

# Navigating Wellness: Influence of Health Insurance Adoption on Health-Seeking Behaviour of Employees in Private Organizations in Enugu State, Nigeria

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*Healthcare access and utilization are fundamental components of well-being, and the adoption of health insurance scheme (HIS) in private organizations has become a prominent strategy to enhance employees' access to healthcare services. This Study examines the relationship between the adoption of HIS and the health-seeking behaviour of employees in private organizations in Enugu State, Nigeria. Structural Functionalism and the Health Belief Model were adopted as framework. A mixed-methods approach, combining surveys and interviews, was utilized to gather both quantitative and qualitative data. A sample of 457 respondents was drawn using Yamane's (1967) formula. A multi-stage sampling technique was used to administer semi-structured questionnaire to employees in manufacturing (369) and service (88) industries. Twenty-four in-depth interviews were conducted among employees. Sixteen key informant interviews were conducted with 8 management staff of private organizations, 4 healthcare providers from NHIS accredited hospitals, 2 health maintenance organisation managers, and 2 NHIS executive officers to elicit information on adoption of HIS and health-seeking behaviour of employees. Quantitative data were analysed using descriptive statistics and Logistic Regression at  $p \leq 0.05$ , while qualitative data were content-analysed. Respondents' age was  $38 \pm 2.4$  years; 77.4% had tertiary education and 70.8% were married. Influence of HIS on health-seeking behaviour was significantly associated with female gender (OR = 1.96), tertiary education (OR = 7.27), senior staff position (OR = 1.57), and earning a monthly income of ₦100,000 or more (OR = 4.04). Employers' challenges in the adoption of HIS were payment of premiums, complex bureaucratic structure of the system, and inability to access certain hospitals due to their chosen HIS plan. Stakeholders should therefore increase awareness among private employers about the benefits of HIS and customise plans to suit the peculiarity of private sector employers to reduce their out-of-pocket health expenditure.*

**Keywords:** Health insurance scheme, employee access to healthcare, out-of-pocket health expenditure

## Introduction

In recent years, there has been a growing emphasis on enhancing health insurance schemes in less developed countries, driven by the need to mitigate the financial burdens associated with healthcare expenses (Sendekie, Gebremichael and Tadesse, 2024; Yazbeck, Soucat, Tandon, Cashin, Kutzin, Watson and Evetovits, 2023). An estimated 1.3 billion people, globally, lack access to health services with about 61% of them employed in the informal sector. By implication therefore, informal

sector employees could deliberately avoid quality medical services due to unaffordable costs, notwithstanding the concomitant consequences, including deaths, (Mwinuka, Echoka and Nyaberi, 2023; Goldschmidt and Muhammad, 2019). Recognizing the pivotal role of social security systems in addressing health disparities, many advanced countries have successfully implemented health insurance structures, leading to improved accessibility and the promotion of universal health coverage for their citizens (Morgan, Adei,

Agyemang-Duah, Pephrah and Mensah, 2023; Dong, Fu, Yu and Li, 2023).

India, notably, has provided a blueprint for less developed countries on tailoring health insurance to suit the private sector's needs in regions like sub-Saharan Africa (Khetrapal, 2016; Khetrapal, and Acharya, Mills, 2019; Kamath and Brand 2023). Health insurance serves as a protective measure against high medical expenses resulting from illness or injury, aiming to encourage productivity among workers through employer and employee-funded pools while mitigating unforeseen financial burdens (Kaso, Obsie, Debela, Tololu, Mohammed, Hareru and Hailu, 2024; Jumaniyazov and Xaydarov, 2023).

Despite efforts across various African societies to promote mass well-being through enhanced healthcare accessibility, the adoption of health insurance schemes remains low in sub-Saharan Africa (Singh, Kaul, Bala, Krishnan and Rawandale, 2024; Amu, Aboagye, Dowou, Kongnyuy, Adoma, Memiah and Bain, 2023). This can be attributed to factors such as social acceptability and economic sustainability, as the Western model of health insurance may not align with the region's socio-cultural, economic, and political contexts (Olugbenga, 2017; Quartey, Pephrah and Morgan, 2023).

In Nigeria, the implementation of health insurance plans remains challenging despite initiatives like the Universal Health Coverage Campaign, the establishment of the National Health Insurance Scheme in 2005, and the enactment of the National Health Insurance Authority Act, 2022 (Adewole and Osungbade, 2016; Federal Republic of Nigeria, 2022). The goal of achieving universal health coverage, as outlined in Sustainable Development Goal 3 (SDG 3), remains elusive, with limited progress observed even after the launch of the National Health Insurance Scheme (Owumi, Adeoti, and Taiwo, 2013; Adamu, 2019).

