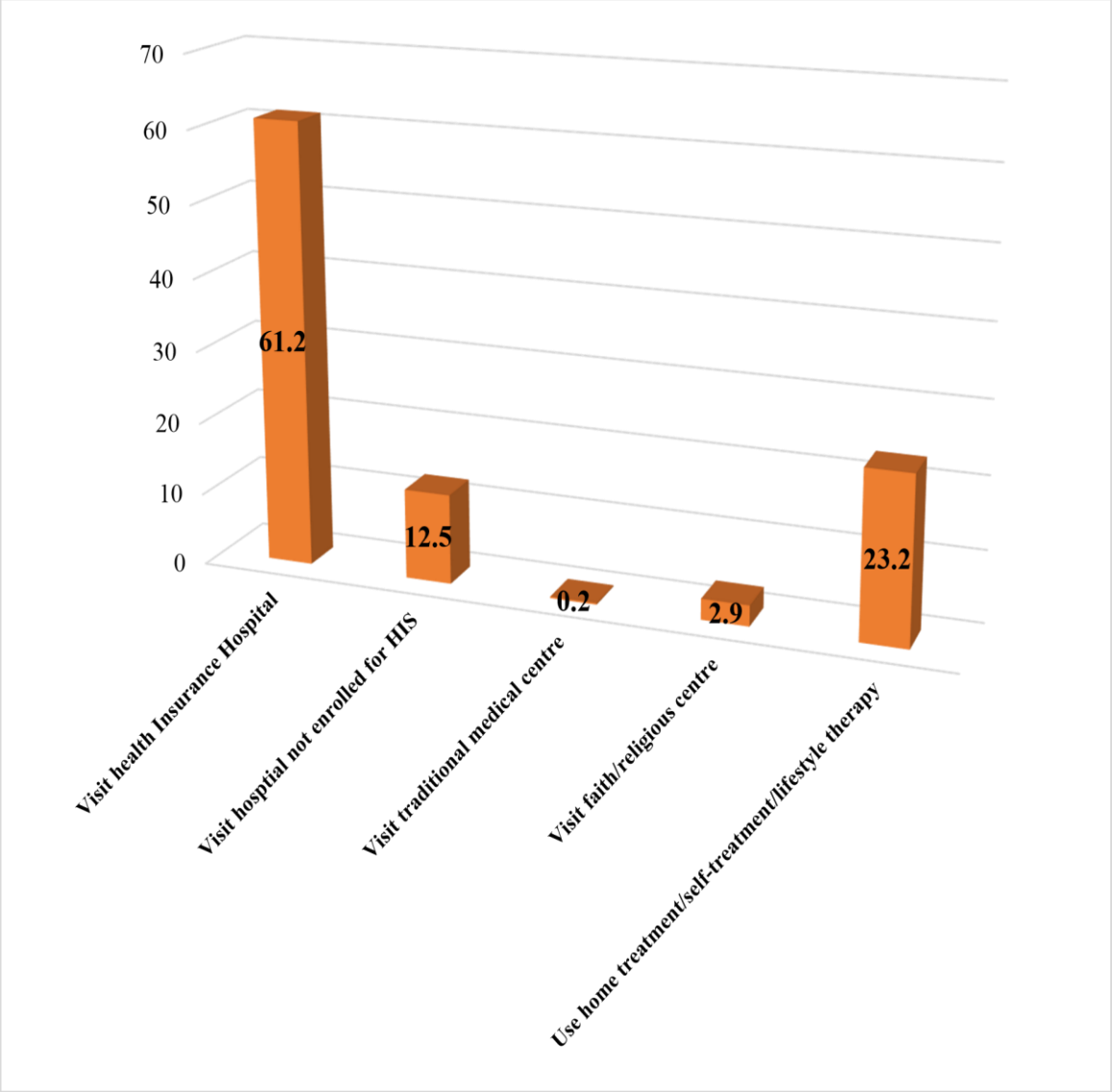

Fig. 4.12: Percentage Distribution of Respondents by Usual First Action Taken when Discovered that they are Sick

The quantitative findings are consistent with the qualitative research findings, indicating that a large number of employees whose employers have adopted HIS for staff sourced health care services from HIS accredited hospitals. For example, an in-depth interview with one of the employees in a private organisation about pathways to health seeking after a recent illness. According to the interview, some employees only seek health-care services from HIS-accredited hospitals. In the case of the interviewed employee who had malaria, she only went to an HIS-accredited hospital. In her statement, the employee was pleased with the services provided by HIS hospital. According to the interviewee, she received appropriate medication from the HIS hospital at no additional cost, which resulted in her improved health condition. As per the interview, the employee was used to self-medicate in the past, but since enrolled in the HIS program, she has stopped self-medicating and is now visiting the hospital on time for regular check-ups. In the interviewee's words:

> My most recent illness was malaria. I went to my accredited HIS hospital for a diagnosis to figure out what was wrong. The only action I took was to go to the hospital. I needed to see a doctor because my fever (which was mostly at night) was so severe. There was no delay. When the symptoms became obvious, I went to the hospital right away. The HIS accredited hospital was the first and last place of my treatment. The hospital provided me with proper medical care... We used to spend a lot of money on medical bills and drug purchases, but being enrolled in HIS has helped to reduce the cost. Initially, I often used self-medication to save money before going to the hospital for a check-up, but I no longer do so because of my HIS enrollment. (**IDI/Female/Employee/Senior Staff/Manufacturing Industry/8 years of service)**.

In an interview, another employee stated that HIS is very important for health care because it not only provides access to quality health care at a very affordable rate, but it also reduces huge expenses associated with the cost of health care for individuals and families. According to the interviewee, he only went to HIS hospital for health care during his last illness and did not go anywhere else until he recovered. The employee's response was as follows:

> The HIS programme is fantastic. I went to HIS hospital for the first time during my last illness, and it was my last place of visit until I was completely recovered. One may not realize the benefits of HIS programme until he or she is admitted to the hospital and is required to pay a large sum of money. The scheme provides access to high-quality health care at a low cost... (**IDI/Male/Employee/Junior Staff/Service Industry/5 years of service)**.

Some employee seek diagnoses and treatments at hospitals other than those accredited by HIS. Several reasons were revealed during the interview sessions, including the assumption that HIS hospital does not usually administer the most appropriate and effective drugs to enrollees. In an interview, an employee acknowledged awareness of the HIS program, enrollment, and its benefits to users, particularly in terms of reducing immediate expenses, but the employee used another hospital for treatment during his most recent illness out of fear of receiving ineffective drugs from the HIS hospital in which his organisation had enrolled him. This means that some employees prioritised effective health care over financial expense, and are willing to pay to get the best services rather than ineffective cheap or free health care services along the way to seeking health care. In the words of the interviewee:

> Yes, there is HIS awareness in my organisation... The administration of low-quality drugs is usually what discourages me from seeking immediate health care from HIS hospital/clinic. Sometimes I get health care from another hospital where I have to pay for better medication, as was the case with my most recent illness... The advantage of HIS is that medical attention is always available... Whether you have money or not, you will be treated... The challenge is selective treatment, which does not cover all illnesses... HIS is advantageous because it relieves enrollees of financial obligations. (**IDI/Male/Employee/Senior Staff/Manufacturing Industry/9 years of service)**.

Figure 4.13 shows the percentage distribution of respondents based on the number of healthcare visits made during their most recent illness. It is worth noting that the number of health care providers visited here refers to all types of health care providers, including modern, traditional, and faith-based health care providers. According to the findings, the majority of respondents (70.6 %) visited one health care provider during their most recent illness. This was followed by 22.8 percent who saw two health care providers during their most recent illness. This means that respondents were more likely to visit a single health care provider, most likely due to their enrollment in a health insurance scheme program. However, knowing where to go for treatment will help us solve this problem as we continue our investigation into first place of visit for treatment at last illness.

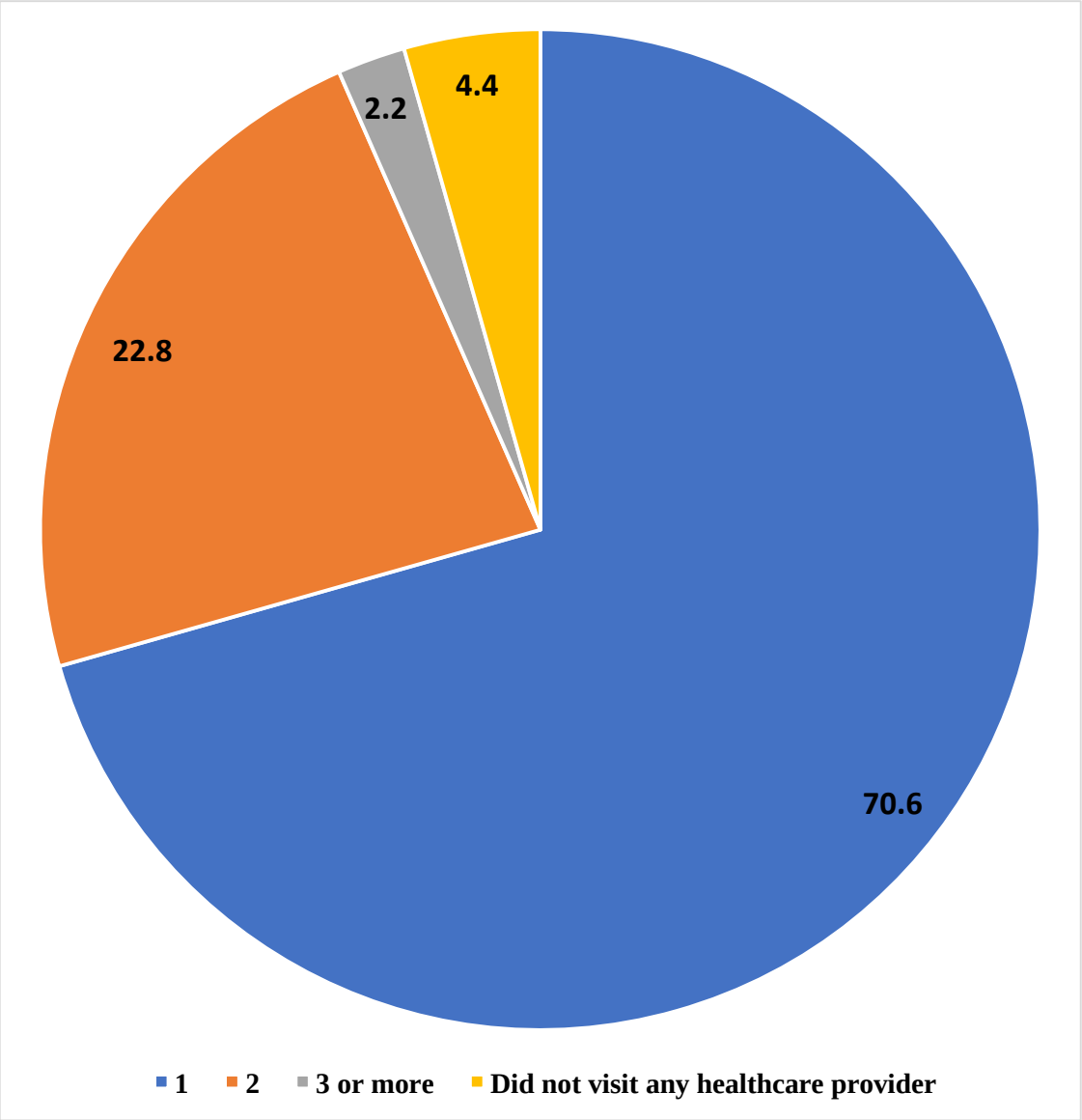

Fig. 4.13: Percentage Distribution of Respondents by Number of Healthcare Visited at Last Illness

Figure 4.14 presents the distribution of respondents by all places visited for health care or treatment during their most recent/last illness. According to the results, more than half of the respondents (69.5 %) visited hospitals/clinics where they were enrolled in a health insurance scheme during their most recent illness. This was followed by 20.8 percent of respondents who visited hospitals/clinics despite not being enrolled in a health insurance scheme during their most recent illness. A few (4.1 %) of those sampled went to a patent medicine store/pharmacy to get medications for their most recent illness. This implies that health insurance scheme adoption by organisations and employee enrollment in the scheme influence employees' places of visit when they become ill.

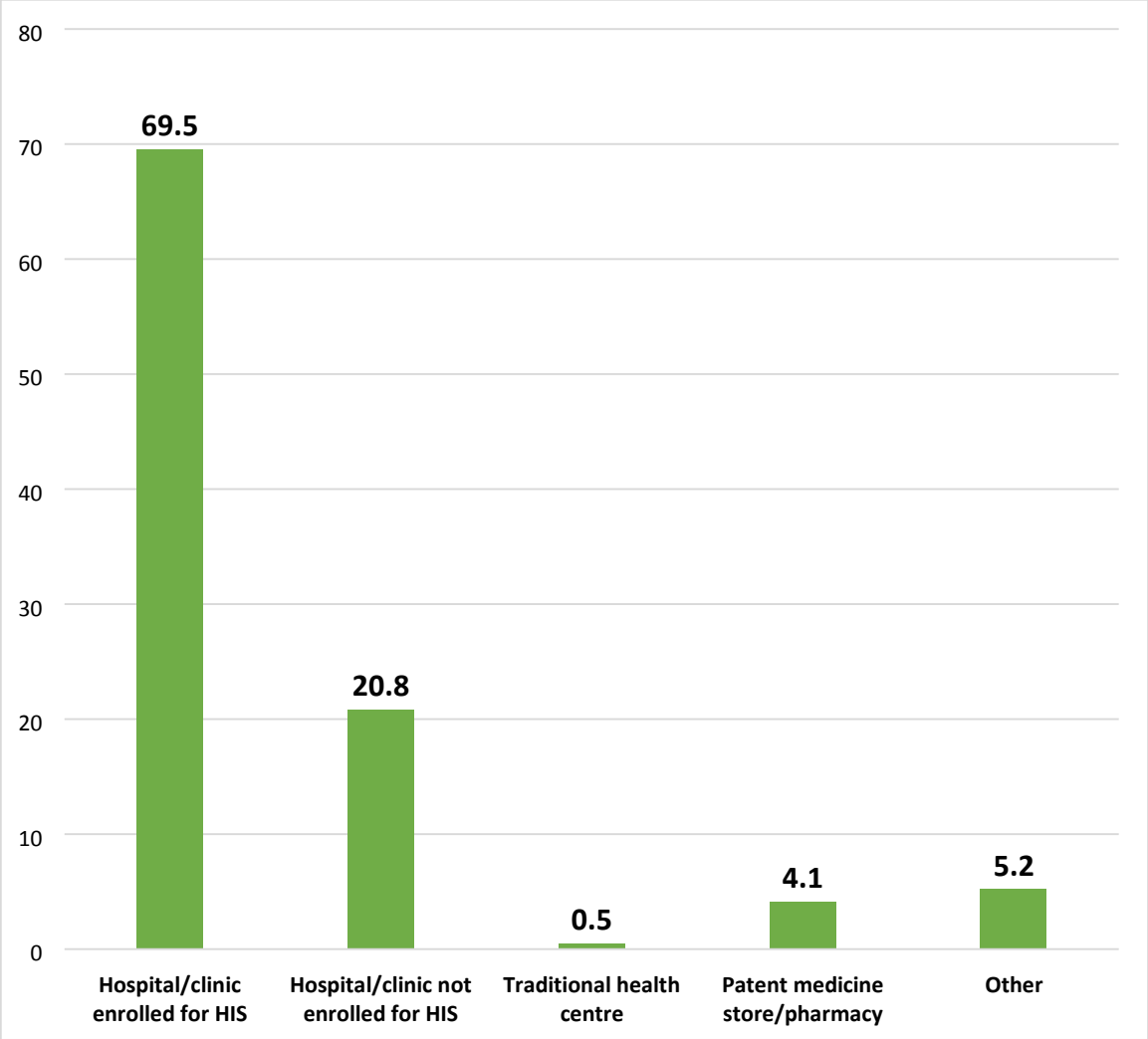

Fig. 4.14: Distribution of Respondents by all Places Visited for Health Care or Treatment at Last Illness (Note: Percentages Based on Multiple Responses)

The qualitative interview findings also revealed that some of the employees did not go to just one place for health care. Some went to both modern and traditional medical facilities. An employee interview revealed that when she discovered she was sick, she did not go to the hospital right away. According to the employee, she first went to a prayer house because she believed her illness was spiritual and required spiritual care. She was suffering from malaria and severe body aches. Malaria is a common tropical disease in Africa, and it is especially prevalent in Nigeria due to the prevalence of mosquitoes and inadequate preventive measures, which spread the infection from person to person.

When the illness persisted, the employee realized she needed medical attention, according to the interviewee. As a result, she left the prayer house and went to the hospital, where she was diagnosed with malaria. Despite the fact that she was diagnosed and treated for the diseases for free, the employee stated that she had taken two paths to health care. She cited proximity and crowding at the hospital facility as factors discouraging her from using HIS hospital as her first place or primary source of health care. In the interviewee's words:

> I went to the HIS the last time I was sick with malaria and severe body pains. At first, I did not go directly to HIS hospital. I first went to a prayer house because I thought my illness was spiritual in nature. I had to go to my HIS hospital when the symptoms persisted. The malaria disease was discovered in me. Free tests and medications were administered... Most of the time, I have difficulty going to HIS hospital due to crowd... Furthermore, the proximity to my workplace and the HIS hospital is unfavourable due to its distance from my home. This also prevented professionals from providing early medical treatment to my illnesses **(IDI/Female/Employee/Junior Staff/Manufacturing Industry/9 years of service).**

An interview with some employees revealed that self-medication and over-the-counter drugs were also popular among employees, as some of them would use self-medication first before visiting the hospital for a proper check-up if the self-medication did not work. An interview with one of the employees who was sick with typhoid revealed that she first went to a chemist store to buy paracetamol and other medications. However, after using the self-recommended drugs for several days with no improvement, the patient decided to go to the hospital for a proper check-up. The employee was sick with typhoid fever. Interaction with the employee revealed that she had become accustomed to self-medication as a result of the high cost of hospital-based medical treatment even

before enrolling in the HIS program. As disclosed in the interview, self-medication does not include laboratory testing to confirm a specific infection, so employees spend days treating infections or diseases based on assumptions, which is dangerous because they do not know the exact cause of their illness and what to treat. The employee said the following:

> I was sick with typhoid... Before going to HIS Hospital for proper treatment, I bought paracetamol and a few other medications from a chemist shop. I took the drugs for a few days and saw no improvement. Later, I went to the hospital. The fever and headache were particularly bad at night. I didn't realize it was typhoid until a laboratory test revealed it... I went to HIS hospital for treatment when over-the-counter medications and self-medication were ineffective. Before we were enrolled in HIS, I used to spend a lot of money in hospitals, which is why I am used to self-medication. **(IDI/Female/ Employee /Senior Staff/Service Industry/7 years of service).**

Figure 4.15 depicts the percentage distribution of respondents by first and subsequent places of health care visited in the order of such visits to show pathways at last illness. According to the findings, more than 30% of respondents visited more than one place for health care treatment during their most recent illness. About 54 percent of the 70.6 percent of respondents who visited only one place for health care during their most recent illness visited hospitals, while 16.1 percent visited pharmacies. In one case, 13.2 percent of respondents went from HIS hospital to traditional, faith/religious centers, pharmacy, and finally home/self-treatment. This occurs despite the fact that employee organisations have implemented a health insurance plan for their employees. This means that while enrolling employees in a health insurance scheme may improve hospital medical check-ups, it does not preclude all employees from accessing other forms of health care, such as traditional, faith-based, and self-treatment.

