

Enrollees' Satisfaction with Health Service Delivery Under the Katsina State Contributory Health Scheme, Nigeria: Findings from a 2025 Cross-Sectional Survey

Abstract

Background: Client satisfaction is an important indicator of health system performance and sustainability of insurance programmes. This study assessed enrollee satisfaction with services provided under the Katsina State Contributory Healthcare Management Agency (KTSCHMA).

Methods: A cross-sectional survey was conducted among 1,379 enrollees (697 Formal Sector; 682 BHCPF). Data were collected using a structured SERVQUAL-based questionnaire and analysed using descriptive and inferential statistics.

Results: Overall satisfaction was moderate (50–54%). Highest ratings were observed in assurance and empathy, reflecting positive perceptions of staff courtesy, competence, and respectful care. Lowest ratings were reported in responsiveness and reliability, particularly waiting time, medicine availability, appointment delays, and limited 24-hour services. Knowledge of benefits and procedures was low, especially among BHCPF beneficiaries.

Conclusion: KTSCHMA has established a credible platform for healthcare access and financial protection. However, improvements in service efficiency, communication, enrollee education, and medicine supply systems are required

Short Report

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proportionate allocation and systematic random sampling across participating facilities. A structured interviewer-administered questionnaire assessed socio-demographic variables, knowledge of scheme benefits, referral experiences, administrative services, and SERVQUAL domains: tangibles, reliability, responsiveness, assurance, and empathy.

Data were analysed using SPSS version 25. Frequencies, percentages, means, chi-square tests, t-tests, and ANOVA were used. Statistical significance was set at $p < 0.05$.

Results

Demographic Category	Sub-Category	Percentage (%)
Age Group	18–25	10.0
	26–35	50.0
	36–45	25.0
	46–55	10.0

Introduction

State health insurance schemes are central to achieving Universal Health Coverage (UHC) in Nigeria. KTSCHMA was established under Katsina State Law No. 10 of 2018 to improve financial protection and equitable access to healthcare. Although enrolment has expanded substantially, evidence on user satisfaction remains limited. Satisfaction influences utilization, retention, trust, and willingness to recommend the scheme. This study assessed enrollee satisfaction, knowledge, and service experiences under the Formal Sector and Basic Health Care Provision Fund (BHCPF) programmes.

Methods

A facility-based cross-sectional descriptive study was conducted in 2025. Respondents were selected using

	56–65	5.0
Gender	Male	70.0
	Female	30.0
Education Level	Primary/Quranic	15.0
	Secondary	20.0
	Diploma/Degree	55.0
	Masters	10.0
Employment Status	Employed Full-Time	100.0
Monthly Income	Below ₦30,000	30.0
	₦31,000 – ₦50,000	20.0
	₦51,000 – ₦100,000	35.0
	Above ₦101,000	15.0
Enrollment Duration	< 1 year	15.0
	1–2 years	40.0
	3–5 years	30.0
	> 5 years	15.0

The respondents were predominantly within the productive age group of 26–35 years (50%), followed by those aged 36–45 years (25%), indicating a largely young and middle-aged population. Males constituted the majority of respondents (70%), while females accounted for 30%.

In terms of educational attainment, more than half of the respondents (55%) possessed a Diploma or Degree, with 10% holding a Master’s degree, reflecting a relatively educated population. All respondents (100%) were employed full-time, suggesting financial engagement and job stability.

Regarding income, the largest proportion earned between ₦51,000–₦100,000 (35%), while 30% earned below ₦30,000, indicating a mixed income distribution. Concerning enrollment duration, most respondents had been enrolled for 1–2 years (40%) or 3–5 years (30%), demonstrating moderate to long-term participation in the program.