While Nigeria's health insurance scheme was designed to be adopted and implemented at the state level, only a fraction of states, including Enugu State in the South-East Geopolitical Zone, have fully embraced the program (World Health Organization Database, 2019). However, adoption among private organizations within these states remains limited, highlighting the importance of understanding how the adoption of health insurance

schemes influences the health-seeking behaviour of employees.

Studies show that health-seeking behaviour, crucial for achieving universal health coverage and sustainable development goals, can significantly influence employees' healthcare decisions (Garba and Ejembi, 2015; Kang, Ma, Chen, Yang, Wang, Li, and Liu, 2020). Gender differentials also play a role in shaping health-seeking behaviours among private sector employees (Adongo, Dapaah, Azumah and Onzaberigu Nachinaab, 2022). Past research has shown that employees utilizing health insurance schemes tend to have better health outcomes compared to those who do not, with socio-economic factors further influencing scheme utilization (Dutta and Hongoro, 2013; Asibey and Agyemang, 2017; Mohd-Noh, Jawahir, Tan, Rahim and Tan, 2022).

While existing studies have examined various aspects of health insurance scheme utilization, there remains a gap in understanding the association between health insurance scheme adoption and health-seeking behaviour among private sector employees, particularly in Nigeria where access to healthcare is limited (Spaan, 2012; Michael, Nwokocha and Ukwandu, 2021; Balakrishnan, 2024). Addressing this gap is crucial for informing policy actions aimed at improving healthcare access as well as achieving sustainable development in Nigeria. This study aims to investigate how the adoption of health insurance schemes influences the health-seeking behaviour of employees in private organizations in Enugu State, Nigeria. By exploring the underlying factors shaping this relationship, the study seeks to contribute to the understanding of healthcare utilization patterns in the private sector and inform policy interventions aimed at enhancing healthcare access and promoting universal health coverage.

### **Theoretical framework**

The study employed two theoretical frameworks, Structural Functionalism and the Health Belief Model (HBM). Structural Functionalism, rooted in the works of pioneers like Comte, Durkheim, and Spencer, conceptualizes society as a complex system, which comprises interconnected parts, each contributing to the overall functioning of the whole. Malinowski and Radcliffe Brown further expanded on this, highlighting societies' operation based on meeting basic survival needs distributed across

various societal institutions such as family, economy, religion, education, politics, and health. Radcliffe Brown emphasized the significance of positive relationships among these institutions in sustaining favourable health outcomes and regulating members' health-seeking behaviours. The theory underscores the importance of government policies, particularly regarding health insurance schemes, in reducing out-of-pocket expenses and enhancing the population's health status. However, Structural Functionalism as a perspective lacks consideration for individual differences and perceptions in healthcare seeking behaviour, prompting the inclusion of the Health Belief Model in the study.

The Health Belief Model, developed by Hochbaum, Kegels, and Rosenstock in 1974, focuses on individuals' attitudes and beliefs as predictors of health-seeking behaviour. It posits that individuals are more inclined to take health-seeking actions if they believe they can avoid negative health outcomes and that recommended actions will lead to desired results. The model emphasizes positive health behaviours to avert negative health consequences, driven by perceptions of susceptibility, severity, benefits, barriers, cues to action, and self-efficacy regarding illnesses. It categorizes health service utilization determinants into predisposing, enabling, and need characteristics, considering factors like gender, education level, age, marital status, income, and contextual factors of health policy. This framework provides a comprehensive understanding of the influences on individuals' decisions regarding health-seeking behaviour, including their participation in health insurance schemes.

In essence, these theoretical perspectives offer complementary insights into the societal and individual factors influencing health-seeking behaviours and the adoption of health insurance schemes among employees in private organizations in Enugu State, Nigeria. While Structural Functionalism elucidates the broader societal structures and policies shaping health outcomes, the Health Belief Model delves into the individual beliefs and perceptions driving health-seeking behaviours. Integrating these frameworks enables a comprehensive analysis of the dynamics underlying health-related decision-making in the context of

private sector employment and health insurance adoption.

### **Conceptual framework**

The conceptual framework in Figure 1 synthesizes the two theoretical perspectives adopted to explain the phenomenon and the objectives of the study in order to explain the interconnectedness of institutional structure and individual perception and disposition to health seeking. The framework reflects how individual and institutional factors interact with components of the Health Belief Model such as 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 influence employees' health seeking behaviour. A closer 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 lines 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. As a corollary, health seeking decisions for some of the respondents were embedded in complexity and informed by the existence of HIS policy and individual employee's perception of what was considered most rational or effective.