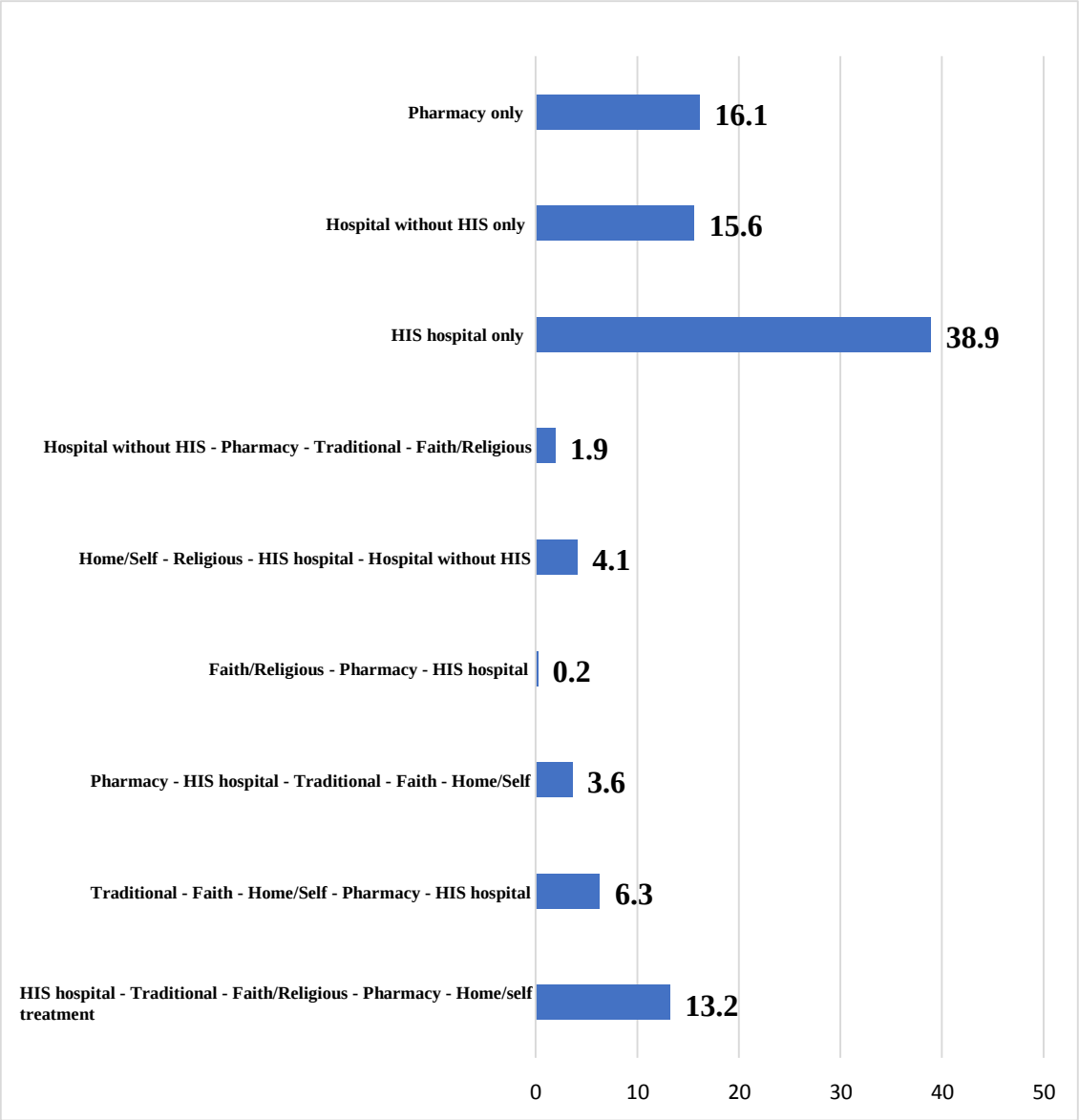

Fig. 4.15: Percentage Distribution of Respondents by First and Subsequent Places of Health Care Visited in Order of Such Visits at Last Illness

An in-depth interview with employees revealed that, despite being enrolled in HIS, some employees in the private sector usually take two or more paths to seek healthcare. One of the interviews with a service industry employee revealed that he had taken three paths to health seeking during his last illness. According to the interview, after realizing he was suffering from toothache, he went to a chemist shop to purchase pain relievers. Because the drugs did not work, he assumed that it was his high sugar consumption that was causing his tooth pain, so he went to a herbal medicine provider who gave him a mixture of herbs to reduce his high sugar level and pain. Because the herb did not work, the employee went to an HIS hospital for diagnosis and treatment. The employee's toothache was relieved by medicine from the HIS hospital. The interaction revealed that incorrect assumptions about the actual cause of a disease or health condition were a major factor in people not seeking health care directly from HIS hospital when they first became ill. According to the interviewee:

> I was sick with toothache during my last illness... I first went to a pharmacy to buy a medication recommended by a co-worker. The pains became unbearable after taking the chemist's drug. I had never had a toothache before that. In addition to chemist medication, I visited traditional medicine providers in my community for herbs that could reduce sugar levels in my teeth because I suspected that excess sugar consumption was causing the toothache. I had to go to HIS Hospital for proper treatment because the herb did not work... Prior to enrolling in HIS, we used to spend a lot of money on health care **(IDI/Male/Employee /Senior Staff/ Service Industry/ 4years of service).**

An interview with another employee who had taken two routes to seek health care revealed that the assumption that HIS hospitals would provide sub-standard drugs to HIS enrollees has discouraged employees from seeking health care from HIS hospitals. The interview session revealed that some employees believe they can get better drugs for their health care by buying them directly from a pharmacy or chemist shop. Employees suggest that HIS should broaden its scope of coverage, accredit more hospitals, administer effective drugs, and become less stressful in order to increase employee patronage. One of the employees who was sick with pneumonia during the previous illness revealed these using the words:

> My most recent illness was pneumonia. I started by going to a chemist. I assumed it was just a headache. Because of the severity of the illness, I was transferred from a chemist shop to HIS hospital. Even after taking medications from the chemist shop, my symptoms worsened, necessitating a visit to HIS hospital... Employees may be discouraged

> from seeking health care from HIS hospital if the care is of poor quality. HIS hospital is reasonably priced, but the stress discourages me. I propose that HIS broaden its scope of coverage, accredit more hospitals, administer effective medications, and become less stressful (**IDI/Female/ Employee /Junior Staff/ Manufacturing Industry/8 years of service)**.

Figure 4.16 demonstrates the percentage distribution of respondents by length of stay at first place of visit before seeking another source of care during their most recent illness. According to the results, more than half of the respondents (52.2 %) spent less than three days at the first place of visit before seeking another source of care during their most recent illness. This was followed by 31.6 percent who spent 3-7 days at the first place of visit before seeking another source of care during their last illness. This means that a large number of patients rarely have the patience to follow up on medications at a specific medical center before seeking alternative care for their previous illness. This also implies that some employees are unsure of receiving treatment from the health insurance hospital in which they are enrolled, resulting in a proclivity to seek alternatives, which they may combine or directly move into adopting in their search for remedies to their illness.

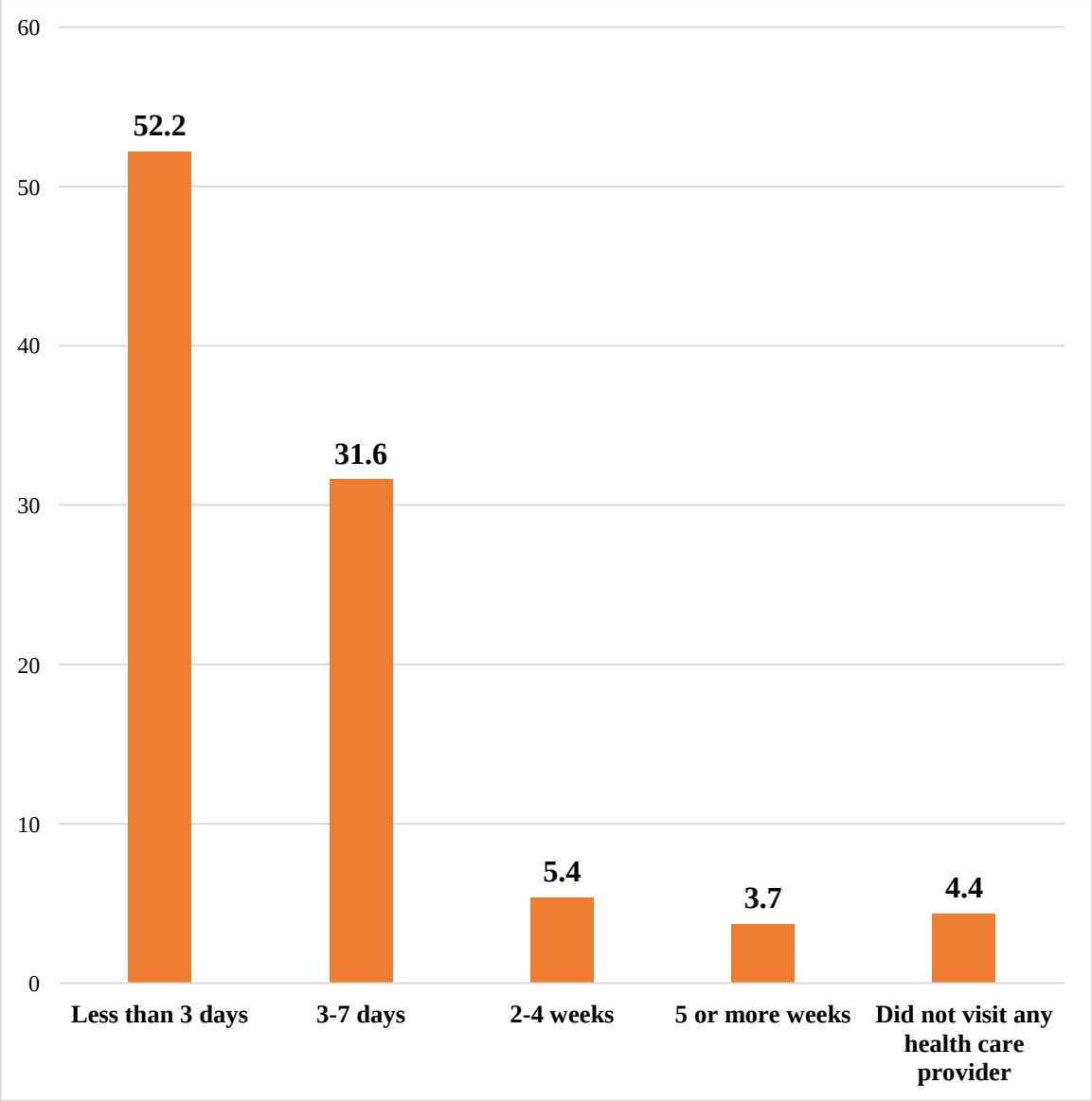

Fig. 4.16: Percentage Distribution of Respondents by Length of Stay at First Place of Visit Before Seeking Another Source of Care during their Most Recent Illness

Figure 4.17 shows the percentage distribution of respondents based on their reasons for selecting the first place of care for treatment of their most recent illness. According to the findings, the majority of respondents (37.0 %) chose their first place of care for treatment of their most recent illness because the bill was affordable. This was followed by 23.0 percent of those who chose their first place of care for treatment of their most recent illness due to quality assurance. Furthermore, 19.0 percent of respondents chose their first place of care for treatment of their most recent illness due to proximity. In other words, the three most important reasons for employees to choose a first place of care for treatment of their most recent illness were: affordability (37 %), quality assurance (23 %), and proximity (19%). This also implies that employees are rational beings who frequently conduct cost-benefit analyses before carrying out actions or making decisions. Employees are more likely to use a health care facility if the cost of accessing health care in that facility is low, they are confident of receiving quality service from the facility, and the facility is close to their place of residence.

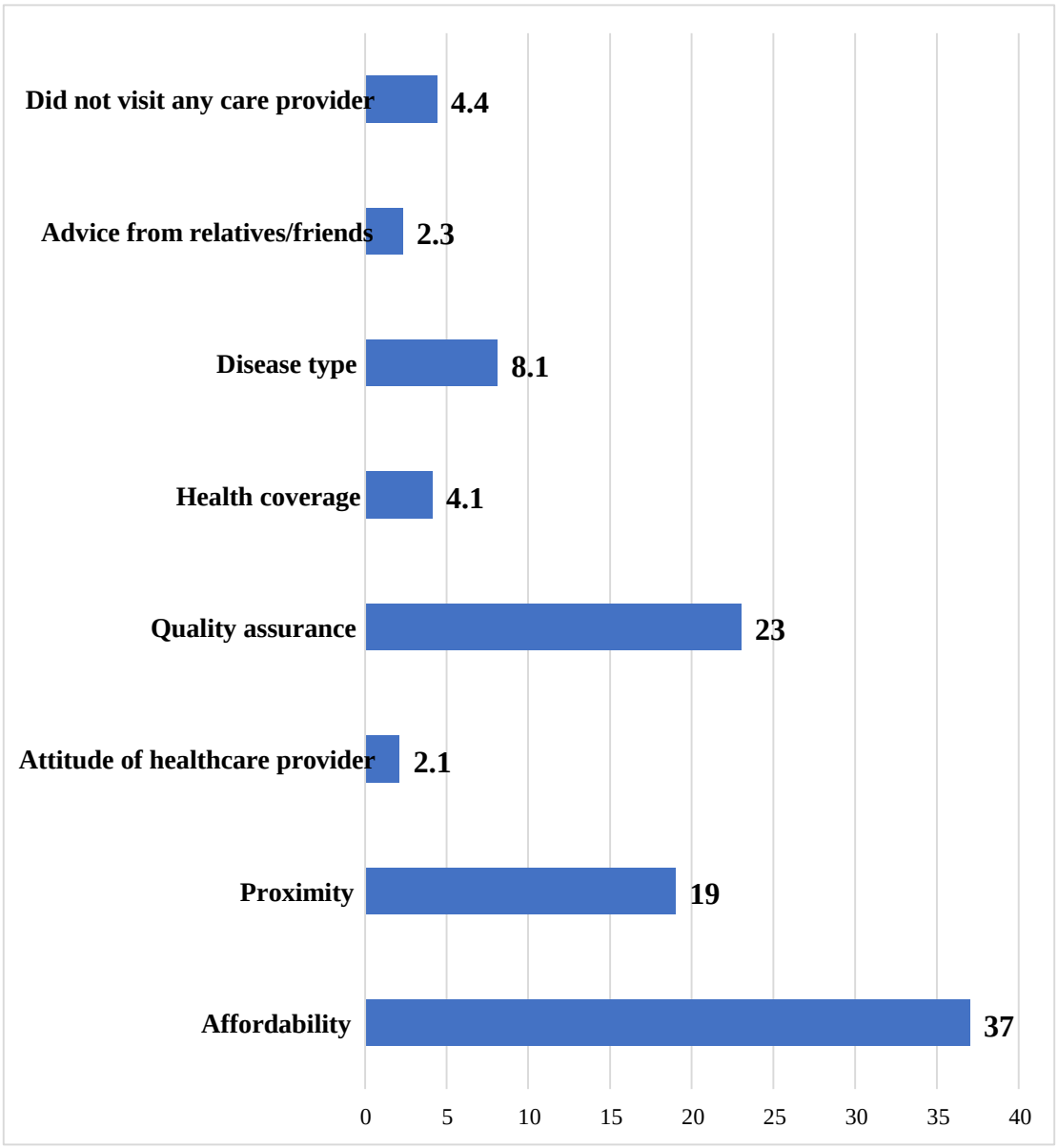

Fig. 4.17: Percentage Distribution of Respondents by Reasons for Choice of First Place of Care for Treatment of Last Illness

Key informant interviews with HMOs and HIS officials were also conducted in response to the reasons why some private employees enrolled in the HIS program chose other forms of health care system over HIS. Interactions with these officials revealed that they are aware that some employees may prefer other forms of health care over HIS, but they are optimistic that the HIS is doing its best to provide affordable, effective, and wide-reaching health care services to employees in both the public and private sectors, and that they are also making additional efforts to improve services to satisfy employees. The following words were used by one of the HMO's zonal managers: *Though some employees may object, I am confident that the HIS regulations are user-friendly. To ensure that all employees are satisfied, the premium, benefit coverage, and location are being improved.*

An interview with the Director of the Health Insurance Scheme revealed that most employees, particularly federal government employees, view the HIS program as an important avenue for accessing health care. The director also stated that efforts are being made to make HIS enrollment mandatory for all Nigerians, as well as for all private organisations to enroll employees. According to the director, just as with federal government employees, if all private organisations enroll their employees in the scheme, more employees will be forced to use it for health care. The following words were used by the director when awarding points:

> The scheme is used by the majority of employees. This is because workers in all federal parastatals are automatically enrolled in the scheme upon hire. Some private employers have also signed up their employees for the program. There are currently efforts underway to make participation in the scheme mandatory for all Nigerians... One factor that prevents people from enrolling in and using the scheme is a lack of fund (**HIS Director/Female/17 years of service)**.

Table 4.6 displays the chi-square distribution of employees enrolled in a health insurance scheme by treatment pathways at their most recent illness, as determined by selected variables. The results show that age (p-value=0.001), marital status (p-value=0.016), number of children (p-value=0.008), sex (p-value=0.001), education (p-value=0.003), religion (p-value=0.004), grade level (p-value=0.041), and average monthly income (pvalue=0.002) significantly influenced treatment pathways of health insurance scheme enrollees during their most recent illness. For example, the use of combined health seeking pathways was highest among respondents aged 50 and above

(49.5 %), while the use of the HIS pathway alone was highest among respondents aged 29 and below (40.2%). The use of the HIS pathway alone was most common among married respondents (37.2%).

As the number of children grows, so does the use of combined pathways. For example, respondents with 5 or more children (48.3 %) used combined pathways the most, while respondents with no child used the least (27.5%). Respondents with no children (43.3 %) used only the HIS pathway the most, while those with 5 or more children used it the least (23.2%). Females were the most likely to use combined pathways (57.0%). Respondents with tertiary education were the most likely to use the HIS pathway alone (55.2%). Traditional worshipers were the most likely to use combined pathways (35.4%), while Christian worshipers were the most likely to use HIS pathway alone (58.8%). Junior staff (42.6%) used combined pathways more than senior staff (31.0%), while the use of HIS pathway alone was higher among senior staff (38.0%). The use of combined pathways was highest among respondents with less than N31,000 average monthly income (50.0%), while the use of HIS pathway alone was highest among those with N51,000-N99,999 average monthly income (49.5%).

Table 4:6: Chi-square Distribution of Employees Enrolled for Health Insurance Scheme by Treatment Pathways at Last Illness by Selected Variables

Variables	Not used HIS pathway (Used other sources of health care)	Combined pathways (Used HIS + other sources of health care)	HIS pathway only (Used HIS health care only)	X^2	Df	p-value
Age (years)						
29 and below	31.7	28.1	40.2	33.526	6	0.001***
30-39	26.3	37.1	36.6			
40-49	31.8	40.3	27.9			
50+	27.6	49.5	22.9			
Marital status						
Single	26.4	40.5	33.1	23.645	4	0.016**
Married	19.4	43.4	37.2			
Other	18.2	54.5	27.3			
Number of children						
0	29.2	27.5	43.3	32.764	6	0.008**
1-2	22.7	32.1	45.3			
3-4	25.0	36.8	38.2			
5+	18.2	48.3	23.2			
Sex						
Male	28.1	24.6	47.3	41.319	2	0.001***
Female	21.0	57.0	22.1			
Education						
Below Tertiary	52.4	21.5	26.1	21.207	2	0.003**
Tertiary	17.8	27.0	55.2			
Religion						
Christianity	11.8	29.4	58.8	15.336	4	0.004**
Islam	54.3	25.7	20.0			
Traditional	28.1	35.4	36.6			
Grade level						
Junior staff	29.0	42.6	28.4	6.396	2	0.041*
Senior staff	31.0	31.0	38.0			
Average monthly income						
Less than N31,000	25.9	50.0	24.1	20.722	6	0.002**
N31,000-N50,999	23.9	28.4	47.8			
N51,000-N99,999	22.2	28.3	49.5			
N100,000 and above	33.8	30.3	35.8			

Chi-square values are significant at p<0.05*, p<0.01** and p<0.001***; n=457

Table 4.7 shows the results of a multinomial logistic regression for employees enrolled in a health insurance scheme by treatment pathways at the time of the most recent illness, as well as selected socio-demographic variables. For clarity, the analysis was conducted and presented separately for 'Used combined pathways vs. Not used HIS pathway' and 'Used HIS pathway only vs. Not used HIS pathway'.

Used combined treatment pathways

According to Table 7.3, there is a significant relationship between age and combined treatment pathways at last illness among respondents enrolled in a health insurance scheme, with respondents aged 30-39 and 50 and above being 4.5 and 5.0 times more likely to use combined treatment pathways, respectively, than those aged 29 and below. Married respondents were 2.5 times more likely than single respondents to use combined treatment pathways. Respondents with 1-2, 3-4, and 5 and more children were 3.9, 5.4, and 6.2 times more likely to use combined treatment pathways, respectively, than those without a child. Senior staff were 33% less likely than junior staff to use combined treatment pathways. Respondents with average monthly incomes of N31,000-N50,999 and N100,000 and above were 43 percent and 62 percent less likely to use combined treatment pathways, respectively, than respondents with less than N31,000 average monthly income.

Used HIS treatment pathway only

According to the results in Table 4.7, there is a significant relationship between age and use of HIS treatment pathway only at last illness amongst respondents enrolled in health insurance scheme, with respondents aged 40-49 and 50 and above being 31% and 66% less likely to use HIS treatment pathway alone compared to those aged 29 and below. When compared to single respondents, married respondents were 44% less likely to use the HIS treatment pathway alone. Respondents with 3-4 and 5 or more children were 33% and 62% less likely, respectively, to use the HIS treatment pathway alone than respondents without a child. Respondents with tertiary education were 2.0 times more likely than respondents without tertiary education to use the HIS treatment pathway alone. Senior staffs were 2.5 times more likely than junior staffs to use the HIS treatment pathway alone. Respondents with an average monthly income of N100,000 or higher were 2.8 times more likely to use the HIS treatment pathway alone than respondents with an average monthly income of less than N31,000.

