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PERCEPTION AND SATISFACTION WITH NATIONAL HEALTH INSURANCE AUTHORITY AMONG FEDERAL CIVIL SERVANTS IN BAUCHI LOCAL GOVERNMENT AREA, BAUCHI STATE

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Abstract

Background: Universal Health Coverage (UHC) is a cornerstone of the Sustainable Development Goals (SDGs), yet achieving it remains a significant challenge in Nigeria. Despite the transition of the National Health Insurance Scheme (NHIS) to the National Health Insurance Authority (NHIA) Act in 2022, the country continues to struggle with sub-optimal services under the scheme. This study aimed to assess the perception and satisfaction of Federal civil servants in Bauchi with the NHIA services.

Methods: This was a cross-sectional study where perception and satisfaction with the NHIA of 271 federal civil servants were assessed using a self-administered semi-structured questionnaire. Perception and satisfaction were measured using a four-point Likert scale. Data were analysed using SPSS version 27, where univariate, bivariate and multiple logistic regression were conducted to assess perception, satisfaction and predictors of both. A p-value <0.05 was considered statistically significant.

Results: A total of 169 (62.4%) of the respondents were registered with the NHIA, with 70 (41.4 %) being registered for less than a year. A good perception of NHIA was reported in 265 (97.8%), with 126 (74.6%) being satisfied with their services. Sixty- seven percent of the respondents feel there are no challenges with accessing drugs; however, 62.7% are not comfortable with the drugs prescribed. About half of the respondents (55.6%) are comfortable with the time spent accessing services and the quality of care that they receive. Males were 2.4 times more likely to be satisfied with NHIA services than women (AOR= 2.4: 95% CI=1.071-5.43).

Conclusion: High enrolment and positive perceptions among civil servants are undermined by systemic inefficiencies. To achieve UHC, the NHIA must address service fatigue and gender-based disparities to sustain long-term beneficiary satisfaction.

Keywords: *NHIA, NHIS, Universal Health Coverage, Satisfaction, Out-of-Pocket expenditure*.

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Introduction

Universal Health Coverage (UHC) represents a fundamental global objective to achieving the Sustainable Development Goals (SDGs). To align with this international mandate, the Nigerian health system has undergone extensive reforms to revitalize healthcare delivery, highlighting robust national health policies.[1] Central to these reforms was the establishment of the National Health Insurance Scheme (NHIS) under Act 35 of 1999, which was transformed to the National Health Insurance Authority (NHIA) Act on May 19, 2022.[2] Social Health Insurance (SHI) serves as a critical mechanism for achieving health equity by eliminating the need for Out-of-Pocket (OOP) payments at the point of service. Under the Nigerian NHIA, SHI is designed to bridge the gap for both formal and informal sectors, although the latter still remains a challenge.[3,4,5] The ultimate mandate of the NHIA is to prevent Nigerians from paying out-of-pocket for healthcare, ensuring equitable distribution of costs and maintaining high standards of clinical efficacy across all levels of the healthcare system. [6,7]

Despite the NHIA, Nigeria continues to grapple with significant barriers to achieving Universal Health Coverage. A primary concern is Catastrophic Health Expenditure (CHE), defined as healthcare costs exceeding 10% of household income, which forces families to sacrifice basic needs or deplete life savings.[8] While many African nations have expanded insurance coverage, for instance, Rwanda reaching 91%, Nigeria's progress remains sub-optimal, as Nigeria achieved only 5% coverage in over twenty years since the inception of its national health insurance scheme.[9,10] This is compounded by the 5% or less of the government allocation to health, a far cry from the 15% Abuja Declaration.[12] This probably explains why Nigeria is characterised by high infant mortality rates and a lack of universal equity, leading to its 2023 ranking by the WHO as 157th out of 191 member states.[11,12]

To improve the health indices in Nigeria, more individuals need to be insured and have confidence in the insurance health services. Although there has been a steady increase in enrolment, with over 21 million Nigerians enrolled, there are still challenges regarding the quality of services.[13] The long patient waiting time and unavailability of quality drugs lead to beneficiaries spending more than their expected 10% co-payment, often paying full price for medications outside the coverage net.[11] These systemic inadequacies, compounded by administrative inefficiencies and a lack of coordination, suggest that without a significant shift in perception and satisfaction among the core user groups, the SDG 3.8 target for 2030 remains out of reach for Nigeria.[14,15]

