

Facilitators and Barriers to Nurses' Participation in the National Health Insurance Scheme at a Teaching Hospital in Southeast Nigeria

Running Title: Refuse Disposal Compliance in Onitsha

Joy N. Jacob¹, Elizabeth M. Samuel², Blasius O. Okwara³, Chidimma M. Okoye⁴, Victor O. Adika⁵, Amaechi Ugbala⁶, Mercy E. Ezeani⁷, Njideka G. Okonkw⁸

¹Department of Nursing Sciences, Southern Delta University, Ozoro, Delta State, Nigeria

² Department of Nursing Science, Anmbra State College of Nursing Sciences Nkpor, Anambra State, Nigeria

³Department of Orthopaedics and Trauma, University of Nigeria Teaching Hospital, Ituku/Ozalla, Enugu, Nigeria / Senior Lecturer, Godfrey Okoye University, Enugu, Nigeria

⁴Department of Nursing Science, College of Nursing Sciences, Nnamdi Azikiwe University Teaching Hospital, Nnewi, Anambra State, Nigeria

⁵Department of Nursing Sciences, Southern Delta University, Ozoro, Delta State, Nigeria

⁶Division of Plastic Surgery, Department of Surgery, Alex Ekwueme University Teaching Hospital, Abakiliki, Ebonyi State, Nigeria

⁷Department of Nursing Science, Anambra State College of Nursing Sciences, Nkpor, Anambra State, Nigeria

⁸Department of Nursing Science, College of Nursing Sciences, Nnamdi Azikiwe University Teaching Hospital, Nnewi, Anambra State, Nigeria

DOI: <https://doi.org/10.51244/IJRSI.2026.1315PH00125>

Received: 14 June 2026; Accepted: 19 June 2026; Published: 04 July 2026

ABSTRACT

Background: The National Health Insurance Scheme (NHIS) was established in Nigeria to improve healthcare access and reduce out of pocket expenditure. However, participation among healthcare professionals, particularly nurses, remains suboptimal. Understanding the facilitators and barriers affecting nurses' involvement is critical for strengthening the scheme.

Objective: To identify facilitators promoting participation and to assess individual and organizational barriers hindering participation among nurses at Chukwuemeka Odumegwu Ojukwu University Teaching Hospital (COOUTH), Awka, Anambra State.

Methods: A cross-sectional survey was used to conduct a descriptive survey on 184 registered nurses who were chosen through multistage sampling. The structured validated questionnaire was used to collect the data. The SPSS version 28 was used to analyze the descriptive statistics such as means, frequencies, and percentages. The scale was a 5 points Likert scale with the mean scores of 3.41 and above being regarded as agreement.

Results: Most of the respondents were women (61%), with an age between 28 and 37 years (37%), and a Bachelor of Nursing Science degree (50%). The main facilitators were the realization of the benefits of NHIS to the healthcare system, better access to care by patients and the sense of being valued in the implementation of NHIS policies. The significant personal obstacles included lack of involvement in decision making, heavy work

load, and lack of incentives. Organizational obstacles comprised of insufficient provision of medicines and equipment, bad grievance systems, and protracted enrolment processes.

Conclusion: Although nurses recognize the advantages of NHIS, there are major personal and organizational obstacles that curtail their involvement. To achieve universal health coverage in Nigeria, it is necessary to address workload problems, offer incentives, enhance drug supply, and engage nurses in decision making.

Keywords: National Health Insurance Scheme, nurses, facilitators, barriers, Nigeria, NHIS, universal health coverage

INTRODUCTION

National Health Insurance Scheme (NHIS) is a social security scheme that aims to ensure the provision of health services after payment of regular contributions (Eze et al., 2024). The scheme was initially conceived in 1962 and approved by the federal government in 1997, signed into law in 1999 and officially opened on 6 June 2005 (Eze et al., 2024). The NHIS was formed to deal with the poor health indices, high mortality rates, and the high financial cost of out of pocket (OOP) healthcare spending on households in Nigeria (Premium Times, 2025).