Table 4.7: Results of Multinomial Logistic Regression for Employees Enrolled in a Health Insurance Scheme by Treatment Pathways at Last Illness by Selected Variables

Variables	Used combined pathways vs. Not used HIS pathway		Used HIS pathway only vs. Not used HIS pathway	
	Odds ratio	95% C.I.	Odds ratio	95% C.I.
Age (years)				
29 and below (Ref.)	1.000		1.000	
30-39	4.431**	4.026-5.132	1.521	0.337-1.867
40-49	2.264	1.468-2.468	0.686**	0.135-2.484
50+	5.090*	5.010-6.745	0.338***	0.148-2.762
Marital status				
Single (Ref.)	1.000		1.000	
Married	2.499***	2.026-3.044	0.557***	0.133-2.325
Other	0.342	0.031-3.821	0.315	0.026-1.793
Number of children				
0 (Ref.)	1.000		1.000	
1-2	3.922**	3.385-4.316	2.712	0.702-3.475
3-4	5.441***	4.911-5.844	0.667**	0.425-2.558
5+	6.175*	5.497-6.533	0.376*	0.265-2.084
Sex				
Male (Ref.)	1.000		1.000	
Female	2.053**	2.070-3.340	1.541	0.819-2.898
Education				
Below Tertiary (Ref.)	1.000		1.000	
Tertiary	0.942	0.432-2.058	2.008**	0.460-2.209
Religion				
Christianity (Ref.)	1.000		1.000	
Islam	0.092	0.026-0.326	0.162***	0.015-0.253
Traditional	3.243	3.327-5.166	1.257	1.109-2.817
Grade level				
Junior staff (Ref.)	1.000		1.000	
Senior staff	0.672***	0.066-1.444	2.519**	1.995-3.078
Average monthly income				
Less than N31,000 (Ref.)	1.000		1.000	
N31,000-N50,999	0.568*	0.041-0.677	0.723	0.183-2.465
N51,000-N99,999	0.376	0.393-2.818	0.572	0.146-2.234
N100,000 and above	0.384***	0.181-1.325	2.826**	1.133-3.089

Model summary: -2 Log Likelihood = 315.355; model chi-square = 181.373; Nagelkerke=0.220; n=457; p-value <0.001

*Note: Significance at *P<0.05; **P<0.01; ***P<0.001; Ref.=Reference category; C.I. = Class Interval; Dependent variable: Treatment pathways*

4.5 Gender Differentials in the Adoption of Health Insurance Scheme Among Employees in Selected Private Organisations

This section present findings on gender differences in health insurance scheme adoption among employees in selected private organisations. Table 4.8 displays the chi-square distribution of respondents' health insurance scheme adoption by male and female gender in selected variables. The results show that males (62.9 %) have a higher intention than females (53.7 %) to enroll oneself and family in HIS if the organisation refuses to adopt HIS in the future. Females are more likely than males to seek medical attention after enrolling in a health insurance plan (52.6%). Females (54.9%) have a more positive perception of organisations adopting health insurance schemes than males (45.4%). However, males (83.4 %) prefer health insurance schemes to paying for medical treatment when they are sick over females (70.8%). Females (60.6 %) have a better general health status than males after their organisation adopted a health insurance scheme (47.1%).

Table 4:8: Chi-Square Distribution of Respondents' Health Insurance Scheme Adoption by Male and Female Gender, and Selected Variables

Variables	Gender		X^2	Df	p-value
	Male	Female			
Intention to enroll oneself and family in HIS if the organisation does not adopt HIS in the future.					
Have intention	62.9	53.7	13.639	1	0.035*
Not have intention	37.1	46.3			
Health condition in which employees seek medical attention after enrolling in a health insurance scheme					
Severe health condition	36.3	16.9	14.704	2	0.014**
Moderate health condition	52.6	60.0			
Mild health condition	11.1	23.1			
Employee perceptions of the adoption of a health insurance scheme by the employer (organisation)					
Excellent	17.7	27.7	15.243	4	0.023*
Good	45.4	54.9			
Fair	20.4	10.9			
Poor	1.9	2.2			
No opinion	4.6	4.3			
Prefer a health insurance scheme to paying for medical treatment when sick					
Prefer HIS	83.4	70.8	12.915	1	0.047*
Prefer out of pocket payment	16.6	29.2			
Employee general health status prior to the organisation's adoption of a health insurance scheme					
High	16.5	16.5	0.329	2	0.848
Moderate	81.5	80.8			
Low	1.9	2.7			
Employee general health status after the organisation adopted a health insurance scheme					
High	47.1	60.6	15.388	2	0.028*
Moderate	51.0	33.9			
Low	1.9	5.6			
Want the government to fully implement the health insurance scheme policy and make it mandatory for all organisations in Nigeria					
Want	82.4	85.1	0.563	1	0.453
Not want	17.6	14.9			

Chi-square values are significant at $p<0.05$*, $p<0.01$** and $p<0.001$***; n=457

Figure 4.18 shows the percentage distribution of employee respondents who utilise a health insurance plan by male and female gender. The findings show that the majority of males (90.2%) and females (87.3%) had used health insurance scheme hospitals, with males utilising more than females by 2.9 percent. This means that nearly all male and female respondents used health insurance during their current employment years.

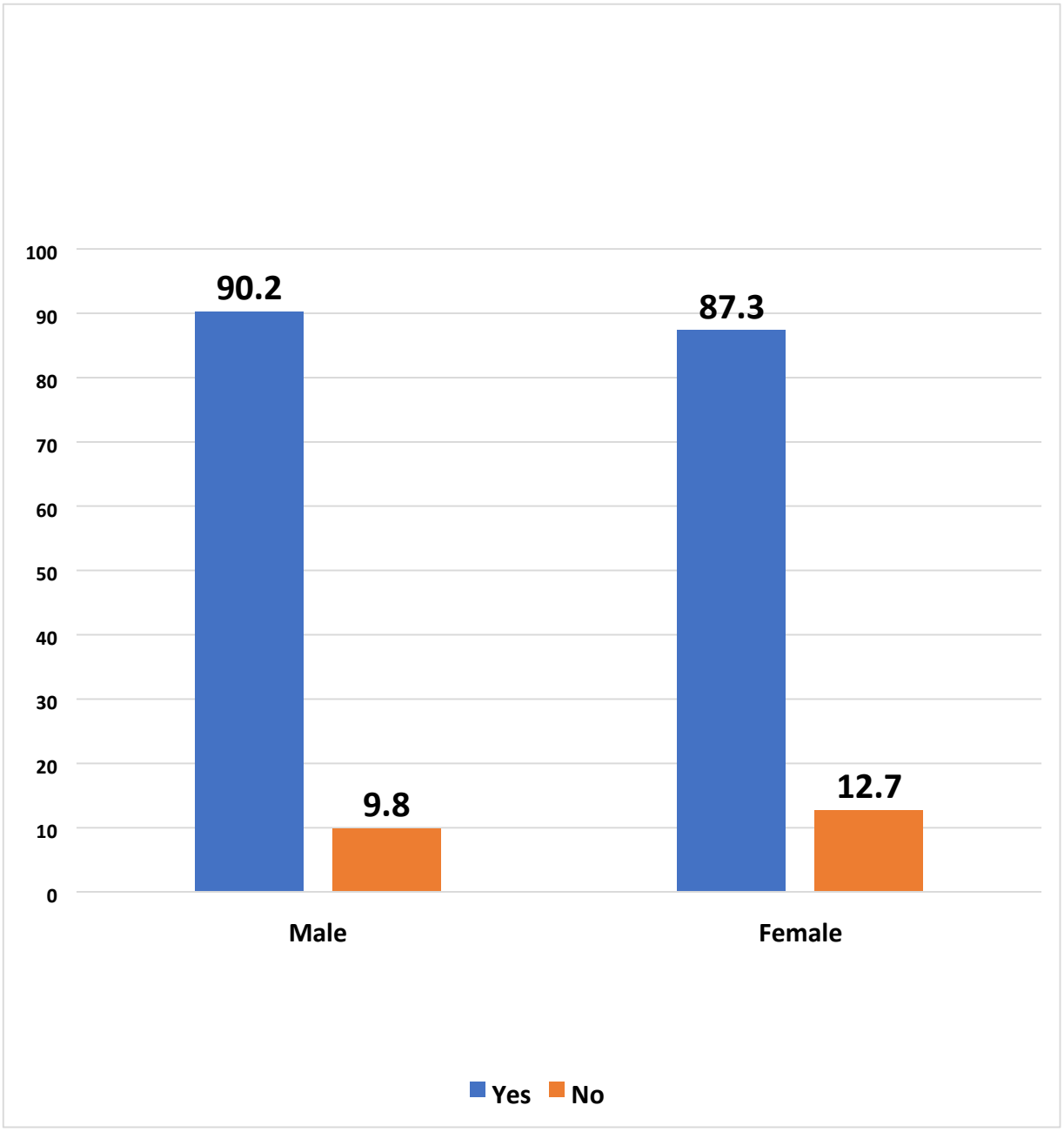

Fig. 4.18: Percentage Distribution of Respondents by Likelihood of Utilising Health Insurance Scheme by Gender

The findings of qualitative interviews agree with the quantitative findings in that there is no clear cut on gender inequality in the enrollment of private sector employees on HIS. Interviews with employees, HMO staff, and health care providers yielded similar results, with all stating that there are no gender biased policies in the HIS program. According to an interview with business managers in the manufacturing industry, there are no policies on gender differentials in the adoption of HIS in private organisations, and no special attention is given to staff members based on their gender. The interview session revealed that the only difference in enrolment among employees are for a few management staff members, who could be males or females, who have a higher health care plan than the general staff. In the interviewee's words:

> In my organisation, there are no policies on gender differentials in the adoption of HIS, and no special attention is given to staff members based on their gender. Rather, only a few management staff (males or females) have a better health care plan than the entire staff **(KII/Male/Business Manager/ Manufacturing Industry/9 years of service).**

An interview with employees in one of the service industries yielded similar results, indicating that there is no gender discrimination in the enrollment or utilisation of HIS services by employees or organisations. According to the interviewees, there is no discrimination based on family members of employees who are enrolled in the scheme. As per their statements, private organsations do not discriminate based on the gender of children who enroll in the scheme. The following phrases were used by interviewees: *The scheme is open to both men and women and their families, with no discrimination or bias*; *gender disparities in HIS adoption or enrollment are not feasible in my organisation. Employees of both genders have equal opportunities* (IDI/Female/Employee/Senior Staff/Service Industry/8 years of service).

An in-depth interview also revealed that the proportion of male and female employees utilising HIS for their health care may differ. However, the interview revealed that no policy supporting gender discrimination exists in the organisations studied, which could encourage one gender or discourage another for any reason. According to one of the interviewees: *I'm not aware of any gender differences in the use of HIS services for health care. All I know is that everyone, both men and women, uses the health insurance system when they are ill. There is no gender discrimination*
(IDI/Male/Employee/Junior Staff/Manufacturing Industry/6 years of service).

An interview with one of the HMO Regional Managers revealed a similar finding to that of employees in private organisations, namely that there is no existing discrimination between male and female employees when it comes to the utilisation of HIS. Interaction with the Regional Manager revealed that there is no gender bias policy in the operation of HIS or in the delivery of services. The interview revealed that all issues pertaining to the operation of the HIS are governed by established rules and regulations that do not favour one gender over the other. In the words of the interviewee:

> In my organisation, there is no such thing as a gender policy bias because all employees are treated equally regardless of gender. Issues involving any employee are handled in accordance with organisational policies and the HIS guideline, which, of course, excludes gender discrimination (**KII/Female/Regional Manager/HMO/ 10 years of service/Over 4,000 enrollees**).

Table 4.9 presents an independent t-test summary table showing the differences between male and female employee gender on the utilisation of health insurance scheme to advance the statistical analysis in order to determine if there will be any differences in the utilisation of HIS by male and female gender. In the study, the results show that there is a significant difference in the utilisation of health insurance schemes between the male and female genders. Female employees utilised the health insurance scheme significantly more than male employees (df = 431, t=6.382, P0.05). Male employees received a mean score of (22.64), while female employees received a mean score of (24.72).

Table 4.9: Independent T-test Summary Table Showing Differences between Male and Female Employee Gender on Health Insurance Scheme Utilisation

Variable	Gender	N	Mean	Std. Dev	T	Df	Sig	P
Gender	Male	256	22.64	0.609	6.382	431	.007	<0.05
	Female	117	24.72	0.541				

Significant at p<0.05

Interviews with HMO officials and health care providers provided explanations for the quantitative findings on the mean differences in male and female employees' use of HIS for health care. Key informant responses revealed that the scheme is utilised by a large number of men and women. Women and children, on the other hand, may use HIS services more than men because women use HIS services during pregnancy, delivery, and post-delivery. Their new-borns and under-five children, who were usually accompanied by their mother, benefited from HIS as well. The interviews also revealed that mothers and children may be given priority over men during hospital visits, most likely due to their vulnerability. One of the interviewees made the following statements:

> Despite the fact that both men and women use the scheme, women and children utilise HIS services more than men... Women use during pregnancy, delivery, and after delivery. Their new-born babies and children, who were usually accompanied by their mother, benefited from HIS also... Gender discrimination, on the other hand, is not an issue because no one is prevented from using the scheme and both genders are given equal rights... Mothers and children may be given higher priority than men, owing to their vulnerability (**KII/Male/Zonal Manager/HMO/11 years in service)**.

An interview with one of the health care providers revealed that childbearing could be a good reason for women to use the scheme more than men for their health care as part of the justification for women utilising the scheme more than men. However, it was stated that everyone, including the government, health care providers, HMOs, and individuals, should be involved in designing a workable framework that encourages high utilisation of medical experts' health care in order to achieve a healthy environment and low mortality rates. In her expressions, one of the health care providers stated:

> Females utilises HIS more frequently than males may be due to childbirth. There is no policy that I am aware of, that supports gender inequality in HIS utilisation. However, I believe that the general public should be encouraged to enroll in the HIS program. To design a strong plan that will build a healthy environment and reduce high mortality, the government, health professionals, HMOs, and individuals should work together (**Health Care Providers/ Female/11 years in the profession).**

4.6 Challenges and Experiences of Employers in the Adoption of Health insurance Scheme in the Selected Private Organisations

In the same way that employees have experiences and challenges that run through influencing factors and pathways to health seeking behaviours, employers have experiences and challenges in providing HIS to employees for effective health care. The emphasis in this section is on examining the employers' challenges and experiences. Interactions with some of the employers and management revealed that, in their experience, enrolling employees in the HIS program increases productivity because employees are motivated when they know that they and their dependents are enrolled to receive free or low-cost health care services through the health insurance scheme.

Employers' experiences and challenges include payment of premiums, unfair treatment of staff in some HIS hospitals, abuse of the scheme by some employees, sudden stoppage of treatment by HMOs or health care providers, complex bureaucratic structure of the system, and omission of some staff names or family members names from the approved list sent to health care providers by HMOs for health care. Other challenges and experiences include the sudden exclusion of some illnesses from the scheme, employers' inability to pay their capitation on time, employees' inability to access certain hospitals due to their chosen plan, and some employees' loss of HMO cards, among others.

Each experience and challenge is described in detail below. One interviewee, for example, revealed that premium payment is a challenge for employers. According to the interview, it is typically difficult for the organisation to raise large sum of money to pay for their employees' health care services. As per the interviewee, sometimes money is not available and the organisation has to struggle with decisions to take funds meant for other issues to sort employees' health care charges to cover up so that employees' health care services at HIS hospitals do not negatively affect their productivity. In the words of the interviewee:

> The problem is paying the premium. It is usually difficult for the organisation to come up with a large sum of money to pay for the employees' health care services. Sometimes the funds are not available, and the organisation must make difficult decisions to make payments from other sources in order to avoid the negative consequences of employees not receiving health care from HIS hospitals of their choice

(KII/Male/Operations Manager/Service Industry/10 years in service).

Another issue that employers face is that some employees take advantage of the scheme. According to an interview with one of the employers at one of the organisations studied, some employees abuse the scheme. According to the interviewees, some employees will go to their accredited HIS hospital even if they are not sick so that their organisation can spend money on their behalf. Some employees bring other people who are not registered as family members deserving of care with them to receive medication at the expense of the organisations that pay the premium. As disclosed by the interviewees, some employees will pretend to be sick in order to obtain medication for a distant relative who is ill but not enrolled in the HIS program. In the interviewee's words:

> The problem is that some employees take advantage of the scheme in an unusual way. They go to the hospital even if they are not ill so that their organisation can spend money on their behalf. Some employees will pretend to be ill in order to obtain medication for a distant relative who is ill but not enrolled in the HIS program. Some employees bring other people who are not registered as family members deserving of medication with them. (**KII/Female/Operations Manager/Service Industry/8 years of service).**

An interview with one of the regional managers revealed that some employers frequently faced the challenge of abruptly discontinuing treatment without regard for the organisation's efforts or personality. According to the interviewees, HMOs usually do not consider organisations when they are unable to subscribe or pay their premium on time. Rather, HMOs frequently prevent employers and employees from obtaining health care when their organisation has not paid premium. In the words of the interviewee:

> The challenge is an abrupt cessation of treatment without consideration. HMOs typically do not consider organisations that are unable to subscribe or pay premiums within the specified time frame. Rather, they immediately prevent them from receiving care (**KII/Female/Regional Manager/Service Industry/14 years of service).**

Employers also identified the issue of unhelpful government as a challenge. According to one of the employers, the government at the federal, state, and local levels is not helpful because the government has not played critical roles in enabling employers to pay employees' premiums in order to support citizen's enrolment in HIS services. Although, as one of the employers asserted, private organisations are non-governmental

bodies, the government can still assist in reducing the amount they are expected to pay because private organisations contribute quotas to reducing unemployment in the country. The interviewee used the following words:

> We face the challenge of an unsupportive government. The government is ineffective. Despite the fact that we are private organisations, the government can still help us reduce the amount we are expected to pay because we have contributed our quota to reducing unemployment (**KII/Female /Business Manager/Manufacturing Industry/12 years in service).**

According to what was revealed as part of experience during the interviews, the general experience of employers is that HIS is a type of motivation and welfare for the workers. Enrolling employees in HIS, according to employers, help in reducing fraudulent medical claims by some workers. It also prevents employees from using a lack of fund for medical care as an excuse for poor performance at work. During the interviews, one of the interviewees recorded the following points:

> Employers' general perception is that HIS serves as a form of employee motivation and welfare... HIS aids in the reduction of fraudulent medical claims by some employees... No employee will use a lack of fund for medical care as an excuse for poor work performance **(KII/Male/Operations Manager/Service Industry/9 years of service).**

As part of the experience sharing, some employers are sceptical of directly attributing employee productivity to HIS adoption because other factors may be influencing the process. However, during the interview session, it was revealed that one of the challenges that employers faced was the frequent complaint from employees that the HIS program does not cover some of the illnesses that the employees' enrolment plan should cover. According to the employers, covering more plans for employees means more expenses for the employers, as new budgets must be designed at the employers' expense. Similarly, the interview discussions revealed that employers have had fruitful relationships with HMOs for many years, depending on the personality of the HMOs. In the words of one of the interviewees:

> Based on my experience, I would not say that HIS adoption increased, decreased, or improved productivity because I am not adequately monitoring it... Some illnesses are not covered, but covering all illnesses or paying for a larger plan that covers all illnesses will increase our budget for medical care... When compared to out-of-pocket

> expenses, HIS is superior. Employees do not need to worry about money before going to the hospital once the initial payment is made. Our relationship with our HMO is generally positive, though this varies depending on the individuals involved. (**KII/Male/Operations Manager/Service Industry/7 years of service).**

Interaction with one of the regional managers during a key informant interview revealed that the regulations guiding the HIS that could influence challenges to employers and employees include a limited benefit package, inaccessibility of some hospitals due to the chosen plan, limitations due to length of stay in the hospital, and limitations to certain drugs and tests. The HIS packages are somewhat fixed and not as flexible in terms of package selection, as some employers and employees may prefer to select favorites without being willing to pay more. On that note, the challenge becomes that employers must select from the available HIS enrolment plans for their employees. In the interviewee's words:

> Based on past experience, the regulations governing the HIS that may pose challenges to employers and employees include: a limited benefit package, inaccessibility to some hospitals due to the chosen plan, limitations due to the length of stay in the hospital, and restrictions on certain drugs and tests. The challenge is that employers must select HIS enrollment plans for their employees based on the plans that are available. (**KII/Female/Regional Manager/HMO/ 10 years in service/Over 4,000 enrollees**).

An interview with another regional manager revealed some of the challenges employers face when adopting and enrolling employees in the HIS program. According to the interview, the loss of an HMO card by employees or the employer itself could be a challenge in the scheme, affecting employers directly or indirectly because it may necessitate the attention and time of the employer. Another issue that employers and employees may face, as revealed during the interview, is when hospitals refuse to treat employees due to unresolved issues with HMOs, employees may contact employers without knowing if the employers have money set aside or are experiencing difficulties in settling the HMOs. This is an excerpt from the interviewee statements:

> Employee or employer loss of HMO card could be a challenge in the scheme, affecting employers directly or indirectly because it may necessitate employers' attention and time... Another issue that employers and employees may face is when hospitals refuse to treat employees due to unresolved issues with HMOs. Another challenge is that if employees are not well cared for in hospitals, employers may be disturbed by employee complaints. When their names or the names of

> their dependents do not appear on the HMO list, they may have a negative experience (**KII/Female/Regional Manager/HMO/13 years in service/Over 6,000 enrollees**).

The preceding further revealed that another challenge faced by employers is that if employees are not well cared for in hospitals, employers may be disturbed by employee complaints. Another issue that employers face is that negative experiences can occur when employees' or dependents' names do not appear on the HMO list. Employers' attention may be drawn to this point as well.

4.7 Discussion of Findings

More than half of the study's participants were between the ages of 30 and 49. The 3039 age group was the most common among respondents, accounting for 39.2 percent of all respondents. The vast majority of employees (70.8%) were married. Over 70% of those polled had at least one child, with 34.7 percent having 1-2 children and 32.1 percent having 3-4 children. With over 77.4 percent having a tertiary education, the majority of respondents were educated. The vast majority of respondents (88.4%) recognised themselves as Christians. Given that the study was conducted in South Eastern Nigeria, where the majority of the population are Christians, this was to be expected. Previous research has found that the majority of people in South-Eastern Nigeria are Christians (NPC and ICF, 2019).