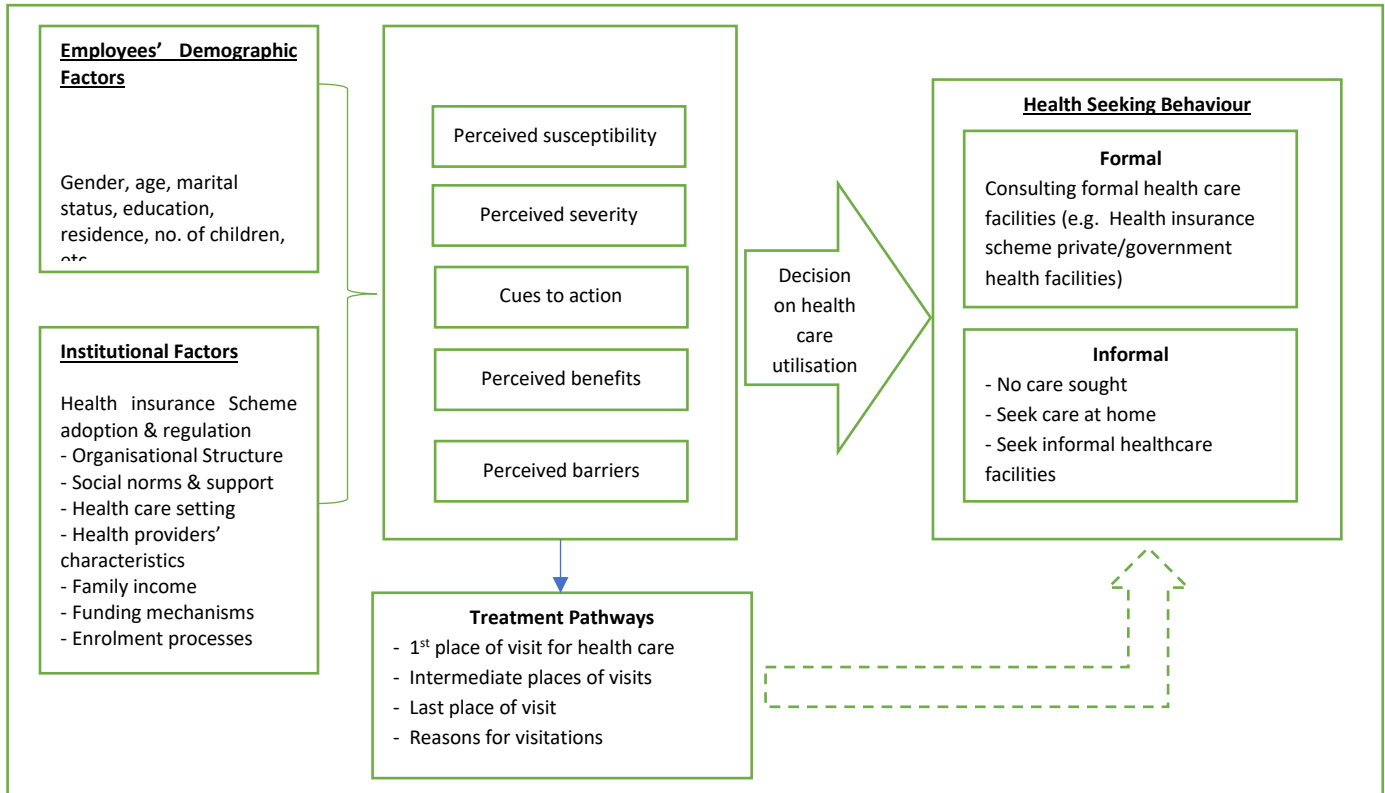


Figure 1: Conceptual framework

### Materials and methods

The cross-sectional research design was adopted for the study which necessitated collection of data from sub-sets of the population. The study included employees from private organisations in Enugu State. The mixed methods approach involving quantitative and qualitative data collection was employed to ensure robustness in data collection.

The research was conducted in Enugu State. Enugu, located in Nigeria's south-eastern zone, is the bedrock of Igbo land. The name was derived from its origin, "Enu Ugwu," which means "top of the hill." In other words, it is an inland state known as Coal-City or *ndi Wawa* (people from *Wawa* origin). The state served as the administrative centre for the former East Central State and Eastern Nigeria. Enugu is the capital of Enugu State, with Igbo as the native language of the people. The state is located at latitude 6o30' north of the Equator and longitude 7o30' east of Greenwich on the World Time Zone, with a one-hour GMT offset. The area code for the state is 042. 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 Southeastern Zone to have completed its official adoption of a health insurance scheme by the state government (Onoka *et al.*, 2015; WHO Data Base, 2019). This research was carried out in Enugu, the state capital.

The study 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. These were: (i) 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. (ii) 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 serving company to Nigerian Breweries. The company also focused on communication and marketing services.

Because 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 brings the sample size up to 457 respondents, who were divided between employees with health insurance 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:

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

Where:  $n$  = Sample size  
 $N$  = Population size (1,240)  
 $1$  = Constant  
 $e$  = error of sampling (0.04).

$$n = \frac{1240}{[1+1240(0.04)^2]} = \frac{1240}{[1+1240(0.0016)]}$$

$$n = \frac{1240}{[1+1.984]} = \frac{1240}{2.984} = 415.5$$

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

The sample size for this study was therefore put at 457.