The health financing environment in Nigeria is still fragile, even though it has improved recently. By 2025, more than 70 percent of the total health spending is still out of pocket payments, one of the highest in the world (World Bank, 2024; Premium Times, 2025). The Minister of State, Health and Social Welfare affirmed that OOP spending is driving millions of Nigerians into poverty each year, with the per capita health spending at around only \$43 in 2024, compared to the recommended 86 per capita that WHO recommends to low-income countries (Premium Times, 2025). Moreover, Nigeria spends just 5.2% of its national budget on health, which is significantly lower than the 15 percent of the Abuja Declaration of 2001 (Premium Times, 2025). As a result, maternal mortality is at 512 deaths per 100,000 live births, and under five mortality is at 110 deaths per 1,000 live births (2023 NDHS; Premium Times, 2025). Nigeria is the country that contributes to about 14 percent of the maternal deaths in the world and 9 percent of under five deaths in the world even though it comprises only 2.6 percent of the world population (Premium Times, 2025).

Nurses constitute the largest professional group in the Nigerian healthcare workforce and are important to the successful implementation of any health insurance scheme (Oladugba et al., 2024). Studies have shown that while awareness of NHIS among nurses is high often exceeding 90% actual participation rates remain very low, with one study finding only 3.3% of nurses registered and participating in the scheme (Oladugba et al., 2024). Furthermore, patient satisfaction with NHIS services has been shown to be significantly associated with the interpersonal skills and communication of healthcare providers domains in which nurses play a primary role (NIH, 2024). However, limited empirical evidence exists on the specific factors that facilitate or hinder nurses' engagement with NHIS, particularly in southeastern Nigeria (Akinyemi et al., 2021; Alawode & Adewole, 2021).

Studies from other low- and middle-income countries (LMICs) revealed similar patterns of provider engagement challenges with health insurance schemes. In Ghana, the National Health Insurance Scheme (NHIS) faced provider-related barriers including delayed reimbursement, inadequate drug supply, and limited provider training, which collectively reduced healthcare worker motivation and participation (Alhassan et al., 2016; Fenny et al., 2021). Similarly, in Kenya, healthcare providers identified complex claims processing, insufficient capitation payments, and lack of provider involvement in policy design as key obstacles to effective participation in the National Hospital Insurance Fund (NHIF) (Barasa, 2018)). In Tanzania, community health insurance schemes were hindered by healthcare workers' limited understanding of benefit packages and inadequate institutional support (Kapologwe et al., 2020). A systematic review of health insurance provider participation in sub-Saharan Africa identified consistent themes: training deficiencies, payment delays, drug stock-outs, and weak grievance mechanisms (Uzochukwu et al., 2020). These international experiences corroborate the present study's findings and highlight that provider engagement challenges are not unique to Nigeria but represent systemic issues in LMIC health financing reforms. The comparative perspective suggests that addressing provider barriers requires multidimensional interventions including training, financial incentives, and participatory governance structures (Mladovsky et al., 2022).

In this study, we conceptualize facilitators as factors that encourage or enable nurses to participate in the NHIS. These include individual level factors such as knowledge of the scheme's benefits, positive attitudes, and perceived value of one's role, as well as organizational level factors such as management support and adequate training (Alawode & Adewole, 2021). Barriers are factors that impede participation. We further distinguish between individual barriers (e.g., high workload, lack of incentives, non involvement in decision making) and organizational barriers (e.g., inadequate drug supply, poor grievance mechanisms, complex enrollment procedures) (Akinyemi et al., 2021). The dependent variable in this study is nurses' participation in the NHIS, measured as self reported engagement with scheme related activities. The independent variables include the identified facilitators and barriers, as well as demographic characteristics such as age, gender, educational qualification, cadre, years of experience, and area of service.

This study, guided by the Health Belief Model (HBM) (Janz & Becker, 1984), aimed to assess the facilitators and barriers to NHIS participation among nurses at Chukwuemeka Odumegwu Ojukwu University Teaching Hospital (COOUTH), Awka, Anambra State. Specifically, we sought to identify the facilitators that promote participation, and to assess individual and organizational barriers that hinder participation.

METHODS

Study Design and Setting

A descriptive cross sectional survey was conducted at COOUTH, Awka a tertiary teaching hospital in Anambra State, Nigeria. The health facility obliges as a transfer center for both public and private hospitals in that area. A cross-sectional design was chosen because it is suitable for assessing the prevalence of facilitators and barriers at a single point in time without requiring longitudinal follow-up (Creswell & Creswell, 2018).