On the extent to which health insurance scheme is utilised by employees, the study found that nearly half of the respondents (46%) partially utilised health insurance scheme. Thirty-two percent of the respondents adequately utilised health insurance, while 22 percent did not utilise health insurance scheme at all, despite their organisations' adoption of the health insurance scheme for employees. This implies that organisations' adoption of the health insurance scheme is important, however ensuring that staff utilise this benefit appears to be more important, as there may be some factors hindering employees from using the scheme as expected. A similar finding was discovered in a study conducted by Merga, Balis, Bekele, and Fekadu (2022) among a nationally representative sample in Ethiopia where less than 28.1% of the respondents utilised HIS because of the variations in socioeconomic and demographic factors among participants. In particular, the study conducted in Ethiopia by Merga *et al* (2022) discovered that

having children under the age of five, the gender and age of household heads, family size, wealth index, and place of residence all influence HIS utilisation.

The current study quantitative finding was consistent with the qualitative finding, which revealed that approximately over 70% of employees in the private sector who have adopted health insurance schemes utilised the scheme to address health needs. According to the interviews conducted, the HIS policy is for all staff and is mandatory as part of their benefits, though employees can still access medical care outside of the scheme but are expected to pay for it. However, as found in the study one of the challenges affecting the extent of staff utilisation of the scheme is the scheme's limited coverage of illnesses, which causes some employees to be disappointed when they are asked to pay for a portion of medical treatment that is not covered by their enrolled HIS scheme.

The interviews revealed that, while the scheme does not cover all illnesses, it has assisted many employees in not running helter-skelter when sick. In a similar study conducted in Ibadan, Nigeria, Adewole *et al.* (2022) discovered that the availability of an NHIS registered facility to an individual household does not necessarily reflect high patronage or utilisation of health care services from NHIS facilities, as some people bypass one NHIS facility to another during health seeking. Although the study by Adewole *et al* (2022) did not investigate the reasons for bypassing, other studies identified the desire for quality health care and awareness of available health care services at facilities as some of the reasons (Wong, Benova and Campbell, 2017; Tanou and Kamiya, 2019). This finding aligned with the assumption of the health belief model adopted in the current study that various factors that influence the use of health insurance scheme services are categorized into society, health system, and individual factors (Becker, Haefner, and Maiman, 1977).

The current study found that employees' interviews supported the motion that a large number of employees are using the HIS in private sectors that have adopted the programme. According to the employees interviewed, staff awareness of the importance of the scheme is an important factor motivating employees to make extensive use of the HIS plan. Other motivators mentioned by the employees include the HIS's low cost and promotion of healthy family lifestyles. A similar study conducted in Nigeria by Oriolowo *et al* (2022) among staff of federal colleges of education in Nigeria discovered

that the removal or reduction of financial burden from NHIS enrollees who use facility services was a factor influencing the adoption and utilisation of services from HIS hospitals and clinics. Similarly, in Anambra state, Nigeria, Onyemaechi and Ezenwaka (2022) found that employees who were enrolled in HIS to receive quality health care services at an affordable cost were less likely to engage in self-medication or use health care services from herbalists or chemist shops. According to the study, there was a link between affordability and high-quality health care and appropriate utilisation of hospital based health care services.

As revealed in the current study, majority of employees utilised HIS because the scheme is good and provides low-cost health care. According to the employees interviewed, some of the issue with the program is the waste of time in the hospital and the administration of ineffective drugs to patients. Aside from these, the employee stated that HIS is better compared to the out-of-pocket health care system. In corroboration with the current findings, a study conducted by Oriolowo, Asarya, and Olarongbe (2022) among 165 sample respondents who were staff of federal colleges of education in a cross-sectional survey in North Central Nigeria discovered that while the majority, more than 70%, of the respondents were aware of the existence of NHIS, more than 60% of the participants complained of long waiting times at health facilities when utilising NHIS services. Similarly, in a study conducted by Daka *et al* (2021) in Zambia, paying out of pocket delays health utilisation, whereas health care insurance increases the likelihood of receiving health care from a professional at a facility.

The current study found that among the 22 percent of the respondents who did not utilise HIS, more than half of the respondents (69.4%) did not use health insurance because they believed they were not frequently sick. This was followed by 10.3 percent who stated that they prefer other forms of health care treatment to using HIS hospitals. Other forms of illness treatment mentioned by respondents included seeking care from prayer houses, traditional care providers, and self-medication. Approximately 8 percent said they dislike health insurance schemes, and 2 percent said they do not believe their illness could be adequately treated in hospitals under their health insurance scheme. A closer examination of these findings reveals that many respondents believe they should only visit the hospital when they are sick. This means that if they are not sick, they do not require hospital health care services. Although previous studies have not shown

similitude of findings, however in a study of 114 samples in Zambia, Daka *et al* (2021) found that having a large family size influences non-professionals' utilisation of health care. According to the study, those with large family sizes already have a lot of financial responsibilities for family upkeep, so financial inadequacy prevented them from seeking professional care when they were sick, especially if they used a health facility as their first point of contact.

As illustrated in the current study's findings, the assumption that people should not go to hospitals/clinics for health care because they are not sick is disastrous and could lead to more health complications because it is appropriate to go to health care for regular check-ups to prevent diseases and infections rather than waiting until they are sick. By implication, preventive medical care is as important as curative medical care because it prevents unnecessary illnesses that require curative care and keeps individuals and families healthy. Furthermore, the fact that 5% of respondents complained of wasting time each time they visited hospitals to access services under their health insurance scheme indicates that actions are urgently needed to minimize clients' time wastage at health care facilities in order to encourage more patients to always visit healthcare facilities for care when they are slightly or seriously ill. A previous study by Oriolowo *et al* (2022) found that, while NHIS enrollees experienced delays in utilisation of health care services in hospitals and clinics, which may have discouraged some of the enrollees, the delay was not intentional and was attributed to the limited number of doctors and nurses in the hospitals.

The current study's quantitative interview findings were supported by qualitative interviews, which revealed that many employees visit HIS hospitals for curative care rather than preventive care. The study found that on the percentage distribution of respondents based on their frequency of becoming ill, the majority of respondents (76%) stated that they rarely get sick. Only 3% of those polled said they were "very often sick," compared to 15% who said they were "often sick." The assumption of not becoming ill frequently influences the number of times employees are likely to visit health care facilities in which they have been enrolled, particularly when the location of the health care facility is not closer to the respondents' homes of residence, especially in this part of the world where access to and utilisation is limited. A past study conducted by Daka *et al*. (2021) noticed that in Zambia, a long distance to a health facility was a major

barrier to people seeking health care from health insurance hospitals and clinics. According to the findings of the Daka *et al* (2021) study in Zambia, the establishment of many health care facilities closer to the people will allow many more people to receive health care from professionals.

In the current study, because some respondents prefer other forms of health care services to using health insurance schemes, an analysis of the percentage distribution of respondents by their most preferred place of treatment when sick revealed that although the highest percent category of respondents (48.6%) prefers health insurance scheme services when sick, others' opinions when combined reasons for utilising other forms of health care outside HIS services exceed 50 percent. For example, 20.4 percent of respondents prefer the services of other hospitals over the hospitals in which their organisations enrolled them for health insurance scheme services. Surprisingly, while 24.2 percent prefer traditional medical care, 4.0 percent prefer home/self-care, and 2.4 percent prefer faith/religious care services over health insurance scheme services. According to a study conducted by Daka *et al* (2021) in Zambia, the rich prefer health facilities where they can get quick access to health care, which may play a role in the rich accessing health care from health insurance hospitals and clinics or from other sources. In Ghana, Akweongo *et al* (2021) found that the adoption of a manual method of processing enrollees and health care providers' information contributed significantly to errors on claims reports, delaying reimbursement and causing delays in services delivered to HIS users.

The qualitative findings indicate that some employees prefer not to be enrolled in the HIS program for financial reasons, unless their employers have made it mandatory for all employees. Some employees believe they do not receive adequate value for the money deducted from their salary or organisation as part of the HIS scheme. Out-ofpocket payment is more cost-effective for these employees than HIS scheme enrollment. According to the interview, another factor limiting the extent of HIS utilisation by employees is employees' laxity in visiting the enlisted HMO office or HIS hospital to enroll in the scheme and begin using the HIS hospital services on time. Some employees believe that the procedure is too time-consuming and that they do not have enough time to follow up on registration procedures, especially when the HIS registration is far from their residence. In a previous study, Adewole, Reid, Oni, and

Adebowale (2022) found that the spatial distribution of health facilities registered with NHIS influences the extent of NHIS programme utilisation among enrollees in a study of 420 NHIS enrollees in Ibadan, Nigeria. Merga *et al* (2022)'s research in Ethiopia found that people from wealthier families used HIS more than those from poorer families. Interrogation revealed that other expenses not covered by the scheme, such as transportation to and from health facilities, instil fear in patients and prevent poorer households from using HIS.

The current study found that program funding heavily influences employees' use of the HIS program. The study found that some employers deducted a portion of the HIS premium from employee salaries in order to make the bulk payment at the end of the month, whereas other organisations pay their employees without deducting money from their salaries in order to motivate employees. While any of these strategies may encourage employees to use the HIS scheme, if not properly managed, they may also discourage employees. This is because some employees who are aware that a portion of their salaries is being deducted may be encouraged to use HIS health care services in order to avoid wasting their resources. Furthermore, not deducting HIS premium payments from employees' salaries could serve as a motivator, encouraging employees to work hard and stay healthy in order to increase productivity. Caution is required in each case to encourage effective health care utilisation among employees. In a previous study, Adewale *et al*. (2016) found a similar challenging finding in their study in Lagos, Nigeria, where they noted that employees kept complaining about their salary being deducted whether or not they had enrolled in the scheme. According to Adewale *et al*. (2016)'s study in Lagos, Nigeria, federal government employees perceived the scheme as mandatory for all employees, whether they enrolled or not. According to a study conducted by Oriolowo *et al* (2022) among 165 participants in North Central Nigeria, one of the challenges encountered that led to low utilisation of NHIS was that employees in the public sector saw the scheme as one of the government's strategies to extort money from public servants.

The current study found that on the percentage distribution of respondents based on their preferred place for medical treatment when ill. When asked where they would go for medical treatment if they were sick, slightly more than half of the respondents (51.3%) said it was based on 'good services' rendered/received. Following this, 30.5 percent

mentioned 'low cost/affordability.' About 10% cited proximity and 7.2 percent cited caregiver attitudes as reasons for their preferred place for medical treatment when sick. This means that employees are less likely to use health insurance when they believe the hospital/clinic is not providing good or quality care except for other intervening factors. It also implies that negative attitudes of health-care providers may discourage employees from using hospital-based health-care services, even if they have been enrolled by their organisations to do so. A similar study conducted by Adebiyi and Adeniji (2021) realised that enrollees of Nigerian health schemes who were satisfied with the services provided to them in facilities recorded positive satisfaction due to the positive attitude obtained during interaction with health care providers. According to Adebiyi and Adeniji (2021), improving the health worker-patient relationship could increase enrolment and utilisation of health care professionals in health facilities. A study conducted in Rivers State by Michael *et al.* (2017) observed that the attitudinal treatment received from health workers by patients and enrollees of NHIS programmes is strongly associated with scheme utilisation.

However, what is troubling is that approximately 30.5 percent of respondents in the current study stated that their preferred place for medical treatment when sick is low cost/affordability of health care, implying that some employees may access health care services from hospitals/clinics not because they are receiving quality services from such hospitals/clinics, but because they believe they are receiving low cost of services from such a place compared to other places. A previous study found that universal health coverage provides access to affordable financial protection and health services, as well as compensation for lost productivity due to illness (Preker, Lindner, Chernichovsky, and Schellekens, 2013). Similarly, in Anambra state, Nigeria, Onyemaechi and Ezenwaka (2022) found that enrolling participants in the HIS that provided users with affordable services, quality services/drugs, and access to health care professionals contributed to improving enrollees' health seeking behaviour. In a study conducted in Uganda by Mpuuga and Eshete (2022), having the willingness to pay for HIS does not always result in actual utilisation of the scheme due to affordability as other factors could intervene and prevent smooth utilisation of the scheme.

In the current study, the qualitative interview findings support the quantitative findings despite slight variations. Interviews conducted revealed that some employees are

required to enroll in HIS in some organisations, even if it is against their will. The interviews revealed that the cost of utilizing HIS services is usually not too high on employees because organisations bear a greater portion of the financial responsibility, making the scheme economically and employee-friendly. The interviews also identified proximity to a health care facility as a barrier that some employees faced, contributing to their low utilisation of HIS hospitals/clinics. As disclosed in the interviews the HIS management are aware of the proximity challenges and have taken action, and that they are still putting in more measures to increase the number of HIS hospitals/clinics in order to bring health services closer to employees. In a previous study Lawson (2014) identified and listed the factors influencing the use of modern health care as including a long-distance travel to health care facilities. In the same vein, Adewole *et al.* (2022) discovered that distance to health facility was a major factor influencing enrollees' appropriate and timely utilisation of NHIS engaged hospitals in Ibadan, Nigeria.

As found in the current study, the employers are excited about the scheme because it addresses the health needs of their employees, resulting in a healthier workforce and increased productivity in the long run. The interview sessions revealed that adopting HIS by organisations benefits both employees and employers by keeping employees healthy, sound, and efficient to provide productive services. With slight deviations from the current study finding, a study by Alawode and Adewole (2021) found that healthcare providers in the scheme are frequently dissatisfied with the capitation from employers and employees in the system, as the capitation is frequently lower than the health needs of clients. On the other hand, they also discovered that employees are also complaining that the scheme's benefits are less than the capitation invested in the programme.

Interviews conducted in the current study revealed that the extent of HIS scheme utilisation is quite moderate and increasing, though not consistently as some enrollees visit HIS hospitals infrequently. The interviewees cited delivery and certain surgeries as factors that encouraged enrollees to use HIS services. According to the interviews, HIS does not usually prevent any enrollee from using its services, except for those employees who have used up their enrolment premium for the months in which they need to still use the service but pay for the extra health care services. Similarly, in a previous study by Solanke (2021), using a national population-based study of 41,821 Nigerian women,

women who enrolled in health insurance had a higher prevalence (70.5%) of delivery in a health facility than those who did not.

The study found that employees are also pleased with their organisations' adoption of the HIS scheme. According to the interviewees, the adoption of the HIS programme and enrollment of employees in the scheme has increased the utilisation of professional health care services among employees in the private sector. It emphasized that because employers have paid for their employees' premiums, the employees are free to utilise HIS's health services. The interview session also revealed that low utilisation of HIS services among employees occurs most often when employers have yet to pay for employees' health premiums, as health care providers do not diagnose or treat enrollees whose premium has yet to be paid. In a previous study conducted in Cameroon, enrollment in health insurance, as revealed by Obiamaka *et al* (2021), was associated with healthy living because the insurance scheme keeps many enrolees healthy. Obiamaka *et al* (2021) study in Cameroon discovered that those who are healthy are less likely than those who are ill to be willing to pay for health insurance premiums. However, Akweongo *et al* (2021) study in Ghana found inadequate funding and premiums as factors preventing the smooth operations of the HIS.

The interviews with the health care provider revealed that the extent of utilisation of HIS services is increasing, as many employees enrolled in the program have attested that their enrollment in the HIS program has provided them with opportunities to access health care services from health professionals that they would not have had access to if not for the HIS program. The interview sessions also revealed that if the scheme is well organized and funded, it has a chance of succeeding in private organisations. The interviews also revealed that enrolling employees in the HIS program reduces stress on doctors when patients are diagnosed early. This supports the position of the health belief model adopted for the study that appropriate health seeking behaviour undertaken helps an individual to avoid becoming ill or to trace a sickness at an early stage in order to be healthy (Kasl and Cobb, 1966).

Findings from the percentage distribution of respondents who believe that certain illnesses cannot be cured in conventional medical centres using a health insurance scheme revealed that the majority of respondents (74.4%) believed that there are illnesses that cannot be cured in conventional medical centres using a health insurance

scheme. Believing that some illnesses cannot be treated in hospitals covered by health insurance schemes can discourage employees from seeking medical health care for illness treatment. The types of illnesses that respondents believe cannot be cured in hospitals remain a question that will be addressed in a follow-up analysis. In a past study, Brown *et al.* (2017) found that cultural beliefs and traditional health practices of people have a distinct effect on their well-being and affect their use of conventional health care facilities in Sub-Saharan Africa.

Findings on the percentage distribution of respondents by type of sicknesses/diseases believed by respondents to be incurable in orthodox medical centers covered by health insurance schemes revealed that more than half of the respondents (53.2%) identified spiritual diseases as a type of disease that cannot be treated in hospitals covered by health insurance schemes. This was followed by 29.3 percent who identified terminal diseases as diseases that cannot be cured in hospitals under the coverage of health insurance schemes. Because a large number of respondents believe that certain illnesses cannot be cured or treated in hospitals/clinics under health insurance scheme coverage, and more than half of the respondents pointed to spiritual illnesses, it appears that superstitious beliefs are still prevalent among the study area's population. This could cause a delay in receiving medical care from experts. A previous study conducted in Nigeria by Alawode and Adewole (2021) discovered that superstitious belief is a factor influencing scheme utilisation as well as employee health seeking behaviour.

Findings from the chi-square distribution of employees by the extent of health insurance scheme utilisation by selected socio-demographic variables revealed that age (pvalue=0.028), marital status (p-value=0.005), number of children (p-value=0.003), sex (p-value=0.037), education (p-value=0.004), religion (p-value=0.038), grade level (pvalue=0.029), and average monthly income (p-value=0.001) all had a significant influence on health insurance scheme utilisation. For example, as respondents' ages increase, so does their use of health insurance schemes. The age group 50 and above had the highest percentage of respondents (50.0 %) who utilised the health insurance scheme adequately. Respondents aged 29 and below had the highest rate of partial utilisation of the health insurance scheme. Married people had the highest percentage of respondents who utilised the health insurance scheme adequately (51.0%). A similar finding was found in previous study conducted in Uganda by Medard *et al.* (2022) that

married and older people were more likely to use HIS services than unmarried or single people and younger people. Also, Mhlanga and Dunga (2020) discovered that marital status has a significant influence on HIS utilisation in a study conducted in South Africa.

Respondents' adequate utilisation of health insurance schemes increases as number of children born increases. For instance, adequate utilisation of health insurance schemes was highest among respondents with 5 or more children (58.0%) and lowest among those with without children. Female respondents utilised the health insurance scheme significantly more adequately than male respondents, 34.8 percent versus 53.7 percent, respectively. Those with tertiary education used health insurance schemes more adequately than those without: 29.8 percent and 59.1 percent, respectively. The adequately utilisation of health insurance schemes was highest among Christians (50.6 %) and lowest among traditional worshipers (26.7%). Senior staff used the health insurance scheme more adequately (50.5 %) than junior staff (32.9%). The proportion of respondents who utilised their health insurance scheme adequately was highest among those with an average monthly income of N100,000 or more (54.0%) and lowest among those with less than an average monthly income of N31,000. Salari *et al*. (2019) conducted a similar study in Ghana and discovered that individuals with higher income levels use HIS more than those with lower income levels.

Findings from the results of a multinomial logistic regression on the extent of health insurance scheme utilisation by selected socio-demographic variables for employees, which were analysed and presented separately for 'Partially utilised HIS vs. Not utilised HIS' and 'Adequately utilised HIS vs. Not utilised HIS' for easy comprehension revealed that partial utilisation of health insurance scheme, there is a significant relationship between age and partial utilisation of health insurance schemes, with respondents aged 40-49 and 50 and above being 1.5 and 2.9 times more likely to partially utilise health insurance schemes, respectively, than those aged 29 and below. Married respondents were 2.5 times more likely than unmarried respondents to partially utilise a health insurance scheme. Respondents with 3-4 children and 5 or more children were 2.0 and 2.5 times more likely than those without a child to partially utilise a health insurance scheme. Respondents with tertiary education were twice as likely as those without tertiary education to partially utilise a health insurance scheme. Islamic worshipers were 29% less likely than Christian worshipers to partially utilised a health insurance scheme.

Respondents with an average monthly income of N51,000-N99,999 and N100,000 and above were 1.2 and 2.2 times more likely to partially utilised a health insurance scheme than those with an average monthly income of less than N31,000, respectively. Aligning with the current study findings, a previous study by Onyemaechi and Ezenwaka (2022) observed a significant positive relationship between marital status, education, occupation, and HIS utilisation, for example, higher educational levels correlate with better health seeking behaviour among HIS enrollees. A study conducted in Uganda by Medard *et al* (2022) revealed that religion influences HIS programme utilisation. Medard *et al.* (2022) discovered that those of the Catholic faith were more likely to use HIS services than those of other faiths.

Findings from the results of a multinomial logistic regression on adequate utilisation of health insurance scheme, indicate that respondents aged 40-49 and 50 and above were 2.6 and 4.9 times more likely to adequately utilise their health insurance scheme than those aged 29 and below. Married respondents were 2.6 times more likely than single respondents to adequately utilise their health insurance scheme. Those who were not 'currently married', including the separated, divorced, and widowed, were 92 percent less likely than those who were married to adequately utilise health insurance scheme. Respondents with 3-4 children and 5 or more children were 3.8 and 3.9 times more likely, respectively, to adequately utilise health insurance scheme than those without a child. Female respondents were 2.0 times more likely than male respondents to adequately utilise health insurance scheme. In contrast to the current study finding, Merga, Balis, Bekele, and Fekadu (2022) found that male-headed households were more likely than female-headed households to enrol in and use HIS in a nationally representative sample of 8,663 Ethiopians. The study conducted by Merga *et al* (2022) in Ethiopia supported its findings by stating that having a male-headed household using HIS rather than a female-headed household was related to the fact that in Africa, men frequently take financial responsibility for issues related to health and home decisions.