**Table 1: Proportional distribution of sample by the Study population**

| Selected Organizations                           | Type of Industry | No. of Staff   | Proportion              | Questionnaire Proportional Distribution |
|--|------------------|----------------|-------------------------|---|
| Innoson Technical and Industrial Company Limited | Manufacturing    | 1000           | $1000/1,240*100 = 80.6$ | $80.6/100*457 = 369$                    |
| Integrated Obaino Limited                        | Service          | 240            | $240/1,240*100 = 19.4$  | $19.4/100*457 = 88$                     |
| <b>Total (N)</b>                                 |                  | <b>= 1,240</b> | <b>= 100%</b>           | <b>= 457</b>                            |

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

*Stage 1:* Enugu State was purposively 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; World Health Organisation Data Base, 2019).

*Stage 2:* A stratified 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.

*Stage 3:* From the drafted lists, two organisations with health insurance schemes were chosen using a simple random sampling technique. One

organisation was chosen from the manufacturing industries list, and the other from the service industries list.

*Stage 4:* 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 organizations. The lottery method assigned a number to each employee in the selected organization, after which numbers were drawn at random from a box containing the wrapped numbers assigned to the employees. Purposive sampling was used for in-depth and key informant interviews. The inclusion criteria were that employees must be between the ages of 18 and 59, worked at current workplace for at least one year prior to the survey, 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.

The instruments included Questionnaire, key informant interview (KII), and In-depth Interview (IDI) Guides. The combination of these methods allowed one method to compensate for the shortcoming of the other. Employees from the chosen private organisations took part in completing the questionnaire and responding to the interviews. Key informant interviews were conducted with health professionals, managers

from selected private organisations, managers from health maintenance organisations, and officials from health insurance schemes. The researchers designed the instrument for employees in the selected private organisations after conducting an in-depth review of related and relevant studies. Table 2 shows breakdown of data sampling techniques by sample population and instruments.

**Table 2: Selection of respondents according to instruments for data collection**

| Sample Population   | Quantitative               | Qualitative |           |  |
|---|----------------------------|-------------|-----------|--|
|   | Questionnaire              | IDI         | KII       |  |
| Employees   | Manufacturing Organisation | 369         | 14        |  |
|   | Service Organisation       | 88          | 10        |  |
| Management Staff of selected Private organizations                    |                            |             | 8         |  |
| Healthcare Providers (Medical Doctors) from NHIS accredited hospitals |                            |             | 4         |  |
| Health Maintenance Organization (HMO) Managers                        |                            |             | 2         |  |
| NHIS Executive Officers   |                            |             | 2         |  |
| <b>Total</b>  | <b>457</b>                 | <b>24</b>   | <b>16</b> |  |

The validity and reliability of the study instruments were rigorously assessed through a process of content validation and test-retest reliability. Content validity was ensured by scrutinizing the instruments against previous research findings, literature review insights, theoretical framework alignment, and expert consultation from a research project supervisor and other lecturers proficient in Sociology, Medical Sociology, Industrial Relations, and Health Demography. These experts provided critical feedback and suggestions for refining the instruments to align with the study's objectives, resulting in necessary adjustments to questionnaire items and interview guides. Subsequently, the instruments underwent pre-testing on separate samples, including 30 respondents for the questionnaire and relevant stakeholders for qualitative instruments, to ascertain reliability. Internal consistency values of at least  $r = 0.76$  were obtained in the quantitative instrument, indicating satisfactory reliability of the instruments, thus affirming their suitability for capturing data pertinent to the study's research questions and objectives.

To ensure efficient data collection, the researchers hired and trained two Research Assistants on administration of the questionnaire including on ethical standards and other controls, such as verbal instructions, and confidentiality of

information received was stressed. Before administering the instrument, permission was obtained 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.

Data analysis involved the utilization of descriptive statistics such as frequency and percentages to analyze respondent demographic data. Multinomial Logistic Regression Analyses were employed to examine the key research variables. Chi-square tests were initially conducted to assess relationships between variables, while variables that were significant were proceeded into the logistic regression model. The logistic regression statistics were utilized to test the estimation effect of relationships between one or more independent variables and a dependent variable, at the 0.5 level of significance. Qualitative data were content-analysed.

Ethical approval was obtained from the Social Sciences and Humanities Research Ethics Committee, University of Ibadan, Nigeria, 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 they felt, at any point, that their rights were violated in any way.