Population and Sample

The target population comprised approximately 400 registered nurses permanently employed at COOUTH during the study period. Registered nurses with at least six months of continuous employment at COOUTH and who were directly involved in patient care or NHIS-related activities were included in the study. While nurses on extended leave (e.g., maternity leave, study leave exceeding three months), those who were under disciplinary action and those who declined to provide informed consent were excluded.

A sample size of 200 was determined using Taro Yamane formula with 95 percent confidence level and 5 percent margin of error (Yamane, 1967). The multistage sampling method was used: simple random sampling was applied to select the wards; stratified random sampling was applied to select nurses in the selected wards according to cadres to represent all nursing ranks.

Data Collection Instrument

A structured questionnaire was designed that is self-administered. It had four parts (A) demographic characteristics, (B) facilitators (5 items), (C) individual barriers (6 items), and (D) organizational barriers (7 items). The answers were on a 5 point Likert scale (Strongly Disagree=1 to Strongly Agree=5). The questionnaire has been based on the already tested NHIS studies and adjusted to the local context.

Validity and Reliability

A panel of five nursing experts (three PhD holders in Nursing, two senior nurse administrators) evaluated content validity. The relevance of each item was rated on a 4-point relevance scale (1= not relevant to 4= highly relevant). The Content Validity Index (I-CVI) of the item level was between 0.80 and 1.00 and the Content Validity Index (S-CVI) of the scale was 0.92, which is excellent content validity (Polit and Beck, 2006).

The face validity was determined by reviewing ten registered nurses (not involved in the actual study) who rated the clarity, readability, and comprehensiveness. Some slight wording changes were done according to their feedback.

Internal consistency was evaluated by carrying out a pilot test on 20 nurses of another tertiary hospital, Nnamdi Azikiwe University Teaching Hospital, Nnewi. The alpha of Cronbach was 0.84 which is good reliability (Nunnally and Bernstein, 1994). Afterwards, the Cronbach alpha was recalculated after data collection of the entire sample (N=184) and was still 0.86, which confirms high internal consistency of the final sample.

Data Collection and Analysis

The data were collected in the period between July and October, 2025. Questionnaires were given out and collected in the field with a 92 percent response rate (184 out of 200). No data were missing and all the returned questionnaires were completely filled. Analysis of data was done in SPSS version 28. Means, frequencies, percentages (descriptive statistics) were calculated. Mean scores were interpreted as: 4.21–5.00 = Strongly Agree/High, 3.41–4.20 = Agree, 2.61–3.40 = Neutral, 1.81–2.60 = Disagree, 1.00–1.80 = Strongly Disagree. As the study did not test any a priori hypothesis, no inferential statistical tests were performed.

Ethical Considerations

Ethical approval was got from Anambra State College of Nursing Sciences Nkpor Ethical Review Board with Approval Number ANSCONS/NK/ETH/08/2025/01. Participants gave informed written consent. No identifiable information was gathered and confidentiality was ensured. The study adhered to the ethical principles of the Helsinki Declaration of 1975, as revised in 2013.

RESULTS

Demographic Characteristics

Table 1. Demographic Characteristics of Respondents (N=184)

Demographic Variable	Category	n	%
Age (years)	18–27	32	17
	28–37	68	37
	38–47	60	33
	48 & above	24	13
Gender	Male	72	39
	Female	112	61
Marital Status	Single	76	41
	Married	100	54
	Separated	8	4
Educational Qualification	RN	48	26
	RM	16	9
	RPHN	4	2

Demographic Variable	Category	n	%
	<u>B.N.Sc.</u>	92	50
	<u>M.Sc.</u> Nursing	16	9
	PhD Nursing	8	4
Nursing Cadre	NO I	28	15
	NO II	88	48
	SNO	48	26
	CNO	12	7
Years of Experience	<1 year	4	2
	1–5 years	96	52
	6–10 years	56	30
	11–20 years	24	13
	>20 years	4	2

Most of the respondents were young to middle aged adults (28-47 years, 70%), female (61%), married (54%), and had a Bachelor of Nursing Science degree (50%). The biggest cadres (48%) were nursing officer II, which is the common hierarchical structure in Nigerian tertiary hospitals. The participants were relatively early in their career with 1-5 years of experience (52%). The fact that NO II prevails implies that the results are especially applicable to frontline employees who have the highest number of patients to attend to.