Respondents with tertiary education were 3.5 times more likely than those without tertiary education to utilise health insurance schemes adequately. Respondents affiliated with Islamic and Traditional religions were 68% and 45% less likely, respectively, to utilise health insurance schemes adequately than Christian religious worshipers. Senior employees were 2.9 times more likely than junior employees to adequately utilise the

health insurance scheme. Respondents with an average monthly income of N51, 000N99,999 and N100,000 and above were 2.6 and 3.4 times more likely to adequately utilise a health insurance scheme than those with an average monthly income of less than N31,000, respectively. A similar finding was found a previous study conducted in Zambia by Daka *et al.* (2021) that respondents' treatment pathways in their study in Lusaka, Zambia were influenced by education and income. Higher income and education, therefore, increase utilisation of professional health care providers.

On the influence of the adoption of health insurance scheme on health-seeking behaviour of employees, the study found that on the percentage distribution of respondents based on their perception of organisations' adoption of health insurance schemes to support employees' health seeking behaviour, half of the respondents (50.1%) thought the adoption of a health insurance scheme to support employees' health seeking behaviour was 'good.' This was followed by 33 percent of respondents who rated organisations' efforts in implementing health insurance schemes to support employees' health seeking behaviour as 'excellent.' Only 2% of respondents rate the adoption of health insurance schemes by organisations to support employees' health seeking as 'poor'. This means that a sizable proportion of respondents were positive about the scheme's implementation to encourage employees' health-seeking behaviour. An earlier study by Ibok (2012) found an increase in health insurance enrollment among formal employees. According to Mulenga *et al (*2021)'s study in Zambia, the fact that formal employees are more likely to enrol in health insurance than self-employed people is related to the fact that formal organisations are more likely to enrol their employees in health insurance.

In the current study, the findings of the qualitative interviews support the quantitative findings in that the majority of respondents have a positive perception of the adoption of HIS by their organisations and are excited to be enrolled in the scheme. The employees stated that there are numerous success stories associated with the utilisation of HIS for health seeking. According to the employees, one of the success stories on the health-seeking behaviour of employees is that whenever a family member becomes ill, that family member can visit HIS hospital to receive the necessary diagnosis and treatment. According to the employees, using the HIS has been a wonderful experience that has improved the health of employees and family members. A previous study

conducted in Ethiopia by Merga *et al*. (2022) found that people with larger family sizes were more likely to use HIS than individuals from smaller households in an Ethiopian study using data from the Demographic and Health Survey. The study by Merga *et al* (2022) in Ethiopia associated higher utilisation of HIS among larger families with the fact that people with larger family sizes are more likely to be faced with health catastrophe and members suffering from unplanned health complications, so using HIS becomes the best logical option to cater for contingency that could lead to large use of unplanned out of pocket expenses. In contrast, a study conducted among 1,208 Malaysians by Hasan and Rahman (2022) found that having a smaller family size increases participants' willingness to pay for HIS and likelihood of using HIS.

The employees stated that the organisational policy of enrolling employees in the HIS program has shaped his and his family's health seeking behaviour by encouraging them to seek health care from registered HIS hospitals. According to the interviews, HIS is cost-effective and efficient in health care. His statement revealed that the scheme is free for employees as long as their health-care costs are covered by their HIS coverage/package. Key informant interviews revealed that nearly all of the staff in the organisations, more than 70%, use HIS for health care, and that enrollment in the HIS has strongly directed employees' health seeking behaviour. As found in the study, while HIS has influenced employees' health-seeking behaviour, the organisations' staffs are sometimes concerned about HIS hospitals administering ineffective drugs to enrollees, despite the lack of concrete evidence to support the allegation. This implies that some employees may have felt uneasy seeking health care from HIS hospitals for fear of being given ineffective drugs. Though previous studies have not reported on this very finding, a study conducted in Kenya by Mbuthia *et al* (2018) found that because patients were unsure of the exact cause and condition of their illness, they were more likely to self-medicate as a first step toward health seeking by purchasing drugs from chemist shops. Mbuthia *et al.* (2018) discovered that when patients' illnesses worsened, they were more likely to seek medical attention from a health facility.

Interviews revealed that employees have a choice in their perception of HIS and the health-seeking process because the organisations do not compel any employees to use HIS accredited hospitals for health care. According to the interviews, the organisations will only enroll all employees in order to improve their health and keep them fit in order

to deliver effective and efficient services and avoid health-related excuses. The interviews also revealed that the HIS enrolment plan for employees does not cover all health expenses, so employees must pay for any health care services that are not covered by the enrolment plan. In a study conducted in Zambia, Daka *et al* (2021) discovered that the most common reason for non-utilisation of health care providers, including health insurance hospitals and clinics, particularly public hospitals, was the writing of prescriptions for them to go and buy outside the hospitals due to a lack of drugs in the hospital facility.

The current study found that on the percentage distribution of respondents based on their preferred type of health care system for seeking treatment when sick, the majority of respondents (81.0 %) prefer health insurance schemes as a suitable type of health care system for treatment when ill. This means that the majority of employees value organisations' adoption of health insurance schemes to support their health-seeking behaviours. Despite the fact that some employees saw it differently, they saw it as a strategy that could benefit their health. The qualitative data reinforce the quantitative findings that the majority of respondents seek health care from HIS accredited hospitals/clinics, despite the associated challenges. Interviews with employees revealed that employees use HIS accredited hospitals for health care to reduce financial burden and have peace of mind knowing that their health expenses are covered by the scheme. Interaction with employees revealed that employees are enlisting in plans that will cover a broader range of health diagnosis and treatment expenses. The interviews revealed that employees' perceptions of HIS health care versus other forms of health care were shaped by the hope of having their health expenses paid for. An earlier study conducted in Ibadan, Nigeria, by Alawode and Adewole (2021) using a qualitative approach among health care providers, government representatives, and health insurance scheme regulators found that poverty is a significant factor preventing the adoption of health insurance schemes, particularly among those in non-governmental employment or the informal sector. Their research revealed that, while some employees were willing to pay out of pocket, their insufficient financial status and financial capacity prevented many from taking advantage of the scheme.

Interview with employees in one of the service industries studied in the current research revealed that the employees used the HIS for a variety of health purposes, including

child delivery. Although the employees explained that the scheme does not cover all health packages, they were overjoyed that it covered their delivery costs. The interviewees also expressed confidence that if the HIS is well managed and organized, it will be the best health-care system in the country. The employees claims that because they are enrolled in the HIS, the program frequently prompts them to seek health care from HIS-accredited hospitals on time. Enrollment in the HIS, in other words, reduces the time it takes to seek medical attention. In a past study conducted in Nigeria, Solanke (2021) found that women who enrolled in health insurance had a higher prevalence (70.5%) of delivery in a health facility than those who did not. According to Solanke's (2021) research, factors that influence women's use of health insurance for delivery purposes include the gender of the head of the household, the type of marriage, and the most recent delivery.

In-depth interviews with employees revealed that enrolling employees in the HIS has positively skewed private employees' health-seeking behaviour toward accessing healthcare services from health-care facilities. The interaction also revealed that the health benefits of enrolling in the scheme increase family members' use of professional health care. According to the employees, the HIS is reasonably priced and has a welcoming organisational culture. However, the employees added that the policy should be expanded to include other types of healthcare coverage, such as surgeries and expensive drugs, in order to improve employees' health-seeking behaviour. According to a study conducted in Uganda by Mpuuga and Eshete (2022), having the willingness to pay for HIS does not always result in actual utilisation of the scheme due to affordability. According to their findings, enrolling in HIS services for non-communicable diseases is more expensive than enrolling in HIS services for communicable diseases. As found by Onyedibe *et al* (2013) HIS contributes to payment difficulties for salaried workers whose ill-health is not covered.

Employees stated in in-depth interviews that the HIS program is appropriate and has influenced the health-seeking behaviour of many employees. The interviewees specifically stated that they used HIS services during their caesarean section (CS) delivery without having to pay out of pocket. Having reaped the benefits of her organisation enrolling employees in the scheme, they advocated for legislative action to ensure that all employers adopt and enrol employees in the HIS program. According to

the interviewees, most employees are usually excited about the scheme because it reduces their financial burden by paying for all or a portion of their health care costs. According to the interviewees, in maternity cases, especially when a caesarean section or other surgery is required, employees are usually delighted because the scheme reduces the financial burden that comes with such financial situations. As found disclosed in the interview sessions, one can see the joy on employees' faces when they are asked to go home (discharged from the hospital without paying from their pockets). In previous research, Solanke (2021) discovered, using a national population-based study among Nigerian women, that women who enrolled in health insurance had a higher prevalence (70.5%) of delivery in a health facility than those who did not.

Because some respondents prefer other types of health care systems to health insurance schemes, the study found on the percentage distribution of respondents by reasons for preferring out-of-pocket payment in health seeking even though their organisation has adopted a health insurance scheme and enlisted them, more than half of the respondents (64%) prefer other types of health care systems to health insurance schemes because they want unlimited access to any health care facility of their choice. They believed that enrolling in a health insurance scheme would deny them the ability to use health care services at any health facility of their choice because not all hospitals/clinics are accessible with any type of health insurance scheme enrolment. This was followed by 18% who chose other types of health care systems over health insurance schemes in order to avoid the negative attitudes of health insurance scheme professionals. Furthermore, 15% of respondents chose other types of health care systems in order to avoid any additional payments or costs that may result from enrolment in a health insurance scheme program. By this, the respondents are referring to the additional costs that employees are expected to pay in the treatment of certain illnesses that are not fully or partially covered by their health care insurance scheme package. According to Daka *et al* (2021)'s study conducted in Zambia, the main reason for delay in using professional health care among the poor was financial constraints, whereas it was service delay among the rich respondents.

In response to qualitative interviews on why some employees prefer out-of-pocket payment to HIS for healthcare seeking behaviour despite their organisations enrolling them in health insurance scheme program. According to one of the operations managers,

the organisations are not monitoring any measures that could compel employees to use HIS hospitals/clinics when they are sick. As per the interviewees, organisations only have control over the payment of subscription or premium charges and not over compelling employees to use HIS health care, so there is no evidence-based data on the utilisation of HIS for health-seeking behaviour. Another factor identified by the Operation Managers interviewed is that some employees seek alternative health care of their choice because their HIS enrolment program does not cover certain illness treatments. Furthermore, as explained by the interviewees, some expensive drugs are not covered, and some hospitals near the employees are not HIS accredited, forcing some employees to seek health care from other sources. In a past study, Daka *et al* (2021) discovered that the most common reason for non-utilisation of health care providers, including health insurance hospitals and clinics, particularly public hospitals, was the writing of prescriptions for them to go and buy outside the hospitals due to a lack of drugs in the hospital facility.

Key informant interviews with the HMO's Regional Managers on the reasons why some employees are not using the HIS for their health care revealed that while some employees are satisfied with the program, some are still unhappy with the HIS's operation for various reasons, for which efforts are being made to rectify the situation. Employees who are dissatisfied with the program for one reason or another may use that reason to seek health care from a facility other than an HIS accredited facility. According to the complaint received during the interviews, some employees are not using the HIS because they believe the drugs provided by HIS accredited hospitals/clinics are not safe. Respondents in key informant interviews explained that employees sometimes seek out-of-pocket payments because many HMOs do not collect instalment payments from their employers. Because employers cannot pay the entire premium or payment, their employees are denied free services in HIS accredited hospitals unless they are willing to pay for the services themselves. The interviewees also stated that because some employees do not visit HIS accredited hospitals because their enrolment package does not cover major illnesses and treatment, the way forward is for employers and employees to have a better understanding of a more beneficial and friendly HIS package. A previous study in Nigeria by Alawode and Adewole (2021) discovered that drug stock-outs and a lack of awareness about the scheme's effectiveness have seriously impacted its utilisation among country-specific individuals.

Interviews with respondents revealed that some HIS accredited hospitals routinely deny employees health care services because the HMOs in charge of their premiums owe the health care providers. Interaction with the health care providers revealed that not only do employers owe, but HMOs in charge of remitting payment or reimbursing health care providers must pay the health care providers on time in order for employees to continue receiving services. A study conducted in Ghana by Akweongo *et al* (2021) discovered that claims reimbursement delays impede effective utilisation of HIS. Their study discovered that among health care providers who applied for claim reimbursement, there is no uniformity in their submissions, indicating that there is insufficient education on adherence to guidelines on claim reimbursement submission, which in the short or long run created distortion in HIS utilisation among enrollees.

Findings from the percentage distribution of respondents by types of health care used prior to their organisation's adoption of a health insurance scheme revealed that it should be noted that some employees were already enrolled in one form or another of health insurance scheme before their organisations formally adopted the scheme for staffs, whereas in other cases, some employees may not have been enrolled in the health insurance scheme until they were hired by their current organisations, which had already adopted the scheme. In any case, the researcher was aware of these differences and was able to address them adequately during data analysis in order to capture all variables in the analysis. Having said that, the study found that at the time of the survey, slightly more than half of the respondents (51.0%) were using hospitals without a health insurance scheme prior to their organisation adopting the scheme for employees. This was followed by 29% of respondents who stated that they were primarily using patent medicine/pharmacy shops prior to their organisation implementing the scheme for employees. Before their organisations formally adopted the program for employees, approximately 11% of the respondents were already enrolled in the health insurance scheme. In view of this, a study in Ghana by Obiamaka *et al.* (2021) found that health insurance is a programme that provides for times of risk and uncertainty so that enrollees are not disappointed when faced with health challenges. They discovered the scheme as a programme that enables enrollees and families to effectively plan for their health needs in order to avoid falling into unexpected poverty due to illness.

The study found that on the chi-square distribution of respondents by health insurance scheme related influential variables by employee health-seeking behaviour, the findings revealed that there are significant associations between employee health seeking behaviour and the extent of benefit from HIS (p-value=0.000), satisfaction with HIS services available (p-value=0.000), area of care not satisfied with HIS (p-value=0.000), productivity before HIS adoption (p-value=0.008), productivity during HIS adoption (pvalue=0.000), and general health status during HIS adoption (p-value=0.000). For example, the results show that the majority of respondents (76.1 %) who benefited 'a lot' from health insurance scheme adoption were those whose health seeking behaviour was influenced by the health insurance scheme adoption. A previous study in Nigeria by Onyemaechi and Ezenwaka (2022) observed that enrolling in HIS shaped and determined enrollees' health seeking behaviour, as HIS participants were more likely than others to have positive health seeking behaviour.

In terms of satisfaction with HIS services available, the current study found that half of the respondents (50.1 %) who were satisfied with HIS services available were those whose health seeking behaviour was influenced by the adoption of a health insurance scheme. Nearly half of the respondents (42.2 %) who were dissatisfied with an aspect of care provided by HIS were those whose health seeking behaviour was influenced by the adoption of the health insurance scheme. More than half of the respondents (56.0 %) whose productivity was moderate prior to HIS adoption were those whose health seeking behaviour was later influenced by the health insurance scheme adoption. In terms of productivity during HIS adoption, the majority of respondents (72.8 %) whose productivity was high were those whose health seeking behaviour was influenced by the adoption of a health insurance scheme. The general health status of those influenced by the adoption of a health insurance scheme improved from 15.9 percent general health status to 55.9 percent general health status before and after the adoption of an HIS. Similarly, in Anambra state, Nigeria, Onyemaechi and Ezenwaka (2022) discovered that HIS enrollees who used private hospitals and clinics adopted a more appropriate health seeking behaviour than those who used public hospitals. In explaining the differences in health seeking behaviour between public and private hospital users, their findings revealed that those who use private hospitals reported receiving better health care services than those who use public hospitals.

The results of a binary logistic regression based on selected socio-demographic variables to show the health-seeking behaviour of employees whose organisations have implemented a health insurance scheme revealed that health seeking behaviour of respondents between the ages of 30-49 were 89 percent less likely to be influenced by the adoption of a health insurance scheme than those between the ages of 18 and 29. In contrast, health seeking behaviour of respondents aged 50 and older were 3.5 times more likely to be influenced by the adoption of a health insurance scheme than those aged 18 to 29 years. When compared to single respondents, health seeking behaviour of married respondents were 4.1 times more likely to be influenced by the adoption of a health insurance scheme. Similarly, a previous study conducted in Uganda by Medard *et al.* (2022) discovered that married and older people were more likely to use HIS services than unmarried or single people and younger people. Similarly, Mhlanga and Dunga (2020) discovered that marital status has a significant influence on HIS utilisation in a study conducted in South Africa.

Health seeking behaviour of respondents with 3-4 and 5 or more children were 2.5 and 3.4 times more likely to be influenced by the adoption of a health insurance scheme, respectively, than those without a child. When compared to male respondents, health seeking behaviour of female respondents were 1.9 times more likely to be influenced by the adoption of a health insurance scheme. Respondents with tertiary education were 7.2 times more likely to be influenced by the adoption of a health insurance scheme than those with less than tertiary education. Senior employees were 1.6 times more likely than junior employees to be influenced by the adoption of a health insurance scheme. Health seeking behaviour of respondents with average monthly incomes of N31,000N50,999, N51,000-N99,999, and N100,000 and above were 2.8, 3.8, and 4.0 times more likely to be influenced by the adoption of a health insurance scheme than those with less than N31,000, respectively. A study conducted in Malaysia by Hasan and Rahman (2022) discovered that education, wealth index, and occupation all influence study participants' willingness to pay for HIS. In contrast, gender, marital status, and ethnicity did not significantly influence study participants' willingness to pay for and use of HIS, according to the study conducted in Malaysia by Hasan and Rahman (2022).

On the treatment pathways of employees utilising health insurance scheme, the study found that on the percentage distribution of respondents based on their usual first action taken when they are sick, more than half of the respondents (61.2 %) usually visit a health insurance hospital as soon as they discover they are sick. This was followed by 23.2 percent of respondents whose usual first action when suspected a disease was to use home treatment/self-care or lifestyle therapy. Only a small percentage of respondents, 0.2 percent and 2.9 percent, visit traditional medical and faith/religious centers first. This means that the common practice of first visiting faith/religious centers when an individual becomes ill, as was common in most Nigerian and other African states, is declining. To buttress this finding, a previous study conducted in Nigeria by Alawode and Adewole (2021) found that enrollees are now given the freedom to choose their HMOs, as opposed to when the programme first began, when employees were typically assigned HMO. According to their research, this occurs because many employees complain about not receiving quality service from the HMO assigned to them. Many employees have been able to direct their treatment pathways to utilising health insurance services because they have the freedom to choose their HMO of choice. According to the study conducted by Alawode and Adewole (2021) in Nigeria, giving employees the option to choose their HMO or health provider of choice has contributed to many employees directing their attention to three or fewer health care providers and facilities.

The quantitative findings are consistent with the quantitative research findings, indicating that a large number of employees whose employers have adopted HIS for staff sourced health care services from HIS accredited hospitals. For example, in-depth interviews with some of the employees in the private organisations about pathways to health seeking after a recent illness revealed that some employees only seek health-care services from HIS-accredited hospitals. In the case of the interviewed employee who had malaria, she only went to an HIS-accredited hospital. According to her statement, the employee was pleased with the services provided by HIS hospital. According to the interviewee, she received appropriate medication from the HIS hospital at no additional cost, which resulted in her improved health condition. As per the interview, the employee was used to self-medicate in the past, but since enrolling in the HIS program, she has stopped self-medicating and is now visiting the hospital on time for regular check-ups. This implies that self-medication is common among those not enrolled in

HIS. A past study by Dawood *et al* (2017) in Malaysia found that approximately one-third of respondents in their study in Malaysia used past experiences of a similar illness to determine self-medication to adopt using past medication prescription or knowledge, which could be harmful to individuals because the actual cause of the illness may differ from the past cause of illness. Treating a newly diagnosed illness with previous experience or prescription without a new diagnosis could be harmful to one's health.

In the current study interviews, employees stated that HIS is very important for health care because it not only provides access to quality health care at a very affordable rate, but it also reduces huge expenses associated with the cost of health care for individuals and families. According to the interviewees, they only went to HIS hospital for health care during his last illness and did not go anywhere else until he recovered. As found in the current study, some employees seek diagnoses and treatments at hospitals other than those accredited by HIS. Several reasons were revealed during the interview sessions, including the assumption that HIS hospital does not usually administer the most appropriate and effective drugs to enrollees. In the interviews, employees acknowledged awareness of the HIS program, enrollment, and its benefits to users, particularly in terms of reducing immediate expenses, but some employees used another hospital for treatment during their most recent illness out of fear of receiving ineffective drugs from the HIS hospital in which their organisations had enrolled him. This means that some employees prioritized effective health care over financial expense, and are willing to pay to get the best services rather than ineffective cheap or free health care services along the way to seeking health care. In a study conducted among 114 respondents in Zambia, Daka, Mugala, and Makowa (2021) found that the majority of respondents used hospitals and clinics as their first place of treatment for health care, with the explanation that a good number of the respondents desired professional health care services.

The study found that on the percentage distribution of respondents based on the number of healthcare visits made during their most recent illness, the majority of respondents (70.6 %) visited one health care provider during their most recent illness. This was followed by 22.8 percent who saw two health care providers during their most recent illness. This means that respondents were more likely to visit a single health care provider, most likely due to their enrollment in a health insurance scheme program. However, knowing where to go for treatment will help us solve this problem as we

continue our investigation into first place of visit for treatment at last illness. At this point, it is worth noting that the number of health care providers visited here refers to all types of health care providers, including modern, traditional, and faith-based health care providers. The study found that on the distribution of respondents by all places visited for health care or treatment during their most recent/last illness, more than half of the respondents (69.5 %) visited hospitals/clinics where they were enrolled in a health insurance scheme during their most recent illness. This was followed by 20.8 percent of respondents who visited hospitals/clinics despite not being enrolled in a health insurance scheme during their most recent illness. A few (4.1 %) of those sampled went to a patent medicine store/pharmacy to get medications for their most recent illness. This implies that health insurance scheme adoption by organisations and employee enrollment in the scheme influence employees' places of visit when they become ill. An earlier study conducted by Onyemaechi and Ezenwaka's (2022) in Anambra state, Nigeria found that participation in HIS reduced utilisation of health care from medicine vendors as first choice of provider from 46% to 8.1%, indicating that participation in HIS directly or indirectly discourages utilisation of health care services from non-health facilities.