Understanding the perceptions and satisfaction of federal civil servants in Bauchi State is fundamental for identifying systemic and perceptual barriers that hinder the delivery of quality healthcare. Given that federal employees represent a primary, mandatory enrolment block, their experiences serve as a critical gauge for the NHIA's operational efficacy. Findings from this study will provide evidence-based insights to refine administrative policies, optimize service delivery, and enhance beneficiary confidence. Ultimately, addressing these localized challenges is a prerequisite for reducing the financial burden of catastrophic health expenditure on families, improving

regional health indices, and accelerating Nigeria's progress toward achieving UHC. This study therefore aimed to assess the perception and satisfaction with National Health Insurance Authority among federal civil servants in Bauchi Local Government Area of Bauchi State.

Methodology

Study Area

The study was conducted in the Bauchi Local Government Area, Bauchi State. The state is bordered by Kano, Jigawa, Taraba, Plateau, Gombe, Yobe and Kaduna. It has 20 local government areas (LGAs), with Bauchi LGA being the state capital and housing most of the civil servants in the state.[16]

Study Design

A cross-sectional descriptive study design was employed for this study

Study Population

The study population included all federal civil servants working in agencies in Bauchi LGA, Bauchi State.

Inclusion criteria

1. Federal civil servants who are registered with NHIA
2. Federal civil servants who are beneficiaries of NHIA for more than one year

Exclusion criteria

Those who fulfil the inclusion criteria but are healthcare workers. This is aimed at preventing bias from the relative ease of health workers in accessing health care due to familiarity with the health facility.

Sample size Determination

The sample size was calculated using the Cochrane formula, This employed the use of the prevalence of overall satisfaction with NHIA of 80.6% from a study in Jigawa.[17] 95% CI at 1.96 and a degree of accuracy of 5%. Thus, calculated sample size was 246 and subsequently 271 after considering a 10% non-response rate.

Sampling Technique

The selection of respondents was by multi-stage sampling.

Stage One: Simple random sampling technique by balloting was used to select 5 agencies out of the 26 Federal agencies in the state.

Stage Two: Proportionate sampling was used to determine the number of respondents from the selected agencies according to their staff strength. Subsequently, a systematic sampling technique using an interval of 3 was used to select the study respondents from each agency.

Instruments and data collection process

A self-administered, semi-structured questionnaire, adapted from studies conducted in Oyo[16] and Jigawa[17] was used to collect data from eligible and consented respondents. The study was conducted from 5th April to 30th May 2024.

Data Management

Good perception in this study was defined as a subjective impression based on the study participants' direct or indirect experience of NHIA services. It was measured using a four-point Likert scale. With points graded from one to four. Scores greater than 50% were regarded as a good perception of NHIA services, while scores below 50% were regarded as having a poor perception.

Good satisfaction with NHIA services was defined as being satisfied with the time spent in the facility, drugs, Lab services and quality of services. It was measured using a four-point Likert scale. With points graded from one to four. Scores greater than 50% were regarded as good satisfaction with NHIA services, while scores below 50% were regarded as having a poor satisfaction level.

Data Analysis

Data was analysed using SPSS version 27. Sociodemographic characteristics, perception and level of satisfaction were presented in frequency tables. Bivariate analysis was used to determine the factors associated with satisfaction. Independent binomial logistic regression was used to determine the crude odds of the variables while multiple logistic regression was used to determine the adjusted odds and predictors of satisfaction with NHIA services. A p-value of <0.05 and a confidence interval excluding the null value were considered statistically significant.

Results

Almost half (43,6%) of the respondents were aged between 23 to 37 years, majority (70.5%) were males and 63.1% of them had tertiary level of education (Table 1).

More of the respondents (62.4%) were registered in the National Health Insurance with fewer of them 22.5% registered more than five years (Table 2).