Facilitators of NHIS Participation

Table 2. Facilitators of NHIS Participation Among Nurses (N=184)

Item	Mean	Remark
I am motivated to participate because I understand its benefits to the healthcare system	4.39	Agree
Participation helps improve access to healthcare for patients	4.35	Agree
I feel my role as a nurse is valued in implementation of NHIS policies	4.35	Agree
My hospital/management supports nurses' involvement in NHIS activities	4.13	Agree
I have received adequate training on how NHIS operates	3.96	Agree
Mean of Means	4.24	Agree

All the five facilitators scored higher than the agreement threshold (≥ 3.41), as indicated in Table 2. The greatest mean (4.39) was in learning about NHIS benefits to the healthcare system, and closely in line with it, there was better patient access and sense of being valued (both 4.35). This implies that the scheme has an intrinsic motivation to nurses, as it enhances patient outcomes, and that nurses are motivated by their professional role. Other positive scores included management support (4.13) and training (3.96), which were not as high, which means that the institutional support could be enhanced. The mean of means (4.24) in general proves that, as a group, these factors are very strong motivators to participate.

Individual Barriers

Table 3. Individual Barriers to NHIS Participation (N=184)

Item	Mean	Remark
I am not involved in decision making or planning related to NHIS activities	4.15	Agree
High workload prevents me from effectively handling NHIS responsibilities	4.09	Agree
There are no incentives or rewards for nurses who actively participate	3.96	Agree
I lack sufficient training on how to engage with NHIS processes	3.74	Agree
I find NHIS administrative procedures too complex or time consuming	3.63	Agree
Inadequate communication from management about NHIS updates	3.61	Agree
Mean of Means	3.86	Agree

Table 3 showed that the six individual barriers were all supported (means 3.61–4.15). The barriers that were most critical were non involvement in decision making (4.15), high workload (4.09), and lack of incentives (3.96). The three items are systemic and have a direct impact on nurse motivation and capacity. The last barrier is non involvement in decision making which implies that the nurses feel they are not part of the NHIS policy and implementation planning at the hospital level. High workload means that the current workload is already at its limit and there is no room to add additional NHIS related work. The lack of incentives (3.96) is an indicator of the lack of recognition or reward of those who do engage. Reduced yet agreement level barriers were lack of training (3.74), complicated procedures (3.63), and ineffective communication (3.61). The average of averages (3.86) validates that personal obstacles are a big impediment when combined.

Organizational Barriers

Table 4. Organizational Barriers to NHIS Participation (N=184)

Item	Mean	Remark
Supply of necessary medicines/equipment is often inadequate at NHIS facilities	4.15	Agree
The NHIS has poor mechanisms for addressing grievances and complaints	4.09	Agree
The time it takes to get enrolled in NHIS is excessively long	3.96	Agree
Enrollment and registration procedures are overly complex	3.74	Agree

Item	Mean	Remark
Range of diseases/treatments covered is too limited	3.63	Agree
Quality of care at NHIS facilities is lower than at private cash paying facilities	3.61	Agree
Attitude of healthcare providers towards NHIS patients is poor/disrespectful	3.07	Neutral
Mean of Means	3.75	Agree

Table 4 showed that six out of seven organizational barriers were Agree (3.614.15). The worst were poor medicine/equipment supplies (4.15), and poor grievance systems (4.09), which are systemic failures in NHIS accredited facilities. The length of time to enroll (3.96) and complicated procedures (3.74) imply bureaucratic inefficiencies that discourage nurses to enroll or refer nurses to the scheme. Confidence is further weakened by limited coverage of diseases/treatments (3.63) and perceived worse quality of care than in the private cash paying facilities (3.61). Interestingly, respondents were indifferent (3.07) regarding whether healthcare providers are in a poor attitude towards NHIS patients indicating that nurses do not view their colleagues as disrespectful to enrollees a good result. The average of averages (3.75) proves that organizational barriers are all detrimental to participation.

DISCUSSION

Facilitators of NHIS Participation

The findings revealed that understanding the benefits of NHIS to the healthcare system, helping improve access to health, feeling that the role of a nurse is valued in the implementation of NHIS policies, hospital management support, and having adequate training were the major facilitators promoting participation. Respondents agreed that all listed factors are facilitators. This supports the report by Akinyemi et al., (2021) who noted that the majority of respondents claimed that NHIS is a better means of settling healthcare costs than out-of-pocket payment and also thought the NHIS is a viable program.