The qualitative interviews findings also revealed that some of the employees did not go to just one place for health care. Some went to both modern and traditional medical facilities. An employee interview revealed that when she discovered she was sick, she did not go to the hospital right away. According to the employee, she first went to a prayer house because she believed her illness was spiritual and required spiritual care. She was suffering from malaria and severe body aches. Malaria is a common tropical disease in Africa, and it is especially prevalent in Nigeria due to the prevalence of mosquitoes and inadequate preventive measures, which spread the infection from person to person. When the illness persisted, the employee realized she needed medical attention, according to the interviewee. As a result, she left the prayer house and went to the hospital, where she was diagnosed with malaria. Despite the fact that she was diagnosed and treated for the diseases for free, the employee stated that she had taken two paths to health care. She cited proximity and crowding at the hospital facility as factors discouraging her from using HIS hospital as her first place or primary source of health care. Daka *et al.* (2021) discovered that the determinants of health treatment pathways are heavily influenced by individual actions and situations, such as the belief that they require care and that care is available, accessible, and can be obtained.

Interviews with some employees revealed that self-medication and over-the-counter drugs were also popular among employees, as some of them would use self-medication first before visiting the hospital for a proper check-up if the self-medication did not work. An interview with one of the employees who was sick with typhoid revealed that she first went to a chemist store to buy paracetamol and other medications. However, after using the self-recommended drugs for several days with no improvement, the patient decided to go to the hospital for a proper check-up. The employee was sick with typhoid fever. Interaction with the employee revealed that she had become accustomed to self-medication as a result of the high cost of hospital-based medical treatment even before enrolling in the HIS program. As disclosed in the interviews, self-medication does not include laboratory testing to confirm a specific infection, so employees spend days treating infections or diseases based on assumptions, which is dangerous because they do not know the exact cause of their illness and what to treat. In an earlier study, Dawood *et al*. (2017) found that 20.9% of 888 respondents in Malaysia use self-medication as their first point of health seeking when they are ill. Approximately 11% of respondents stated that they usually consult pharmacists at pharmacy shops for medication as their first point of contact when they are sick.

The study found that on the percentage distribution of respondents by first and subsequent places of health care visited in the order of such visits to show pathways at last illness, more than 30% of respondents visited more than one place for health care treatment during their most recent illness. About 54 percent of the 70.6 percent of respondents who visited only one place for health care during their most recent illness visited hospitals, while 16.1 percent visited pharmacies. In one case, 13.2 percent of respondents went from HIS hospital to traditional, faith/religious centers, pharmacy, and finally home/self-treatment. This occurs despite the fact that employee organisations have implemented a health insurance plan for their employees. This means that while enrolling employees in a health insurance scheme may improve hospital medical check-ups, it does not preclude all employees from accessing other forms of health care, such as traditional, faith-based, and self-treatment. In an earlier study, Mbuthia *et al.* (2018) found that participants in a study of 61 TB patients in Kenya used pluralist pathways to health seeking for disease treatment, which included accessing health care services from both traditional healers and herbalists, as well as public and private health care

professionals. Mbuthia *et al* (2018) realised that there was no single pathway to health seeking among the participants in their qualitative study in Kenya.

In-depth interviews with employees revealed that, despite being enrolled in HIS, some employees in the private sector usually take two or more paths to seek healthcare. One of the interviews with a service industry employee revealed that he had taken three paths to health seeking during his last illness. According to the interview, after realizing he was suffering from toothache, he went to a chemist shop to purchase pain relievers. Because the drugs did not work, he assumed that it was his high sugar consumption that was causing his tooth pain, so he went to a herbal medicine provider who gave him a mixture of herbs to reduce his high sugar level and pain. Because the herb did not work, the employee went to an HIS hospital for diagnosis and treatment. The employee's toothache was relieved by medicine from the HIS hospital. The interaction revealed that incorrect assumptions about the actual cause of a disease or health condition were a major factor in people not seeking health care directly from HIS hospital when they first became ill. According to the study conducted in Malaysia by Dawood *et al* (2017), self-medication was associated with ethnicity, education, living alone, and having a self-care orientation. The study by Dawood *et al*. (2017) in Malaysia revealed that treatment pathways existed among the respondents because most of the respondents sought health care from multiple sources, but it did not research the respondents' pathways to highlight the exact stages adopted in health seeking.

Interview with employees who had taken two routes to seek health care revealed that the assumption that HIS hospitals would provide substandard drugs to HIS enrollees has discouraged employees from seeking health care from HIS hospitals. The interview sessions revealed that some employees believe they can get better drugs for their health care by buying them directly from a pharmacy or chemist shop. Employees suggest that HIS should broaden its scope of coverage, accredit more hospitals, administer effective drugs, and become less stressful in order to increase employee patronage.

The study found that on the percentage distribution of respondents by length of stay at first place of visit before seeking another source of care during their most recent illness, more than half of the respondents (52.2 %) spent less than three days at the first place of visit before seeking another source of care during their most recent illness. This was followed by 31.6 percent who spent 3-7 days at the first place of visit before seeking

another source of care during their last illness. This means that a large number of patients rarely have the patience to follow up on medications at a specific medical centre before seeking alternative care for their previous illness. This also implies that some employees are unsure of receiving treatment from the health insurance hospital in which they are enrolled, resulting in a proclivity to seek alternatives, which they may combine or directly move into adopting in their search for remedies to their illness. An earlier study conducted in Kenya by Mbuthia *et al* (2018) discovered that patients' pathways to health care change in a variety of directions over time. Mbuthia *et al* (2018) found that because patients were unsure of the exact cause and condition of their illness, they were more likely to self-medicate as a first step toward health seeking by purchasing drugs from chemist shops.

The study found that on the percentage distribution of respondents based on their reasons for selecting the first place of care for treatment of their most recent illness, the majority of respondents (37.0 %) chose their first place of care for treatment of their most recent illness because the bill was affordable. This was followed by 23.0 percent of those who chose their first place of care for treatment of their most recent illness due to quality assurance. Furthermore, 19.0 percent of respondents chose their first place of care for treatment of their most recent illness due to proximity. In other words, the three most important reasons for employees to choose a first place of care for treatment of their most recent illness were: affordability (37 %), quality assurance (23 %), and proximity (19%). This also implies that employees are rational beings who frequently conduct cost benefit analyses before carrying out actions or making decisions. Employees are more likely to use a health care facility if the cost of accessing health care in that facility is low, they are confident of receiving quality service from the facility, and the facility is close to their place of residence. An earlier study in Zambia by Daka *et al*. (2021) observed that affordability is critical in determining the initial and subsequent health care treatment pathways.

Key informant interviews with HMOs and HIS officials were also conducted in response to the reasons why some private employees enrolled in the HIS program chose other forms of health care system over HIS. Interactions with these officials revealed that they are aware that some employees may prefer other forms of health care over HIS, but they are optimistic that the HIS is doing its best to provide affordable, effective, and

widereaching health care services to employees in both the public and private sectors, and that they are also making additional efforts to improve services to satisfy employees. Interviews with the Directors of the Health Insurance Scheme revealed that most employees, particularly federal government employees, view the HIS program as an important avenue for accessing health care. The directors also stated that efforts are being made to make HIS enrollment mandatory for all Nigerians, as well as for all private organisations to enroll employees. According to the directors, just as with federal government employees, if all private organisations enroll their employees in the scheme, more employees will be forced to use it for health care. Mbuthia *et al.* (2018) in their research found that some private hospitals/clinics, particularly those in rural areas, did not have well-equipped laboratories to perform diagnoses, and instead of referring patients to more competent health facilities, they retained and delayed patients due to the financial benefits they hoped to obtain from the patients.

The study found that on the chi-square distribution of employees enrolled in a health insurance scheme by treatment pathways at their most recent illness, as determined by selected variables, the results show that age (p-value=0.001), marital status (pvalue=0.016), number of children (p-value=0.008), sex (p-value=0.001), education (pvalue=0.003), religion (p-value=0.004), grade level (p-value=0.041), and average monthly income (p-value=0.002) significantly influenced treatment pathways of health insurance scheme enrollees during their most recent illness. For example, the use of combined health-seeking pathways was highest among respondents aged 50 and above (49.5 %), while the use of the HIS pathway alone was highest among respondents aged 29 and below (40.2%). The use of the HIS pathway alone was most common among married respondents (37.2%). In contrast, a study conducted in Malaysia by Dawood *et al* (2017) among 888 respondents found that there was no significant relationship between gender, health condition, and seeking health care from physicians when sick. Their research found that elderly participants who had already retired from work were more likely than active service workers to seek health care from medical practitioners.

As the number of children grows, so does the use of combined pathways. For example, respondents with 5 or more children (48.3 %) used combined pathways the most, while respondents with no child used the least (27.5%). Respondents with no children (43.3 %) used only the HIS pathway the most, while those with 5 or more children used it the

least (23.2%). Females were the most likely to use combined pathways (57.0%). Respondents with tertiary education were the most likely to use the HIS pathway alone (55.2%). Traditional worshipers were the most likely to use combined pathways (35.4%), while Christian worshipers were the most likely to use HIS pathway alone (58.8%). Junior staff (42.6%) used combined pathways more than senior staff (31.0%), while the use of HIS pathway alone was higher among senior staff (38.0%). The use of combined pathways was highest among respondents with less than N31,000 average monthly income (50.0%), while the use of HIS pathway alone was highest among those with N51,000-N99,999 average monthly income (49.5%). Nabieva (2019) views the effect of treatment pathways on health seeking behaviour as a decision-making process facilitated by societal norms.

The results of a multinomial logistic regression for employees enrolled in a health insurance scheme by treatment pathways at the time of the most recent illness, as well as selected socio-demographic variables which the analysis was conducted and presented separately for 'Used combined pathways vs. Not used HIS pathway' and 'Used HIS pathway only vs. Not used HIS pathway' revealed that on using combined treatment pathways, the study found that there is a significant relationship between age and combined treatment pathways at last illness among respondents enrolled in a health insurance scheme, with respondents aged 30-39 and 50 and above being 4.5 and 5.0 times more likely to use combined treatment pathways, respectively, than those aged 29 and below. Married respondents were 2.5 times more likely than single respondents to use combined treatment pathways. Respondents with 1-2, 3-4, and 5 and more children were 3.9, 5.4, and 6.2 times more likely to use combined treatment pathways, respectively, than those without a child. Senior staff were 33% less likely than junior staff to use combined treatment pathways. Respondents with average monthly incomes of N31,000-N50,999 and N100,000 and above were 43 percent and 62 percent less likely to use combined treatment pathways, respectively, than respondents with less than N31,000 average monthly income.

On using HIS treatment pathway only, the results of the logistic regression showed that, there is a significant relationship between age and use of HIS treatment pathway only at last illness amongst respondents enrolled in health insurance scheme, with respondents aged 40-49 and 50 and above being 31% and 66% less likely to use HIS treatment

pathway alone compared to those aged 29 and below. When compared to single respondents, married respondents were 44% less likely to use the HIS treatment pathway alone. Respondents with 3-4 and 5 or more children were 33% and 62% less likely, respectively, to use the HIS treatment pathway alone than respondents without a child. Respondents with tertiary education were 2.0 times more likely than respondents without tertiary education to use the HIS treatment pathway alone. Senior staffs were 2.5 times more likely than junior staffs to use the HIS treatment pathway alone. Respondents with an average monthly income of N100,000 or higher were 2.8 times more likely to use the HIS treatment pathway alone than respondents with an average monthly income of less than N31,000. The qualitative study by Mbuthia *et al* (2018) conducted in Kenya among 61 participants found that the determinants of treatment pathways among patients are at individual, socio-cultural and structural levels.

On gender differentials in the adoption of health insurance scheme among employees in selected private organisations, the study found on the chi-square distribution of respondents' health insurance scheme adoption by male and female gender by selected variables, the results showed that males (62.9 %) have a higher intention than females (53.7 %) to enroll oneself and family in HIS if the organisation refuses to adopt HIS in the future. Females are more likely than males to seek medical attention after enrolling in a health insurance plan (52.6%). Females (54.9%) have a more positive perception of organisations adopting health insurance schemes than males (45.4%). However, males (83.4 %) prefer health insurance schemes to paying for medical treatment when they are sick over females (70.8%). Females (60.6 %) have a better general health status than males after their organisation adopted a health insurance scheme (47.1%). In contrast, an earlier study by Govender and Penn-Kekana (2010) on gender health discovered that women seek health faster than men.

The study found that on the percentage distribution of employee respondents who utilise a health insurance plan by male and female gender, the findings showed that the majority of males (90.2%) and females (87.3%) had used health insurance scheme hospitals, with males utilising more than females by 2.9 percent. This means that nearly all male and female respondents used health insurance during their current employment years. The findings of qualitative interviews agree with the quantitative findings in that there is no clear cut on gender inequality in the enrollment of private sector employees on HIS.

Interviews with employees, HMO staff, and health care providers yielded similar results, with all stating that there are no gender biased policies in the HIS program. According to an interview with business managers in one of the manufacturing industries, there are no policies on gender differentials in the adoption of HIS in private organisations, and no special attention is given to staff members based on their gender. The interview sessions revealed that the only differences in enrolment among employees are for a few management staff members, who could be males or females, who have a higher health care plan than the general staff. Similarly, Daka *et al* (2021)'s study of 114 Zambian samples discovered no significant difference between male and female utilisation of professional health care.

The study found that there is no discrimination based on family members of employees who are enrolled in the scheme. In-depth interviews revealed that the proportion of male and female employees utilizing HIS for their health care may differ. However, the interviews revealed that no policy supporting gender discrimination exists in the organisations studied, which could encourage one gender or discourage another for any reason. Interaction with the interviewees revealed that there is no gender bias policy in the operation of HIS or in the delivery of services. The interview revealed that all issues pertaining to the operation of the HIS are governed by established rules and regulations that do not favour one gender over the other. The World Health Organisation (2014) discovered that societal norms grant men numerous advantages over women. However, men and women are shaped to conform to gender-specific norms, which has an impact on their health.

The study found that in an independent t-test summary showing the differences between male and female employee gender on the utilisation of health insurance scheme to advance the statistical analysis in order to determine if there will be any differences in the utilisation of HIS by male and female gender, the results showed that there is a significant difference in the utilisation of health insurance schemes between the male and female genders. Female employees utilised the health insurance scheme significantly more than male employees (df = 431, t=6.382, P0.05). Male employees received a mean score of (22.64), while female employees received a mean score of (24.72). In contrast, a study conducted in Malaysia by Dawood *et al* (2017) among 888

respondents, found that there was no significant relationship between gender, health condition, and seeking health care from physicians when sick.

Interviews with HMO officials and health care providers provided explanations for the quantitative findings on the mean differences in male and female employees' use of HIS for health care. Key informant responses revealed that the scheme is utilised by a large number of men and women. Women and children, on the other hand, may use HIS services more than men because women use HIS services during pregnancy, delivery, and post-delivery. Their newborns and under-five children, who were usually accompanied by their mother, benefited from HIS as well. The interviews also revealed that mothers and children may be given priority over men during hospital visits, most likely due to their vulnerability. In contrast, Mpuuga and Eshete's (2022) study in Uganda found no significant difference in male and female participants' willingness or utilisation of HIS services. Mpuuga and Eshete's (2022) study discovered a significant but non-linear relationship between age and HIS utilisation.

The interviews with health care providers revealed that childbearing could be a good reason for women to use the scheme more than men for their health care as part of the justification for women utilising the scheme more than men. However, it was stated that everyone, including the government, health care providers, HMOs, and male and female individuals, should be involved in designing a workable framework that encourages high utilisation of medical experts' health care in order to achieve a healthy environment and low mortality rates for men and women notwithstanding their socioeconomic differences. In view of this, Mulenga *et al.* (2021) found that men and women living in the wealthiest households were more likely to use health insurance than those living in poor households in Zambia. Wang, Temsah, and Mallick (2013) discovered similar results in their study on health insurance enrollment in developing countries. Mulenga *et al.* (2021) observed in Zambia that higher educational levels for both men and women increase the likelihood of using health insurance. According to the Mulenga *et al* (2021) study in Zambia, education provides both men and women with exposure, appropriate information, and higher paid job opportunities, putting them at a higher risk of using health insurance than those without education.

On the challenges and experiences of employers in the adoption of health insurance scheme in the selected private organisations, the study found that in the same way that

employees have experiences and challenges that run through influencing factors and pathways to health seeking behaviours, employers have experiences and challenges in providing HIS to employees for effective health care. Interactions with some of the employers and management revealed that, in their experience, enrolling employees in the HIS program increases productivity because employees are motivated when they know that they and their dependents are enrolled to receive free or low-cost health care services through the health insurance scheme. An earlier study conducted by Preker, Lindner, Chernichovsky and Schellekens (2013) found that health insurance coverage provides access to affordable financial protection and health services, as well as compensation for lost productivity due to illness.

Employers' experiences and challenges include payment of premiums, unfair treatment of staff in some HIS hospitals, abuse of the scheme by some employees, sudden stoppage of treatment by HMOs or health care providers, complex bureaucratic structure of the system, and omission of some staff names or family members names from the approved list sent to health care providers by HMOs for health care. Other challenges and experiences include the sudden exclusion of some illnesses from the scheme, employers' inability to pay their capitation on time, employees' inability to access certain hospitals due to their chosen plan, and some employees' loss of HMO cards, among others. In Ghana, Akweongo *et al* (2021) found that the adoption of a manual method of processing enrollees and health care providers' information contributed significantly to errors on claims reports, delaying reimbursement and causing delays in services delivered to HIS users.

Interviewees, for example, revealed that premium payment is a challenge for employers. According to the interviews, it is typically difficult for the organisation to raise large sums of money to pay for their employees' health care services. As per the interviewees, sometimes money is not available and the organisation has to struggle with decisions to take funds meant for other issues to sort employees' health care charges to cover up so that employees' health care services at HIS hospitals do not negatively affect their productivity. Onyedibe *et al*, (2013) found that in Nigeria, there are numerous methods for financing healthcare, including fee-for-service, loans, grants, social insurance, and many others. Payment for services is the most fundamental form of health care

financing. A fixed fee for service is commonly used by government-run health care facilities to raise funds and avoid unnecessary healthcare requests.

Another issue that employers face is that some employees take advantage of the scheme. According to interviews with the employers at some of the organisations studied, some employees abuse the scheme. According to the interviewees, some employees will go to their accredited HIS hospital even if they are not sick so that their organisation can spend money on their behalf. Some employees bring other people who are not registered as family members deserving of care with them to receive medication at the expense of the organisations that pay the premium. As disclosed by the interviewees, some employees will pretend to be sick in order to obtain medication for a distant relative who is ill but not enrolled in the HIS program. A study conducted in Ethiopia by Merga *et al* (2022) discovered that having children under the age of five, the gender and age of household heads, family size, wealth index, and place of residence all influence HIS utilisation.

Interviews with some of the regional managers revealed that some employers frequently faced the challenge of abruptly discontinuing treatment without regard for the organisation's efforts or personality. According to the interviewees, HMOs usually do not consider organisations when they are unable to subscribe or pay their premium on time. Rather, HMOs frequently prevent employers and employees from obtaining health care when their organisation has not paid premium. A study conducted in Ghana by Akweongo *et al* (2021) found that one of the major challenges confronting the smooth operation of the HIS in the country is the delay in reimbursement of claims. The study's health care providers complain that claims reimbursement delays are a major impediment to providing effective services to HIS clients at the health facility level.

Employers also identified the issue of unhelpful government as a challenge. According to the employers, the government at the federal, state, and local levels is not helpful because the government has not played critical roles in enabling employers to pay employees' premiums in order to support citizens in continuing to benefit from HIS services. Although, as some of the employers asserted, private organisations are nongovernmental bodies, the government can still assist in reducing the amount they are expected to pay because private organisations contribute quotas to reducing unemployment in the country. According to what was revealed as part of experience

during the interviews, the general experience of employers is that HIS is a type of motivation and welfare for the workers. Enrolling employees in HIS, according to employers, helps to reduce fraudulent medical claims by some workers. It also prevents employees from using a lack of funds for medical care as an excuse for poor performance at work as well as increase utilisation of HIS. Solanke (2021) found that only 3% of Nigerian women of reproductive age have health insurance, based on a national population-based study of 41,821 Nigerian women.

As part of the experience sharing, some employers are sceptical of directly attributing employee productivity to HIS adoption because other factors may be influencing the process. However, during the interview sessions, it was revealed that one of the challenges that employers faced was the frequent complaint from employees that the HIS program does not cover some of the illnesses that the employees' enrolment plan should cover. According to the employers, covering more plans for employees means more expenses for the employers, as new budgets must be designed at the employers' expense. Similarly, the interview discussions revealed that employers have had fruitful relationships with HMOs for many years, depending on the personality of the HMOs. Interactions with the regional managers during key informant interviews revealed that the regulations guiding the HIS that could influence challenges to employers and employees include a limited benefit package, inaccessibility of some hospitals due to the chosen plan, limitations due to length of stay in the hospital, and limitations to certain drugs and tests. The HIS packages are somewhat fixed and not as flexible in terms of package selection, as some employers and employees may prefer to select favorites without being willing to pay more. On that note, the challenge becomes that employers must select from the available HIS enrolment plans for their employees.