## **Results**

### ***Background Characteristics of the Employees***

The socio-demographic and economic characteristics of respondents are shown in Table 4. 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 percent 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 3: Background characteristics of the respondents**

| <b>Characteristics</b>        | <b>Frequency (N=457)</b> | <b>Percentage</b> |
|-------------------------------|--------------------------|-------------------|
| <b>Age (years)</b>            |                          |                   |
| 18-29                         | 63                       | 14.1              |
| 30-39                         | 175                      | 39.2              |
| 40-49                         | 132                      | 29.6              |
| 50+                           | 76                       | 17.0              |
| <b>Marital status</b>         |                          |                   |
| Single                        | 121                      | 26.8              |
| Married                       | 320                      | 70.8              |
| Separated/Divorced/Widowed    | 11                       | 2.4               |
| <b>Number of children</b>     |                          |                   |
| 0                             | 120                      | 26.7              |
| 1-2                           | 156                      | 34.7              |
| 3-4                           | 144                      | 32.1              |
| 5+                            | 29                       | 6.5               |
| <b>Sex</b>                    |                          |                   |
| Male                          | 260                      | 58.6              |
| Female                        | 184                      | 41.4              |
| <b>Education</b>              |                          |                   |
| Below tertiary education      | 108                      | 22.6              |
| Tertiary education            | 349                      | 77.4              |
| <b>Religion</b>               |                          |                   |
| Christianity                  | 395                      | 88.4              |
| Islam                         | 35                       | 7.8               |
| Traditional                   | 17                       | 3.8               |
| <b>Family type</b>            |                          |                   |
| Monogamous                    | 390                      | 89.4              |
| Polygamous (polygyny)         | 46                       | 10.6              |
| <b>Grade level</b>            |                          |                   |
| Junior staff                  | 155                      | 43.9              |
| Senior staff                  | 284                      | 52.1              |
| <b>Average monthly income</b> |                          |                   |
| Less than N31,000             | 54                       | 12.8              |
| N31,000-N50,999               | 67                       | 15.9              |
| N51,000-N99,999               | 99                       | 23.5              |
| N100,000 & above              | 201                      | 47.7              |
| <b>Type of Organization</b>   |                          |                   |
| Manufacturing                 | 369                      | 80.7              |
| Service                       | 88                       | 19.3              |
| <b>Name of HMO use</b>        |                          |                   |
| Pro Health                    | 258                      | 76.6              |
| Aka (Mansard)                 | 55                       | 16.3              |
| Akwe                          | 13                       | 3.9               |
| Venus                         | 11                       | 3.3               |

**Note:** Mean age = 36.9±1.7 years



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 organizations. The majority of respondents' Health Maintenance Organization (HMO) was Pro Health (76.6%). This was followed by 16.3 percent of those whose HMO was Aka (Mansard).

**Health insurance scheme and health-seeking behaviour of employees**

Figure 2 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 organizations' 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.

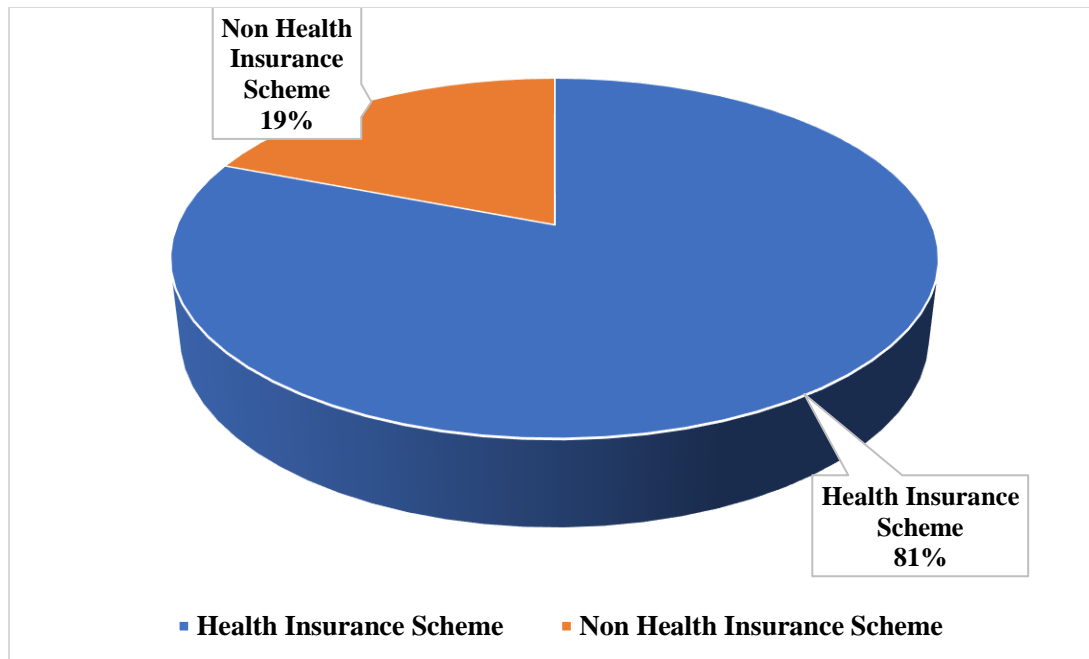


Fig. 2: Percentage distribution of respondents by preferred type of health care system for treatment when sick

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 provides peace of mind while also reducing financial burden... The fact that the HIS scheme does not cover a broader range of treatments limits utilization 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 organizational 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 organization'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 organization 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 organization 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 3 depicts the percentage distribution of respondents by reasons for preferring out-of-pocket payment in health seeking even though their organization had 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.