Table I: Sociodemographic Characteristics of Study Respondents

Characteristics	Frequency (n= 271)	Percentage (%)
Age (years)		
18-27	73	26.9
28-37	118	43.6
38-47	51	18.9
48-57	27	9.9
>58	2	0.7
Sex		
Female	80	29.5
Male	191	70.5
Marital status		
Single	77	28.4
Married	161	59.4
Separated	7	2.6
Divorced	23	8.5
Widowed	3	1.1
Religion		
Islam	209	77.1
Christianity	62	22.9
Level of education		
Primary	6	2.2
Secondary	94	34.7
Tertiary	171	63.1
Family Type		
Monogamy	170	62.7
Polygamy	101	37.3
Level of education		
Primary	6	2.2
Secondary	94	34.7
Tertiary	171	63.1
Family Type		
Monogamy	170	62.7
Polygamy	101	37.3

Table II: NHIA Registration Status Of Study Respondents

Variable	Frequency	%
NHIA Registration status (n=271)		
Registered	169	62.4
Not registered	102	38.6
Duration of registration with NHIA (n=169)		
<1 year	70	41.4
1-5 years	61	36.1
>5 years	38	22.5

The majority (97.8%) of the respondents had a good perception of the National Health Insurance (Table 3)

Table III: Perception of Respondents on NHIA and its Services

Variable	Frequency n-271	%
Perception of NHIA		
Good	265	97.8
Poor	5	1.8

Sixty- seven percent of the respondents feel there are no challenges with accessing drugs from the pharmacy in the respective facilities; however, 62.7% are not comfortable with the drugs prescribed. About half of the respondents (55.6%) are comfortable with the time spent accessing services and the quality of care that they receive (Table 4).

Table IV: Domains On Satisfaction with NHIA Services

Variable	Frequency (%) (n=169)
There is ease in accessing drugs with NHIA	
Yes	113(66.9)
No	56(33.1)
Health workforce for NHIA services is sufficient	
Yes	124(73.4)
No	45(26.6)
Time spent in accessing care with NHIA is ideal	
Yes	95(55.6)
No	74(44.4)
Quality of care with NHIA was ideal	
Yes	94(55.6)
No	75(44.4)
Comfortable with prescribed drugs	
Yes	63(37.3)
No	106(62.7)
Comfortable with Laboratory services	
Yes	109(64.5)
No	60(35.5)

More of the respondents (74.6%) were satisfied with the health insurance services compared to 25.4% who were not satisfied with the services (Table 5).

Table V: Satisfaction with NHIA Services

Variable	Frequency n-169	%
Satisfaction with NHIA services		
Satisfied	126	74.6
Not satisfied	43	25.4

More male clients were satisfied with health insurance services; male respondents were 2.4 times as likely to be satisfied as female respondents. CI (1.07-5.43). Respondents who had been registered for more than 5 years were 40% less likely to be satisfied compared to those registered for less than 5 years, though this was not statistically significant CI (0.24-1.61). Other variables such as age, level of education and marital status were not predictors of satisfaction (Table 6).

Table VI: Predictors of Satisfaction of NHIA

Variables	Satisfied n (%) (n=126)	Not satisfied n (%) (n=43)	cOR (95% CI)	aOR (95% CI)
Age (years)	37.5 (8.8)†	34.7 (8.2)†	1.04 (0.996–1.087)	1.05 (0.995–1.109)
Sex				
Female	27 (58.7)	19 (41.3)	Reference	Reference
Male	99 (80.5)	24 (19.5)	**2.90 (1.39–6.07)**	**2.41 (1.07–5.43)***
Years enrolled in NHIA				
≤ 5 years	79 (73.8)	29 (26.9)	Reference	Reference
> 5 years	47 (77.0)	14 (23.0)	1.23 (0.59–2.57)	0.63 (0.24–1.61)
Level of education				
Primary	4 (80.0)	1 (20.0)	Reference	Reference
Secondary	29 (64.4)	16 (35.6)	0.45 (0.05–4.41)	0.54 (0.05–5.99)
Tertiary	93 (78.2)	26 (21.8)	0.89 (0.10–8.35)	0.96 (0.09–9.74)
Marital status				
Unmarried	95 (74.8)	33 (25.8)	Reference	Reference
Married	31 (75.6)	10 (24.4)	1.08 (0.48–2.43)	1.42 (0.54–3.79)

†Mean and standard deviation

*Statistically significant finding: 95% confidence interval did not include 1.0, i.e., p <0.05

Discussion

This study observed that the majority of the respondents had registered with the NHIA, a finding that mirrors the high enrolment levels reported among civil servants in Ibadan.[16] While this indicates a high level of compliance within the formal sector, it stands in stark contrast to the national landscape, where Nigeria continues to struggle with limited enrolment rates among the general public and the informal sector.[18] Unlike federal civil servants who benefit from a streamlined, payroll-integrated contribution system, the broader population remains largely excluded due to the complexities of voluntary participation and a lack of awareness. This disparity highlights a significant hurdle in the transition from the NHIS to the NHIA, as the mandate for compulsory insurance has yet to translate into widespread coverage for those outside of government employment.