Interview with another regional managers revealed some of the challenges employers face when adopting and enrolling employees in the HIS program. According to the interviews, the loss of an HMO card by employees or the employer itself could be a challenge in the scheme, affecting employers directly or indirectly because it may necessitate the attention and time of the employer. Another issue that employers and employees may face, as revealed during the interview, is when hospitals refuse to treat employees due to unresolved issues with HMOs. When this happens, employees may contact employers to draw their attention to it without knowing if the employers have

money set aside or are experiencing difficulties in settling the HMOs. The further found that that another challenge faced by employers is that if employees are not well cared for in hospitals, employers may be disturbed by employee complaints. Another issue that employers face is that negative experiences can occur when employees' or dependents' names do not appear on the HMO list. Employers' attention may be drawn to this point as well. According to the study conducted in Nigeria, by Onyemaechi and Ezenwaka (2022), the outcome of health care utilisation from health facilities strongly determined employees and dependents continuation of health care seeking from formal health facilities (i.e. hospitals and clinics), as some employees were willing to forego the benefit of affordable health care as HIS enrollees to seek health care from alternative sources if they could get quality services from HIS hospitals/clinics.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The study examined the adoption of health insurance scheme and health-seeking behaviour of employees in private organisations in Enugu State, Nigeria. Specific attention was given to investigating the extent to which health insurance scheme is utilised by employees, examining the influence of the adoption of health insurance scheme on health-seeking behaviour of employees, assessing the treatment pathways of employees utilising health insurance scheme, examining gender differentials in the adoption of health insurance scheme among employees, and examining the challenges and experiences of employers in the adoption of health insurance scheme in the selected private organisations. More than half of the employees sampled were between the ages of 30 and 49. The vast majority of the employees were married. Over 70 per cent of respondents had at least one child. Over 77.4 per cent of the respondents have a tertiary education, and majority of respondents were Christians.

The study found that nearly half of the respondents partially utilised health insurance scheme. Thirty-two per cent of the respondents adequately utilised health insurance scheme, while 22 percent did not utilise health insurance scheme at all. As a whole, over 70% of employees in the private sector who have adopted health insurance scheme utilised the scheme to address health needs. The employees who used health care outside of the scheme were expected to pay for the extra cost.

More than half of the respondents did not regularly use health insurance scheme because they believed they were not frequently sick. Employees were less likely to use health insurance when they believe the hospital/clinic is not providing good or quality care. Most employers were excited about the scheme because it addresses the health needs of their employees, resulting in a healthier workforce and increased productivity in the

long run. Respondents aged 40-49 and 50 and above were 2.6 and 4.9 times more likely to adequately utilise their health insurance scheme than those aged 29 and below. Married respondents were 2.6 times more likely than single respondents to adequately utilise their health insurance scheme. Respondents with 3-4 children and 5 or more children were 3.8 and 3.9 times more likely, respectively, to adequately utilise health insurance scheme than those without a child. Respondents with tertiary education were 3.5 times more likely than those without tertiary education to utilise health insurance scheme adequately.

Health seeking behaviour of respondents between the ages of 30-49 were 89 percent less likely to be influenced by the adoption of a health insurance scheme than those between the ages of 18 and 29. In contrast, health seeking behaviour of respondents aged 50 and older were 3.5 times more likely to be influenced by the adoption of a health insurance scheme than those aged 18 to 29 years. When compared to single respondents, health seeking behaviour of married respondents were 4.1 times more likely to be influenced by the adoption of a health insurance scheme. Health seeking behaviour of respondents with 3-4 and 5 or more children were 2.5 and 3.4 times more likely to be influenced by the adoption of a health insurance scheme, respectively, than those without a child. When compared to male respondents, health seeking behaviour of female respondents were 1.9 times more likely to be influenced by the adoption of a health insurance scheme. Respondents with tertiary education were 7.2 times more likely to be influenced by the adoption of a health insurance scheme than those with less than tertiary education. Senior employees were 1.6 times more likely than junior employees to be influenced by the adoption of a health insurance scheme. Health seeking behaviour of respondents with average monthly incomes of N31,000-N50,999, N51,000-N99,999, and N100,000 and above were 2.8, 3.8, and 4.0 times more likely to be influenced by the adoption of a health insurance scheme than those with less than N31,000, respectively.

More than half of the respondents (52.2 %) spent less than three days at the first place of visit before seeking another source of care during their most recent illness. The three most important reasons for employees to choose a first place of care for treatment of their most recent illness were: affordability (37 %), quality assurance (23 %), and proximity (19%). The study found that there is a significant relationship between age and use of HIS treatment pathway only at last illness amongst respondents enrolled in

health insurance scheme, with respondents aged 40-49 and 50 and above being 31% and 66% less likely to use HIS treatment pathway alone compared to those aged 29 and below. When compared to single respondents, married respondents were 44% less likely to use the HIS treatment pathway alone. Respondents with 3-4 and 5 or more children were 33% and 62% less likely, respectively, to use the HIS treatment pathway alone than respondents without a child. Respondents with tertiary education were 2.0 times more likely than respondents without tertiary education to use the HIS treatment pathway alone. Senior staffs were 2.5 times more likely than junior staffs to use the HIS treatment pathway alone. Respondents with an average monthly income of N100, 000 or higher were 2.8 times more likely to use the HIS treatment pathway alone than respondents with an average monthly income of less than N31, 000.

The results showed that males (62.9 %) have a higher intention than females (53.7 %) to enrol oneself and family in HIS if the organisation refuses to adopt HIS in the future. Females are more likely than males to seek medical attention after enrolling in a health insurance scheme plan (52.6%). The majority of males (90.2%) and females (87.3%) had used health insurance scheme hospitals, with males utilising more than females by 2.9 percent. In advanced analysis, the results showed that there is a significant difference in the utilisation of health insurance scheme between the male and female genders. Female employees utilised the health insurance scheme significantly more than male employees (df = 431, t=6.382, P0.05). Male employees received a mean score of (22.64), while female employees received a mean score of (24.72).

Employers' experiences and challenges include payment of premiums, unfair treatment of staff in some HIS hospitals, abuse of the scheme by some employees, sudden stoppage of treatment by HMOs or health care providers, complex bureaucratic structure of the system, and omission of some staff names or family members names from the approved list sent to health care providers by HMOs for health care. Other challenges and experiences include the sudden exclusion of some illnesses from the scheme, employers' inability to pay their capitation on time, employees' inability to access certain hospitals due to their chosen plan, and some employees' loss of HMO cards, among others. As part of the experience sharing, some employers are sceptical of directly attributing employee productivity to HIS adoption because other factors may be influencing the process. Another challenge faced by employers is that if employees are

not well cared for in hospitals, employers may be disturbed by employee complaints. Employers also face negative experiences when employees' or dependents' names do not appear on the HMO list. Employers' attention may be drawn to this point as well.

5.2 Conclusion

Over 70% of private-sector employees who have adopted health-care plans used the plan to meet their health-care needs. Employees who used health care outside of the plan were expected to pay the difference, yet some employees utilised other pathways of care. More than half of the respondents (69.4%) did not use health insurance on a regular basis because they believed they were not frequently sick. When employees believe the hospital/clinic is not providing good or quality care, they are less likely to use health insurance scheme.

Most employers were enthusiastic about the programme because it addressed their employees' health needs, resulting in a healthier workforce and increased productivity in the long run. Respondents aged 40-49 and 50 and above were 2.6 and 4.9 times more likely, respectively, to use their health insurance scheme adequately than those aged 29 and below 29 years. Married respondents were 2.6 times more likely than single respondents to use their health insurance scheme appropriately. Respondents with 3-4 children and 5 or more children were 3.8 and 3.9 times more likely to use the health insurance scheme adequately than those without a child, respectively. Respondents with tertiary education were 3.5 times more likely to use health insurance schemes adequately than those without tertiary education.

The adoption of a health insurance scheme influenced the health seeking behaviour of respondents aged 50 and older 3.5 times more than those aged 18 to 29 years. When compared to single respondents, married respondents' health seeking behaviour was 4.1 times more likely to be influenced by the adoption of a health insurance scheme. Respondents with 3-4 and 5 or more children were 2.5 and 3.4 times more likely, respectively, to be influenced by the adoption of a health insurance scheme than those without a child. During their most recent illness, more than half of the respondents (52.2%) spent less than three days at the first place of visit before seeking another source of care. Employees chose a first place of care for treatment of their most recent illness

for three reasons: affordability (37%), quality assurance (23%), and proximity (19%). Senior employees were 2.5 times more likely than junior employees to use the HIS treatment pathway exclusively. Respondents with an average monthly income of N100,000 or more were 2.8 times more likely to use the HIS treatment pathway alone than those with less than N31,000.

The utilisation of health insurance scheme differs significantly between the male and female genders. Female workers used the health insurance scheme significantly more than male workers. Payment of premiums, unfair treatment of staff in some HIS hospitals, abuse of the scheme by some employees, abrupt cessation of treatment by HMOs or health care providers, complex bureaucratic structure of the system, and omission of some staff names or family members names from the approved list sent to health care providers by HMOs for health care are all challenges faced by employers. Other challenges and experiences include, among others, the sudden exclusion of certain illnesses from the scheme, employers' inability to pay their capitation on time, employees' inability to access certain hospitals due to their chosen plan, and some employees' loss of HMO cards.

5.3 Limitation of the Study

The study findings cannot be generalised as it covers only the South Eastern Geo-Political zone of the country. Also, there was a limitation on the study's cross-sectional design. This prevented respondents from being followed up to obtain longitudinal information on behavioural changes over time regarding HIS utilisation and health seeking behaviour. Nonetheless, the limitations and insights brought to light by this research is very relevant to policy development and implementation.

5.4 Recommendations

Following the study’s findings, these recommendations are made for policymakers, private organisations, and the general public.

1. There is an urgent need to raise awareness about the benefits of utilising HIS among employees. The findings revealed that among the employees enrolled in the scheme,

less than 50% adequately utilised the scheme, 22% did not utilise HIS. Among these percentage, some stated their reason of not utilising as not being sick whereas preventive medicine is key to good health. Also, employees at the senior level position whose monthly earning is higher than those at the lower level still utilises more. Meanwhile, the programme is meant to serve the economically poor. There is also the need to sensitise the private sector employers about the importance of adopting HIS for their employees. This is important because if the majority of private sector employers in Enugu State in particular and Nigeria adopts the scheme for their ever-increasing number of employees, Nigeria will arguably be on the right track towards achieving universal health coverage campaign which is one of the major targets of the health insurance scheme.

2. Genuine trust must be established between employers, employees, health insurance managers, and health care providers. This is noteworthy because some employees are still confused about how the scheme works and believe that their employer's insurance managers or health care providers are exploiting their vulnerability as employees to extort financial benefits in the name of providing them with health insurance scheme. Employers should inform employees, particularly newly hired ones, on a regular basis about how the premium for their health insurance scheme is made. This includes informing employees of the percentage of the total premium paid by the employer as well as the contribution or percentage deducted from the employee's salary, as some employees are unaware of these charges. When the employer pays the entire premium without deducting anything from the employee's salary, the employee must also be informed. This is because some employees believe that the benefit of enrolling in health insurance does not compensate for the charges deducted from their pay for insurance purposes.
3. Relationship between health workers and patients (employees) must be greatly improved, as some employees have refused to visit some HIS-affiliated hospitals and clinics for fear of being treated unfairly by health care providers. Some health care workers are unfriendly and treat some employees as if they are less human. Every human being deserves to be treated well, not simply because they are human beings, but because they have the right to be treated as such. All health care providers must respect and uphold this right.
4. Delays at health-care facilities must be eliminated or reduced to the bare minimum, as the majority of study participants complain of delays in accessing health-care services. One of the main reasons employees switch from one health care facility to

another is because of delay. Fear of being delayed in a health facility has also caused some respondents to avoid going to HIS hospitals and instead engage in self-medication or seek medication/treatment from non-professionals.

5. The quality of services provided by HIS-registered health facilities must be improved and guaranteed to be the best among other types of health care services. This is due to rumours spread by respondents that some of the drugs and medications administered to patients at HIS-registered hospitals are inferior and ineffective. It is necessary not only to improve and maintain quality services at HIS hospitals, but also to clear the air of this rumour, which has a strong way of discouraging employees from seeking health care at HIS hospitals.
6. One of the major challenges to the HIS's smooth operation has been the insurance managers' delays in reimbursing claims to health care providers. According to the study, health care provider's claims reimbursement delays are a significant impediment to providing effective services to HIS clients at the health facility level. According to the study, using a manual method of processing enrolee and health care provider information contributed significantly to claims report errors, delaying reimbursement and causing delays in services delivered to HIS users. This must be improved and replaced with computerised processing.
7. Referral practises among health care providers must be improved and encouraged. This is because some health facilities, particularly private hospitals/clinics, lack well-equipped laboratories to perform certain diagnoses, and instead of referring patients to more competent health facilities, they retain and delay patients in order to gain financial benefits from the patients. To improve trust among enrolees, this must be completely stopped.
8. On the vulnerable group, the finding discovered that few women (22%) utilised HIS pathways only. This shows that many women are yet to understand the benefits of utilising HIS adequately despite the fact that most of these women were married and had children. They are also at the reproductive age, yet they could not understand the need to adequately utilise health insurance scheme. Also the number of women with 3-4 children utilised other pathways of care more than HIS pathway. This call for a discourse among health stakeholders as the scheme is majorly meant for the vulnerable group (women and children). Based on this, there is an urgent need for the HIS stakeholders to sensitise women and enlighten them about the benefits of utilising HIS. Considering the number of women in the country, if they are not

utilising HIS adequately, definitely, it will affect their health status and limit them from achieving the global goal 2030 of fulfilling SDG3 agenda through UHC.

9. The peculiarity of the private sector employer should be considered in policy making. Following the new act of 2022 on HIS, it is not enough to make HIS compulsory for the private sector, rather, there should be an adequate process of fund raising which may involve seeking help from the richer citizens, financial institutions like microfinance banks and international organisations. This is due to the fact that the whole idea of insurance is pooling resources together to serve the poorer individuals. This recommendation is based on the research finding from employers" lack of fund in enrolling their employees for HIS. When employees are enrolled, private organisations in Enugu State and Nigeria as a whole will contribute their quota towards achieving the UHC campaign.

5.5 Contributions to Knowledge

Non-use of a health insurance scheme plan may result in financial hardship during times of medical need, especially if the procedure is costly. It can also push an employee into poverty as a result of out-of-pocket expenses. Previous research on health insurance scheme utilisation has primarily focused on issues concerning the scheme's impact, review, expansion, awareness, and quality. However, little attention has been paid to investigating the relationship between health insurance scheme adoption and health-seeking behaviours of employees in the private sector, particularly in Nigeria, where access to health care is limited. The current study adds to the body of knowledge by examining the influence of health insurance scheme adoption and health-seeking behaviour among employees of private organisations in Enugu State, with special attention paid to assessing the extent to which health insurance schemes are utilised, employee treatment pathways, employee gender differentials in HIS utilisation, and employer challenges and experiences in the adoption of health insurance schemes.

This work fulfilled the World Health Organisation Projection of targeting increased resources on health insurance among low and middle income countries (WHO report, 2013). It is in line with accomplishing WHO stewardship objective of providing financial protection against the cost of ill-health. It is also in line with the new act of 2022, which makes health insurance scheme compulsory for all citizens, including the

private sector. More so, this research geared towards promoting UHC campaign from the angle of private employees' health insurance scheme utilisation.

The researcher intends to use the research findings in creating awareness of the benefits of health insurance scheme through seminars, webinar, and enlightenment campaign at all levels. Also, scholarly articles in reputable journals will be published to promote Universal Health Coverage Campaign sustainability through health insurance scheme adoption and utilisation. Policy briefs would be developed and disseminated to the appropriate quarters for policy action.

5.6 Suggestions for Future Research

Future research on this subject is expected to expand the variables used in the study to a more holistic outcome measure by expanding the study's sample to include employees in private sectors from other states in the federation to have a representative sample for comparison to the current study. Another study could include public sector employees to gain knowledge on the use of HIS among public sector employees at the state level.

The current study is primarily cross-sectional, a longitudinal study could be used to follow up on respondents in order to obtain longitudinal information on behavioural changes over time regarding HIS utilisation and health- seeking behaviour.

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APPENDIX I

Department of Sociology
Faculty of the Social Sciences
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QUESTIONNAIRE FOR RESPONDENTS

My name is Promise STARRIS-ONYEMA, a student of the Department of Sociology, University of Ibadan, Nigeria. I am conducting a research on the topic: **Adoption of Health Insurance Scheme and Health-Seeking Behaviour among Employees of Private Organisations in Enugu State, Nigeria.** This is in partial fulfilment of the award of PhD in the above-mentioned Department. Your consent and cooperation will be appreciated. Your responses will be treated with confidentiality and will be used for academic enquiry only.

Please you are required to answer the following questions honestly. Tick the correct code to your option and give answers to the open-ended questions.

Thank you.

Questionnaire Number: ___ ___ ____

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS

S/N	QUESTION	RESPONSES	CODES
101	How old are you?	…….in years	
102	Name of your organisation	Please specify ……	
103	Work Location	Please specify ……..	
104	Name of HMO in use	Please specify……	
105	Marital status	Single Married Separated/Divorced Widowed Cohabiting	1 2 3 4 5
106	What is your family type?	Monogamous Polygamous	1 2

107	Number of children	0 1-2 3-4 5+	1 2 3 4
108	Sex	Male Female	1 2
109	What is your highest level of education?	No formal Education Primary Secondary Tertiary Others (specify)….	1 2 3 4 5
110	Which Religious group do you belong to?	Christianity Islam Free thinker Traditionalist Other (specify)	1 2 3 4 5
111	What is your grade level?	Junior Staff Senior Staff	1 2
112	What is your average monthly income?	Less than N18,000 N18,000-N30,999 N31,000-N50,999 N51,000-N99,999 N100,000 and Above	1 2 3 4 5

SECTION B: EXTENT OF HEALTH INSURANCE SCHEME UTILISATION BY EMPLOYEES IN SELECTED ORGANISATIONS

201	How often do you get sick?	• Very often • Often • Rarely • Not at all	1 2 3 4

202	Where do you prefer the most for getting treatment when sick?	• Hospitals not using health insurance scheme • Hospitals using health insurance scheme • Traditional medical centres • Faith/Religious centers • Home treatment/self-treatment • Patent medicine stores/Pharmacy	1 2 3 4 5 6
203	What is the reason for your preferred place of medical treatment? **Multiple response allowed**	• Low cost/affordable • Good services • Proximity • Good attitude of care givers • Suggested by family/friends • Compulsory enrollment of health insurance scheme at my organisation • Others, specify	1 2 3 4 5 6 7
204	Are there sicknesses that cannot be cured in Orthodox medical centres using health insurance scheme?	• Yes • No	1 2
205	If yes, what type of sickness cannot be cured in orthodox medical centres using health insurance scheme? **Multiple Response allowed**	• Terminal diseases • Spiritual diseases • Physical diseases • Others, specify……	1 2 3 4
206	How often do you utilise health insurance scheme?	• Very often • Often • Rarely • Not at all	1 2 3 4

207	What is the reason for your level of utilising health insurance scheme? **Multiple Response allowed**	• I am not often sick • I am always sick • I do not like health insurance scheme • My illness cannot be treated adequately in health insurance scheme hospitals • Unnecessary waste of time • I prefer other forms of treatment • Because my organisation enrolled me	1 2 3 4 5 6 7
208	If your organisation refuses to adopt Health insurance scheme in future years, will you enrol for yourself and family?	• Yes • No	1 2
209	If No is your answer, why?	• I feel limited in my choice of health care • They use substandard/cheap drugs • I prefer other forms of health care • I have enough fund to take care of my bills • They waste so much time • Others, specify	1 2 3 4 5 6
210	Under what condition would you seek help for sickness since you got enrolled in health insurance scheme**?**	• Severe • Moderate • Mild	1 2 3
211	Have you ever been prevented from going to hospital due to lack of fund before you got enrolled?	• Yes • No	1 2
212	If yes, what did you do to get well	• I used Patent medicine/pharmacy • I borrowed fund	1 2

		• I used traditional medicine • I self-medicated • I used faith/religious therapy • I was left untreated and the sickness got worst	3 4 5 6

SECTION B: INFLUENCE OF HEALTH INSURANCE SCHEME ADOPTION ON HEALTH-SEEKING BEHAVIOUR

S/N	QUESTION	RESPONSES	CODES
301	How long have you been working in your current organisation?	• Less than one year • 1-5 years • 6- 10 years • 11 years and above	1 2 3 4
302	How do you perceive the adoption of health insurance scheme by organisations?	• Excellent • Good • Fair • Poor • Bad • No opinion	1 2 3 4 5 6
303	Are you aware your organisation has adopted health insurance scheme for the workers?	• Yes • No	1 2
304	Do you prefer health insurance scheme to paying for your health treatment when sick?	• Yes • No	1 2
305	If No why do you prefer paying medical bills from your pocket even when your organisation has adopted health insurance scheme? **Multiple response allowed**	• To have unlimited access to health care facilities • To avoid waste of time	1 2 3 4 5