Individual Barriers to NHIS Participation

The findings indicated that respondents agree that all the individual factors hinder their participation in the NHIS. These include non-involvement in decision-making, high workload, no incentives or rewards for nurses who are actively involved, lack of sufficient training, complexity of NHIS administrative procedures, and inadequacy of communication from hospital management. This finding aligns with Alawode and Adewole (2021), whose study identified awareness gaps and provider-related challenges as significant barriers to health insurance participation in Nigeria.

Through the HBM lens, individual barriers correspond most directly to the perceived barriers construct the individual's assessment of the obstacles to adopting a behavior. Non-involvement in decision making represents a structural barrier that undermines nurses' sense of control over their participation, effectively increasing the perceived cost of engagement. High workload and lack of incentives are practical barriers that diminish the perceived net benefit of participation, as the effort required outweighs the anticipated rewards. These findings suggest that interventions should focus on reducing perceived barriers by involving nurses in decision-making processes, addressing workload concerns through staffing adjustments, and creating tangible incentive structures all of which would lower the perceived barriers and increase the likelihood of participation according to HBM predictions.

Organizational Barriers to NHIS Participation

The findings showed that all six organizational barriers were identified by respondents as hindering nurses' participation. The most severe were inadequacy of the supply of medicines and medical equipment, poor NHIS

mechanisms for addressing grievances, and excessively long enrollment time. This study is in agreement with Alawode and Adewole (2021), whose findings showed that poverty, low income among potential enrollees, inability to pay premiums, poor knowledge about scheme benefit packages, lack of legal mandates, and poor service delivery like delayed issuance of authorization codes and drug stock-outs interfere with participation.

From the HBM perspective, organizational barriers can be understood as environmental factors that amplify perceived barriers at the individual level. Inadequate medicine/equipment supply and poor grievance mechanisms create systemic disincentives that make participation seem less beneficial, as nurses may perceive that the scheme cannot deliver on its promises. Long enrollment times and complex procedures represent administrative barriers that increase the effort required for participation, further elevating perceived barriers. The HBM suggests that these organizational-level factors must be addressed to reduce perceived barriers and enable behavior change. The finding that nurses were neutral regarding poor provider attitudes toward NHIS patients is notable within the HBM framework, as it indicates that nurses do not perceive their colleagues' attitudes as a significant barrier suggesting that interventions focused on provider attitudes may have limited impact compared to structural reforms.

Strengths of the Study

This study has several strengths. First, the high response rate (92%) minimizes non-response bias and enhances the representativeness of the findings. Second, the use of stratified random sampling ensured that all nursing cadres were adequately represented. Third, the questionnaire demonstrated strong content validity (S-CVI = 0.92) and internal consistency (Cronbach's $\alpha = 0.86$ on final sample). Fourth, the inclusion of mean of means in each table provides a concise summary of overall agreement levels for each domain. Finally, the study addresses a critical evidence gap regarding nurses' participation in NHIS in southeastern Nigeria, where limited empirical data previously existed.

Limitations

There are a number of limitations in this study. First, it was restricted to one teaching hospital, which can be a limitation to generalizability to other hospitals or regions in Nigeria. Second, cross sectional design does not allow causal inferences; it is only possible to describe associations. Third, the study relied entirely on self-reported Likert-scale data without any objective measure of actual NHIS participation which may introduce social desirability bias and limits the depth of conclusions regarding actual participation behavior.

CONCLUSION

Nurses in COOUTH, Awka, have realized the advantages of NHIS to patient care. Nevertheless, personal obstacles like absence of participation in decision making, excessive workload, absence of incentives and organizational obstacles like drug shortages, ineffective grievance management, lengthy enrollment seriously impede their participation. Policy reforms, resource allocation, and inclusive planning are critical in addressing these barriers to attain universal health coverage in Nigeria.

RECOMMENDATIONS

1. Hospital management should involve nurses in NHIS decision making committees.
2. Incentive schemes e.g., performance bonuses should be introduced for nurses actively supporting NHIS.
3. Regular training and refresher courses on NHIS processes should be mandated.
4. The NHIA should continue improving drug supply chains and establishing functional grievance mechanisms.

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