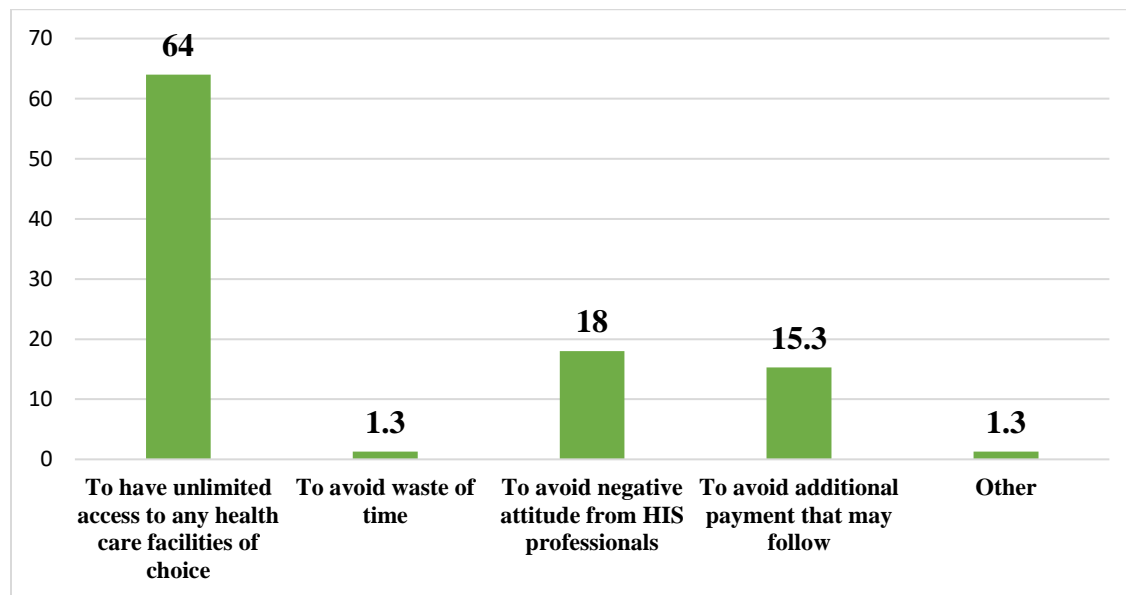


Fig. 3: Percentage distribution of respondents by reasons for preferring out-of-pocket payment for healthcare seeking even when their employer has enrolled them in a health insurance scheme programme

In response to a qualitative interview on why some employees prefer out-of-pocket payment to HIS for healthcare seeking behaviour despite their organizations enrolling them in health insurance scheme program. According to one of the operations managers, the organizations are not monitoring any measures that could compel employees to use HIS hospitals/clinics when they are sick. As per the interviewee, organizations 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 utilization 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 utilization 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 utilization 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 organization 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/Ser-vice 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 organizations. Employers can help increase employee utilization of HIS for healthcare by providing more benefit coverage (better plan). HMOs should also receive installment 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 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 organizations 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 organizations, 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 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 organization 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 organization implementing the scheme for employees. Before their organizations formally adopted the program for employees, approximately 11% of the respondents were already enrolled in the health insurance scheme.