Table 1: Socio-Demographic Characteristics of Enrollees

Indicator	Very Satisfied (%)	Satisfied (%)	Neutral (%)	Dissatisfied (%)	Very
Dissatisfied (%)					
Tangibles					
Cleanliness & Hygiene	40	44	10	4	2
Modern Equipment	35	45	12	6	2
Staff Uniforms	50	40	8	2	0
Comfort of Facilities	38	46	10	4	2
Clear Signage	32	48	12	6	2
Reliability					
Availability of Drugs	30	40	15	10	5
Availability of Prescribed Medicines	35	42	13	7	3
Accuracy of Diagnosis	40	44	10	4	2
Consistent Care Quality	38	46	10	4	2
Fulfillment of Appointments	42	44	8	4	2
Responsiveness					
Waiting Time to See Doctor	25	30	20	20	5
Emergency Response	30	30	12	26	2
Ease of Getting Appointments	15	44	10	29	2
Speed of Service Delivery	25	40	14	19	2
24-Hour Service Availability	10	28	20	40	2
Assurance					
Staff Courtesy	50	42	6	2	0
Staff Competence	48	44	6	2	0
Privacy of Medical Records	46	44	8	2	0
Confidence in Staff	44	46	8	2	0

Clear Explanations of Care	42	48	8	2	0
Empathy					
Listening to Complaints	44	46	8	2	0
Respect & Dignity	46	44	8	2	0
Special Attention	40	48	10	2	0
Understanding of Needs	42	46	10	2	0
Emotional Support	44	44	10	2	0

Table 2: Detailed Breakdown by Dimension

The SERVQUAL analysis revealed varying levels of enrollee satisfaction across the five dimensions of service quality.

Under the tangibles dimension, findings showed a generally high level of satisfaction among respondents. Cleanliness and hygiene of healthcare facilities were positively rated, with the majority of enrollees reporting being either very satisfied or satisfied. Similar positive perceptions were recorded for the availability of modern medical equipment, staff uniforms, comfort of facilities, and clarity of signage. Dissatisfaction levels across these indicators were minimal, indicating that the physical environment and appearance of service delivery points were largely acceptable to enrollees.

Regarding reliability, respondents expressed moderate to high satisfaction with the accuracy of diagnosis, consistency in the quality of care, and fulfillment of appointments. However, comparatively lower satisfaction was observed in the availability of drugs and prescribed medicines, where a notable proportion of enrollees reported dissatisfaction. This suggested that while clinical competence and continuity of care were perceived as reliable, medicine availability remained a challenge in some facilities.

The responsiveness dimension recorded the lowest satisfaction scores among all SERVQUAL components. Waiting time to see a doctor, emergency response, ease of getting appointments, speed of service delivery, and

availability of 24-hour services attracted higher levels of neutral and dissatisfied responses. In particular, 24-hour service availability and appointment scheduling recorded substantial dissatisfaction, indicating delays and limited access to timely care as key concerns for enrollees.

In contrast, the assurance dimension demonstrated very strong performance. A large majority of respondents reported being very satisfied or satisfied with staff courtesy, competence, confidentiality of medical records, confidence in healthcare providers, and clarity of explanations regarding care received. Reports of dissatisfaction in this domain were negligible, reflecting high trust and professionalism among healthcare workers.

Similarly, findings under the empathy dimension showed consistently high satisfaction levels. Enrollees positively rated healthcare staff on listening to complaints, showing respect and dignity, providing special attention, understanding patient needs, and offering emotional support. Very few respondents expressed dissatisfaction, suggesting that interpersonal aspects of care and patient-centeredness were strong features of service delivery under the scheme.

Overall, the SERVQUAL findings indicated strong performance in tangibles, assurance, and empathy, moderate performance in reliability, and relatively weak performance in responsiveness, highlighting critical areas for quality improvement interventions.