		• To avoid negative attitude of health insurance scheme professionals • I can afford the payment • Others, specify	
306	Before the adoption of health insurance scheme by your organisation, which other form of health care did you use in times of ill-health?	• Hospitals with health insurance scheme • Hospitals without health insurance scheme • Traditional medical centres • Patent medicine/Pharmacy shops • Faith/Religious centres • Home treatment/Lifestyle • Others, specify……	1 2 3 4 5 6 7
307	Between adoption of health insurance scheme and non-adoption of health insurance scheme, which one do you prefer?	• Adoption of health insurance scheme • Non adoption of health insurance scheme	1 2
308	To what extent have you benefited from health insurance scheme?	• A lot • A little • Not at all • Indifferent	1 2 3
309	How satisfied are you with the health insurance scheme services available to you?	• Not satisfied • A little satisfied • Undecided • Satisfied • Very satisfied	1 2 3 4 5
310	Which area of care are you not satisfied with health insurance scheme?	• Waste of Time • Giving cheap and ineffective drugs	1 2 3

		• Choice of accredited hospitals • Uncovered treatment options • During emergency period • Others, specify	4 5 6
311	Before your organisation adopted health insurance scheme, how was your productivity level?	• High • Moderate • Low	1 2 3
312	Now that your organisation has health insurance scheme, how is your productivity level?	• High • Moderate • Low	1 2 3
313	How can you rate your general health status before your organisation adopted health insurance scheme?	• High • Moderate • Low	1 2 3
314	How can you rate your health status now that your organisation adopted health insurance scheme?	• High • Moderate • Low	1 2 3
315	Do you want the government to fully implement health insurance scheme policy and make it mandatory for every organisationin Nigeria?	• Yes • No	1 2

SECTION C: TREATMENT PATHWAY OF EMPLOYEES UTILISING HEALTH INSURANCE SCHEME

401	What is your first action when you discover that you are sick?	• Visit health insurance scheme hospital • Visit hospital not enrolled for HIS • Visit traditional medical center • Visit faith/religious center • Uses home treatment/self-treatment/Lifestyle therapy • Visit patent medicine stores/pharmacy • Others, specify……..	1 2 3 4 5 6

			7
402	Thinking about your LAST ILLNESS, how many places of health care did you visit in all before recovery?	• 1 • 2 • 3 • 4 or more • Did not visit any health provider • Others, specify……..	1 2 3 4 5 6
403	At your LAST ILLNESS, please, tick all the places you had visited for health care or treatment	• Hospital/clinic enrolled for HIS • Hospital/clinic not enrolled for HIS • Traditional health centers • Faith/Religious centers • Home treatment/self-treatment • Patent medicine stores/pharmacy • Others, specify……..	1 2 3 4 5 6 7
404	During your last illness experience, which places of health care did you visit? **List in order of such visits**	• HIS hospital-Traditional-Faith/Religious-Pharmacy-Home/self-treatment • Traditional-Faith-Home/Self-Pharmacy-HIS Hospital. • Pharmacy-HIS Hospital-Traditional-Faith-Home/Self • Faith/Religious-Pharmacy-HIS Hospital • Home/Self-Faith/Religious-HIS hospital-Hospital without HIS • Hospital without HIS-Pharmacy-Traditional-Faith/Religious • HIS hospital only • Hospital without HIS only • Pharmacy Only	1 2 3 4 5 6 7 8 9
405	How long did you stay at your FIRST PLACE of visit before seeking for another source of care?	• Less than 3 days • 3-7 days • 2-4 weeks • 5-8 weeks • More than 2 months • Did not visit any health care provider	1 2 3 4 5 6
406	Why did you choose your FIRST PLACE of visit for treatment? **Please refer to question no.401** **Multiple response allowed**	• Affordability • Proximity • Attitude of healthcare provider • Quality assurance • Health coverage	1 2 3 4 5

		• Disease type • Advice from relatives or friends • Because my organisation enrolled me • Did not visit another care provider Others, specify……..	6 7 8 9
407	Do you like utilising health Insurance scheme?	• Yes • No	1 2
408	Why do you like utilising health insurance scheme? **State one major reason**	• Affordability • Proximity • Attitude of healthcare provider • Quality assurance • Health coverage • Free accessibility to medical care	1 2 3 4 5 6

APPENDIX II

KEY INFORMANT INTERVIEW QUIDE

(HMO AND NHIS OFFICIALS)

My name is Promise STARRIS-ONYEMA, a student of the Department of Sociology, University of Ibadan, Nigeria. I am conducting a research on the topic: **Adoption of Health Insurance Scheme and Health-Seeking Behaviour among employees of Private Organisations in Enugu State, Nigeria.** This is in partial fulfilment of the award of PhD in the above-mentioned Department. Your consent and cooperation will be appreciated. Your responses will be treated with confidentiality and will only be used for academic enquiry.

Please you are therefore required to answer the following questions honestly. Thank you.

Moderators Name----------

Note Taker/Recorder----------

Address of Venue----------

Date and Time of Interview----------

Socio-demographic information of the respondent

a. Sex…….

b. Number of years in the profession ----------

c. Approximated number of enrollees handled ----------

d. Designation ----------

e. Name of Organisation----------

Objective 1: Investigate the extent to which HIS is utilised by employees

1. What can you say about the extent to which health insurance scheme is utilised by employees of private organisations in Enugu State?

   Probe for:

   i. The extent to which employees are utilizing the scheme.
   ii. Organisation's policy concerning the utilisation of HIS by employees
   iii. Factors that may affect employees' utilisation of the scheme.
   iv. Success stories patterning to employees' utilisation of HIS.

Objective 2: Influence of the adoption of health insurance scheme on health-seeking behaviour of employees in private organisations

2. How has the adoption of health insurance scheme influence the health-seeking behaviour of employees in private organisations?

Probe for:

i. Observations and experiences during monitoring and evaluation of the scheme with respect to the adoption of the scheme and employees' health-seeking behaviour.

ii. Evidence based information regarding the adoption of the scheme and employees' health-seeking behaviour.

iii. Regulations guiding the scheme that could influence health seeking behaviour of private employees.

Objective 4: Gender differentials in the adoption of health insurance scheme among employees in private organisations.

What can you say about gender differences among private employees who are enrolled in the scheme?

Probe for:

i. Gender policy in HIS that may influence health-seeking behaviour and utilisation of HIS among employees.

ii. How issues related to gender is handled in the scheme with regard to employees' enrolment.

Objective 5: Challenges and experiences of employers in the adoption of health insurance scheme in private organisations

What are the challenges of employers in the adoption of HIS in private organisations?

What are the general experiences of employers in the adoption of HIS?

Probe for:

i. Employers satisfaction with the adoption and utilisation of HIS?
ii. Complaints that are often received from employers concerning the scheme?
iii. Is finance a major factor that discourages adoption of the scheme?
iv. If so, what can be done to encourage employers in adopting the scheme?

APPENDIX III

KEY INFORMANT INTERVIEW GUIDE

(MANAGEMENT STAFF OF PRIVATE ORGANISATIONS)

My name is Promise STARRIS-ONYEMA, a student of the Department of Sociology, University of Ibadan, Nigeria. I am conducting a research on the topic: **Adoption of Health Insurance Scheme and Health-Seeking Behaviour among employees of Private Organisations in Enugu State, Nigeria.** This is in partial fulfilment of the award of PhD in the above mentioned Department. Your consent and cooperation will be appreciated. Your responses will be treated with confidentiality and will only be used for academic enquiry.

Please you are therefore required to answer the following questions honestly. Thank you.

Moderator's name----------

Note Taker/Recorder----------

Address of Venue----------

Date and Time of Interview----------

Socio-demographic information of the respondent

a. Sex…….

b. Number of years in the profession ……

c. Approximated number of enrollees handled ……

d. Designation ----------

Objective 1: Investigate the extent to which HIS is utilised by employees

What can you say about utilisation of HIS by employees in your organisation?

Probe for:

i. The extent to which employees are utilizing the scheme.

ii. Organisation's policy concerning the utilisation of HIS by employees.

iii. Factors that may affect employees' utilisation of the scheme.

Objective 2: Adoption of HIS on health-seeking behaviour among employees

How has the adoption of health insurance scheme influence the health-seeking behaviour of employees in your organisations?

Probe for:

i. Fact findings during monitoring and evaluation of the scheme relative to employees adoption of HIS and health-seeking behaviour.

ii. Evidence based information regarding the adoption of HIS and employee health-seeking behaviour.

iii. Regulations guiding the scheme that could influence health seeking behaviour of private employees in the organisation.

iv. Challenges facing the organisation's employees in the adoption and utilisation of HIS.

Objective 4: Gender differentials in the adoption of health insurance scheme among employees in private organisations

What can you say about gender differentials in the adoption of health insurance scheme among employees in your organisations?

Probe for:

i. Gender policy of the organisationthat may influence the utilisation of HIS and health-seeking behaviour of employees.

ii. How issues related to gender are handled regarding health insurance scheme and health seeking behaviour of employees in the organisation.

Objective 5: Challenges and experiences of employers in the adoption of health insurance scheme in private organisations

What are the challenges of employers in the adoption of HIS for their organisations?

What are the general experiences of employers in the adoption of HIS in your private organisations?

Probe for:

i. Employers satisfaction with the adoption and utilisation of HIS?
ii. Complaints that are often received from employees concerning the scheme?
iii. Cost effectiveness relative to out of pocket expenses and funding
iv. What can be done by the regulators to encourage adoption of the scheme

APPENDIX IV

IN-DEPTH INTERVIEW GUIDE

(EMPLOYEES)

My name is Promise STARRIS-ONYEMA, a student of the Department of Sociology, University of Ibadan, Nigeria. I am conducting a research on the topic: **Adoption of Health Insurance Scheme and Health-Seeking Behaviour among employees of Private Organisations in Enugu State, Nigeria.** This is in partial fulfilment of the award of PhD in the above-mentioned Department. Your consent and cooperation will be appreciated. Your responses will be treated with confidentiality and will only be used for academic enquiry.

Please you are therefore required to answer the following questions honestly.

Thank you.

Objective 2: Investigate the extent to which HIS is utilised by employees

To what extent do you use HIS?

Probing for:

1. Awareness of HIS and organisational adoption of the scheme.
2. Perception of the scheme (both positive and negative perception)
3. Benefits and challenges encountered in utilizing HIS?
4. Preference for HIS compare to out-of-pocket payment before your enrolment in your place of work.

Objective 2: Adoption of HIS on health-seeking behaviour among employees

2. How has the adoption of health insurance scheme influence your health-seeking behaviour as an employee in private organisations?

Probe for:

i. Success stories regarding health seeking behaviour

ii. Challenges facing employee enrolment and health seeking behaviour

iv. Reasons for utilisation of the HIS as an employee

vi. Prospect of the scheme succeeding in private organisations

vii. Possible recommendation to improve the utilisation of the scheme among employees.

Objective 3: Treatment pathways of employees utilizing health insurance scheme

Briefly narrate your pathways to health seeking using your recent/last illness as a reference point.

Probe for:

i. The nature or name of the illness.

ii. The first step of action adopted immediately after a symptom was observed, and who/what influenced the decision to take action?

iii. The 1st, 2nd, 3rd places of visit if any and why

iv. The severity of the illness before seeking medical attention, if finally seek care from professional healthcare provider.

v. The reasons for delay in seeking medical care from professional healthcare provider.

vi. The last stage of visit for treatment and why opted for the said last place of visit?

vii. Your experiences in pathway use before your organisation enrolment.

Objective 4: Gender differentials in the adoption of health insurance scheme among employees in private organisations.

What can you say about gender differences in the adoption of health insurance scheme among employees in private organisations?

Probe for:

i. Gender policy of NHIS that may influence HIS utilisation and health-seeking behaviour of employees.

ii. How issues related to gender are handled in the scheme with regard to employees' enrolment.

ii. Who utilises more?

APPENDIX V

KEY INFORMANT INTERVIEW

(PROFESSIONALS- HEALTH CARE PROVIDERS)

My name is Promise STARRIS-ONYEMA, a student of the Department of Sociology, University of Ibadan, Nigeria. I am conducting a research on the topic: **Adoption of Health Insurance Scheme and Health-Seeking Behaviour among employees of Private Organisations in Enugu State, Nigeria.** This is in partial fulfilment of the award of PhD in the above-mentioned Department. Your consent and cooperation will be appreciated. Your responses will be treated with confidentiality and will only be used for academic enquiry.

Please you are therefore required to answer the following questions honestly. Thank you.

Moderator's name----------

Note Taker/Recorder----------

Address of Venue----------

Date and Time of Interview----------

Socio-demographic information of the respondent

i. Sex…….

ii. Number of years in the profession ……

iii. Approximated number of enrollees handled ……

iv. Designation ----------

Objective 1: Investigate the extent to which HIS is utilised by Employees

What can you say about the extent to which health insurance scheme is utilised by employees of private organisations in Enugu State?

Probe for:

i. Success stories about employees' utilisation of HIS

ii. Challenges facing employees' enrolment

iv Reasons for utilisation of HIS by private organisations employees

vi. Prospect of the scheme succeeding in private organisations

Objective 2: Adoption of health insurance scheme on health-seeking behaviour of employees

2. How has the adoption of health insurance scheme influence health-seeking behaviour of employees in private organisations?

Probe for:

i. Observations and experiences during monitoring and evaluation of the scheme with respect to adoption of the scheme and employee health-seeking behaviour.

ii. Evidence based information from records regarding the adoption of the scheme and employee health-seeking.

iii. Regulations guiding the scheme that could influence health seeking behaviour of private employees.

iv. What can be done to improve health seeking behaviour of employees who are in the scheme.

Objective 4: Gender differentials in the adoption of health insurance scheme among employees in private organisations.

What can you say about gender differences among employees in private organisations who are enrolled in the scheme?

Probe for:

i. Gender policy of NHIS that may influence HIS utilisation and health-seeking behaviour of employees.

ii. How issues related to gender are handled in the scheme with regard to employees' enrolment.

APPENDIX VI

Social Science and Humanities Research Ethics Committee (SSHREC)
University of Ibadan

Chairman
Prof. Jegede Ayodele Samuel.
B.Sc., M.Sc.(Ife) MHSc (Toronto), Ph.D. (Ibadan)

Email: sshrecuisoc@gmail.com
Mobile: +234-080-5725-0326

NOTICE OF FULL APPROVAL AFTER FULL COMMITTEE REVIEW

Re: Adoption of Health Insurance Scheme and healtSeeking Behaviour Among Employees of Private Organizations in Enugu State, Nigeria

UI/Social Sciences Ethics committee assigned number: **UI/SSHREC/2021/0005**
Name of Principal Investigator: **Promise N. Starris-Onyema**
Address of Principal Investigator: Department of Sociology
Faculty of The Social Sciences, University of Ibadan

Date of receipt of valid application: 10/04/2021
Date of meeting when determination on ethical approval was made: **13/07/2021**

This is to inform you that the research described in the submitted protocol, the consent forms, and other participant information materials have been reviewed and given full approval by the SSHREC Committee.
The approval dates from **13/07/2021 to 12/07/2022.** If there is delay in starting the research, please inform the SSHRE Committee so that dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. All informed consent forms used in this study must carry the SSHRE Committee assigned number and duration of SSHRE Committee approval of the study. It is expected that you submit your annual request for the project renewal to the SSHRE Committee early in order to obtain renewal of your approval to avoid disruption of your research.

Note: the National code for research ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to the SSHREC. No changes are permitted in the research without prior approval by the SSHREC except in circumstances outlined in the Code. The SSHRE reserves the right to conduct compliance visit to your research site without previous notification.

Prof. A. S. Jegede

APPENDIX VII

RC: 731945

INTEGRATED OBAINO LIMITED

TELECOMMUNICATION & PROFESSIONAL SERVICES

30th May, 2023

TO WHOM IT MAY CONCERN,

CONFIRMATION OF RESEARCH CONDUCTED BY PROMISE NKWACHI STARRIS-ONYEMA

I write to confirm that Promise Starris-Onyema, a Ph.D candidate of Sociology Department, faculty of the social sciences, University of Ibadan was granted the opportunity to conduct a research in 2021 with the project titled " Adoption of health insurance scheme and health-seeking behaviour among employees of private organisations in Enugu State, Nigeria.

I attest that the research included administration of questionnaires and interviews, using our employees as the sample population.

Please accept this as our confirmation of the above research.

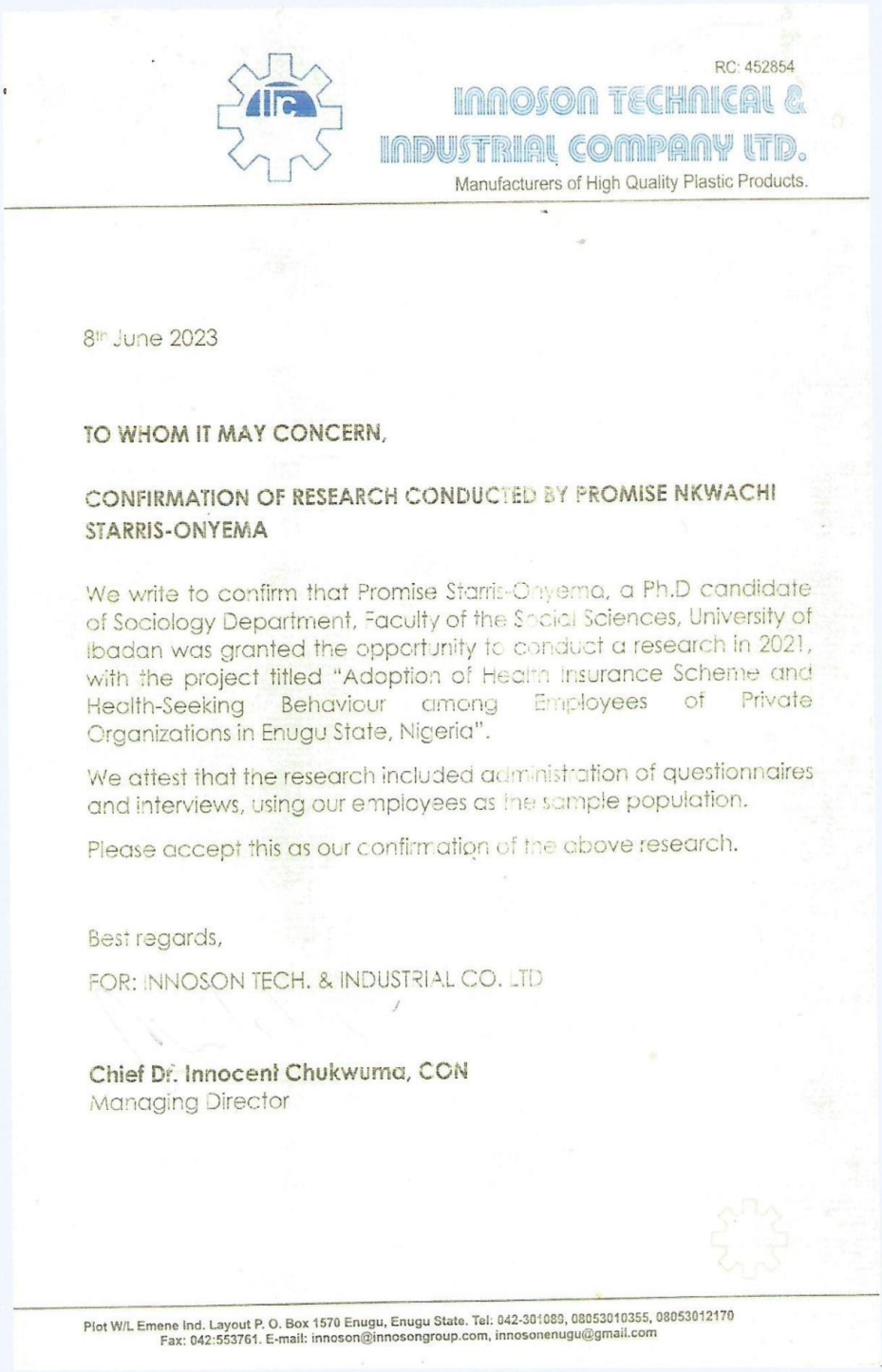
Best Regards,

Okoro Chukwuebuka Nestor
Manager
07062116297

CORPORATE OFFICE: No. 4, Gunning Road, Abakaliki, Ebonyi State, Nigeria.
BRANCH OFFICES: No 10 Eke Market Road, Afikpo
No.8 Afikpo Road, Abakaliki, Ebonyi State, Nigeria.
0808 638 0978, 0803 547 6794
integratedobaino@gmail.com

...Providing Services, Improving Lives & Meeting Global Standard.

APPENDIX VIII



RC: 452854

INNOSON TECHNICAL & INDUSTRIAL COMPANY LTD.

Manufacturers of High Quality Plastic Products.

8th June 2023

TO WHOM IT MAY CONCERN,

CONFIRMATION OF RESEARCH CONDUCTED BY PROMISE NKWACHI STARRIS-ONYEMA

We write to confirm that Promise Starris-Onyema, a Ph.D candidate of Sociology Department, Faculty of the Social Sciences, University of Ibadan was granted the opportunity to conduct a research in 2021, with the project titled "Adoption of Health Insurance Scheme and Health-Seeking Behaviour among Employees of Private Organizations in Enugu State, Nigeria".

We attest that the research included administration of questionnaires and interviews, using our employees as the sample population.

Please accept this as our confirmation of the above research.

Best regards,

FOR: INNOSON TECH. & INDUSTRIAL CO. LTD

Chief Dr. Innocent Chukwuma, CON
Managing Director

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Fax: 042:553761. E-mail: innoson@innosongroup.com, innosonenugu@gmail.com