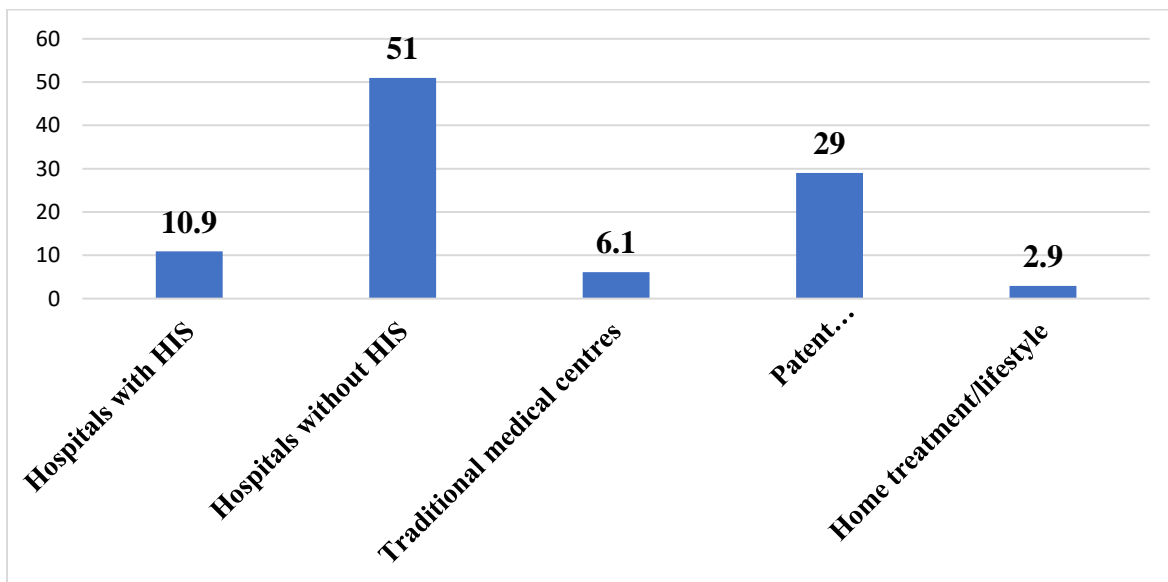


Fig. 4: Percentage distribution of respondents by forms of health care used prior to their organization's adoption of health insurance scheme

Table 5 shows the results of a binary logistic regression based on selected socio-demographic variables to show the health-seeking behaviour of

employees whose organizations have implemented a health insurance scheme. According to the findings, 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 & 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: Results of binary logistic regression showing health-seeking behaviour of employees whose organizations have adopted health insurance scheme by selected socio-demographic variables**

| Variables                       | B      | S.E.  | p-value | Odds ratio | 95% C.I. |       |
|---------------------------------|--------|-------|---------|------------|----------|-------|
|                                 |        |       |         |            | Lower    | Upper |
| <b>Age (years)</b>              |        |       |         |            |          |       |
| 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 |
| <b>Marital status</b>           |        |       |         |            |          |       |
| 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 |
| <b>Number of children</b>       |        |       |         |            |          |       |
| 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 |
| <b>Sex</b>                      |        |       |         |            |          |       |
| Male (Ref.)                     |        |       |         | 1.000      |          |       |
| Female                          | -0.044 | 0.366 | 0.014   | 1.957**    | 0.867    | 1.962 |
| <b>Education</b>                |        |       |         |            |          |       |
| Below tertiary (Ref.)           |        |       |         | 1.000      |          |       |
| Tertiary                        | 1.985  | 0.602 | 0.001   | 7.279***   | 6.938    | 7.678 |
| <b>Religion</b>                 |        |       |         |            |          |       |
| 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 |
| <b>Grade level</b>              |        |       |         |            |          |       |
| Junior staff (Ref.)             |        |       |         | 1.000      |          |       |
| Senior staff                    | 0.448  | 0.552 | 0.007   | 1.565**    | 0.530    | 1.619 |
| <b>Average monthly income</b>   |        |       |         |            |          |       |
| 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 & above                | 1.951  | 1.345 | 0.001   | 4.038***   | 3.504    | 4.642 |
| <b>Overall Model Evaluation</b> |        |       |         |            |          |       |
| 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 behaviour of employees

### Discussion

The study's findings indicate that the organizational policy of enrolling employees in the health insurance scheme (HIS) has significantly influenced their family's health-seeking behaviour, as reported by employees. The interviews revealed that the HIS program encourages employees to seek

healthcare from registered HIS hospitals, which they perceive as cost-effective and efficient. Notably, the scheme covers healthcare costs for employees, further incentivizing its utilization. Key informant interviews underscored a high rate of HIS utilization among organizational staff, with enrollment strongly directing their health-seeking

behaviour. However, concerns were raised regarding the potential administration of ineffective drugs at HIS hospitals, although lacking substantial evidence. While previous studies haven't specifically addressed this concern, findings from a study in Kenya (Mbuthia *et al.*, 2018) suggest a correlation between uncertainty about illnesses and self-medication practices.

Employees in the current study emphasized their freedom to choose healthcare providers, with organizational enrollment aimed at promoting health and productivity rather than mandating specific providers. Nevertheless, it's noted that the HIS coverage is not comprehensive, leaving employees to cover expenses beyond the plan's scope (Adewale *et al.*, 2016; Oriolowo *et al.*, 2022). The majority of respondents expressed a preference for health insurance schemes, highlighting the perceived value in organizational adoption of such programs. Qualitative data reinforced this preference, indicating that employees primarily seek care from HIS-accredited facilities to alleviate financial burdens and ensure coverage. However, concerns were raised regarding the adequacy of coverage, especially for costly procedures and drugs. Interestingly, despite organizational efforts to promote HIS utilization, a substantial portion of respondents still preferred other healthcare systems, citing concerns such as limited facility choices, negative attitudes, and additional costs associated with HIS enrollment. Financial constraints were identified as a significant barrier to HIS utilization, consistent with findings from Zambia (Daka *et al.*, 2021) and Nigeria (Alawode and Adewole, 2021).