Almost all the respondents in this study had a good perception of the NHIA. This is similar to what was reported in a study conducted in Niger state and Oyo state, where the majority of the civil servants had a good perception of NHIA.[19,20] Such high levels of positive perception suggest that the advocacy and sensitization efforts by the NHIA and the Bauchi State Health Contributory Management Agency (BASHCMA) have been successful in communicating the benefits of the scheme. Our findings in this study, however, differed from those reported in a study conducted in Enugu among market women, where the majority had a poor perception of the health insurance authority. This contrast can be attributed to the difference in the study population, as most of the respondents in this study had at least a tertiary level education and expectedly have better health literacy, which in turn could influence the perception of health insurance.

Satisfaction with the NHIA was reported in about three-quarters of the respondents, a finding that resonates with a study conducted in Ibadan, where most participants similarly expressed satisfaction with the scheme's services.[21] However, this result contrasts sharply with findings from Ibadan, Sokoto and Abuja, where civil servants were found not to be satisfied with NHIA services.[22–24] This level of satisfaction suggests that the scheme is successfully mitigating CHE and fostering better health-seeking behavior by removing the immediate financial barriers to care. Specifically, respondents expressed satisfaction with the operational efficiency of the scheme, including the ease of accessing drugs, the sufficiency of the health workforce, reduced wait times, and the quality of laboratory services. Yet, a significant paradox emerged regarding pharmaceutical care: while the majority of respondents reported no challenge with access to prescribed drugs, a similar majority expressed being uncomfortable with the medications themselves. This suggests a perceived "quality gap," where drugs provided under the scheme are viewed as cheaper, generic alternatives or less effective than those available via out-of-pocket, private-pay options. This finding presents a critical public health implication; if enrollees perceive the clinical value of the scheme to be inferior, it may lead to sub-optimal treatment adherence or a return to unregulated self-medication. Ultimately, such a disconnect between accessibility and perceived quality threatens to undermine the primary objective of UHC by eroding patient trust in the system's clinical efficacy.

In evaluating the factors associated with satisfaction, this study identified sex as the primary significant predictors within the multivariable model. These findings align with observations from a study in Ibadan, that gender and experience with the health system often dictate how enrollees navigate and perceive SHI schemes.[21,22] The high level of satisfaction among certain cohorts suggests that the NHIA is effectively performing its role as a financial risk protection mechanism, which is essential for reducing maternal and infant mortality rates that are currently high in Bauchi State. By eliminating the need for out-of-pocket payments at the point of service, the scheme encourages more frequent and earlier health-seeking behavior, which is critical for the management of both communicable and non-communicable diseases. However, the significant drop in satisfaction among those registered for more than five years highlights a possible "service-fatigue" or a gradual erosion of trust as enrollees encounter recurring systemic challenges, such as the unavailability of preferred medications. If these operational gaps are not addressed, there is a risk of enrollee attrition or a return to self-medication, which would undermine the public health goal of ensuring equitable and sustainable access to quality care for all citizens.

Conclusion

This study concludes that while there is high enrolment and an overwhelmingly positive perception of the National Health Insurance Authority (NHIA) among civil servants in Bauchi LGA, actual satisfaction remains dependent upon the quality-of-service delivery. The scheme has proven effective in providing financial risk protection and fostering positive health-seeking behavior, yet significant challenges persist regarding the quality and availability of prescribed medications. The identification of sex and duration of registration as key predictors of satisfaction highlights the need for gender-sensitive service improvements.

Limitation of the study

There could have been bias in recalling events that occurred, especially for individuals who had accessed these services long before this study was conducted. This could affect their report on satisfaction and perception. However, more emphasis was placed on their last hospital visit.

Conflict of Interest: None declared

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Ethical Approval

Ethical clearance from the Medical Research Ethics Committee of the Ministry of Health, Bauchi, with approval number NHREC/040/11/19B/2021/066. Participation in the study was voluntary and contingent on the respondent's ability to understand and sign the informed consent form. Participants were guaranteed confidentiality

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