Qualitative interviews shed light on employees' diverse reasons for seeking alternative healthcare options, including dissatisfaction with HIS operations, coverage limitations, and delayed reimbursements to healthcare providers. Efforts to address these issues were highlighted as necessary to enhance HIS effectiveness and uptake (Adebisi and Adeniji, 2021; Onyemaechi and Ezenwaka, 2022). Notably, the study found variations in healthcare utilization patterns prior to organizational HIS adoption, reflecting individual circumstances and pre-existing insurance arrangements. Logistic regression analysis revealed socio-demographic factors influencing HIS utilization, including age, marital status, education level, income, and family size, aligning with

findings from studies in Ethiopia (Merga *et al.*, 2022), Uganda (Mpuuga and Eshete, 2022), and Ghana (Obiamaka *et al.*, 2021).

Respondents aged between 30 and 49 were found to be 89 percent less likely to be influenced by the adoption of a health insurance scheme compared to those aged 18 to 29. Conversely, respondents aged 50 and older were 3.5 times more likely to be influenced by the adoption of such a scheme compared to younger age groups. Marital status also played a significant role, with married individuals being 4.1 times more likely to be influenced by the HIS adoption compared to single respondents. This aligns with similar findings from studies conducted in Uganda (Medard *et al.*, 2022) and South Africa (Mhlanga and Dunga, 2020), which highlighted the influence of marital status on HIS utilization.

Furthermore, respondents with children exhibited a higher likelihood of being influenced by the adoption of the health insurance scheme, with those having 3-4 and 5 or more children being 2.5 and 3.4 times more likely, respectively, compared to those without children. Gender also emerged as a factor, as female respondents were 1.9 times more likely to be influenced by the HIS adoption compared to their male counterparts. Moreover, educational attainment played a significant role, with respondents having tertiary education being 7.2 times more likely to be influenced by the HIS adoption compared to those with lower educational levels. Similarly, senior employees were 1.6 times more likely than junior employees to be influenced by the adoption of the HIS. An earlier study conducted in Kenya (Mugo, 2023), and Zambia (Mulenga *et al.*, 2021) discovered that patients' pathways to health care change in a variety of directions over time due to education and social factors. In contrast, a study conducted in Malaysia by Dawood *et al.* (2017) among 888 respondents found that there was no significant relationship between gender, and seeking health care from physicians when sick.

Additionally, higher income levels corresponded to a higher likelihood of being influenced by the HIS adoption. This finding resonates with a study conducted in Malaysia (Hasan and Rahman, 2022), which highlighted the influence of education, wealth index, and occupation on willingness to pay for HIS services. However, variables such as gender, marital status,



and ethnicity did not significantly influence willingness to pay for and use HIS services according to the Malaysian study. Similarly, Mhlanga and Dunga (2020) discovered that marital status has a significant influence on HIS utilisation in a study conducted in South Africa. In essence, while the HIS program has positively impacted employees' health-seeking behaviour, challenges remain in ensuring comprehensive coverage, addressing operational issues, and mitigating financial barriers.

### Limitations of the study

The lack of national datasets on private sector scheme utilisation was a limitation because more representative data could have enriched the study's findings and generalisation of findings. The second limitation was the study's exclusion of public-sector employees. Additional limitation was the study's - cross-sectional design, which prevented respondents from being followed up on 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 the study are very relevant to policy development and implementation.

### Conclusion and recommendations

Based on the findings, recommendations emerge to enhance the effectiveness and uptake of the health insurance scheme (HIS) program within organizations. Firstly, efforts should be directed towards addressing concerns regarding coverage limitations and operational challenges, including ensuring timely reimbursements to healthcare providers and expanding coverage to include costly procedures and drugs. Additionally, initiatives aimed at increasing awareness and understanding of the HIS program among employees are essential to promote its utilization and maximize its benefits. Organizations should also consider offering flexibility in healthcare provider choices while maintaining the cost-effectiveness and efficiency of HIS-accredited facilities. Moreover, collaborative efforts between employers, healthcare providers, and health management organizations (HMOs) are crucial to address issues such as drug stock-outs, reimbursement delays, and negative perceptions surrounding HIS operations. By addressing these

recommendations, organizations can optimize the HIS program's potential to improve employee health outcomes and productivity.

While the study highlights the positive impact of organizational HIS adoption on employees' health-seeking behaviour, it also underscores the need for ongoing efforts to overcome challenges and ensure the program's effectiveness. By addressing coverage limitations, operational issues, and financial barriers, organizations can strengthen the HIS program's role in promoting employee health and well-being. Ultimately, fostering collaboration and awareness while prioritizing employee-centric approaches are essential for maximizing the benefits of HIS programs within organizational settings for sustainable development.

### Funding

This research did not receive any specific grant from funding agencies in the public, commercial or not-for-profit sectors.

### Conflict of interest

The authors have no conflict of interest to declare.

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