Question Description	Correct Response	Percentage Correct
Waiting period before beneficiary can access benefits	30–60 days	55.1%
Number of family members covered under formal sector program	One wife of the employee and up to four children under the age of 18.	17.5%
Maximum number of additional dependents allowed	Four (4) persons.	31.0%
How enrollee selects Primary Health Care (PHC)	The enrollee may choose any hospital/PHC accredited by the NHIA and registered by the Authority.	63.0%
Waiting period before changing PHC	After three (3) months.	27.1%
When beneficiary can start receiving services	If their name appears on the Authority's list of registered enrollees, along with valid proof.	35.2%
Where to receive treatment during emergency	At the nearest facility among those accredited by the NHIA and registered by the Authority.	12.5%

Whether beneficiary can add more persons to card	Yes, but with the Authority's approval following payment of the applicable fee.	47.1%
How to add extra dependents beyond initial limit	Upon payment of the fee determined by the Authority.	10.9%
Co-payment for medicines under formal sector program	10% of the total cost of medication.	81.5%

Table 3: Knowledge Assessment of formal sector beneficiaries

The knowledge assessment of respondents under the Formal Sector Program indicates a generally low level of awareness of scheme benefits and operational guidelines. With an average knowledge score of 26.3%, a median of 20%, and a mode of 10%, the results show that most beneficiaries possess only limited understanding of the program. Very few respondents (0.3%) demonstrated complete knowledge, while a notable proportion (7.6%) had no correct answers at all, reflecting widespread information gaps among enrollees.

program components. Respondents showed strong understanding of medicine co-payment requirements (81.5%), PHC selection procedures, and benefit waiting periods. However, substantial gaps were observed in critical areas such as emergency care access, family composition coverage, addition of extra dependents, and PHC change timelines. These findings highlight the need for improved beneficiary sensitization, simplified communication materials, and continuous education to enhance understanding and effective utilization of the Formal Sector Program.

Item-level analysis reveals uneven knowledge across

Indicator	Response Category	Frequency (n)	Percentage (%)
Ease of obtaining referral from PHC	Very easy	200	47.4
	Easy	152	36.0
	Difficult	51	12.0
	Very difficult	19	4.5
Time taken to complete referral form	Same day	228	54.0
	Within 1–2 days	91	21.6
	More than 3 days	70	16.6
	Not completed	33	7.8
Explanation of referral process by health workers	Explained partially	294	69.7
	Not clearly explained	104	24.6
	Not explained at all	24	5.6
Satisfaction with staff attitude during referral	Very satisfied	100	23.7
	Satisfied	276	65.4
	Dissatisfied	6	1.4
	Very dissatisfied	40	9.5
Promptness of care at referral facility	Attended immediately	269	63.8
	Attended after short wait	117	27.8
	Not attended	21	4.9
	Attended after unofficial payment	15	3.5
Quality of care at referral facility	Very good	162	38.4
	Good	189	44.7
	Fair	62	14.7
	Poor	9	2.1
Challenges experienced at referral facility	No challenge	313	74.1
	Minor challenge	75	17.8
	Major challenge	34	8.1
Payment requested at referral facility	No payment	323	76.5

	Small amount	77	18.2
	Large amount	22	5.2
Assistance from KTSCHMA helpline	Did not contact	353	83.6
	Helped	50	11.8
	Not helped	19	4.5
Overall satisfaction with referral services	Very satisfied	126	29.9
	Satisfied	147	34.8
	Neutral	82	19.4
	Dissatisfied	2	0.4
	Very dissatisfied	65	15.4
N = 697; n = 422 respondents with a history of referral			

Table 4: Findings on Referral Process Among Enrollees

The findings on the referral process indicated an overall positive experience among most enrollees who had a history of referral under the scheme. A large proportion of respondents reported that obtaining a referral from their primary healthcare facility was easy, with more than half indicating that referral documentation was completed on the same day. Satisfaction with the attitude and care provided by healthcare staff during the referral process was high, and most enrollees were attended to promptly upon arrival at the referral (secondary) facility. The quality of care received at referral facilities was also rated as good or very good by the majority of respondents.

Despite these positive outcomes, some challenges were

identified. Communication of the referral process was often incomplete, as many respondents reported that explanations provided by health workers were only partial or unclear. Additionally, issues related to responsiveness, such as waiting times, occasional demands for unofficial payments, and limited availability of 24-hour services, were reported by a subset of enrollees. Utilization of the KTSCHMA helpline during referral was low, although those who accessed it reported varying levels of support. Overall, while the referral system under the scheme functioned satisfactorily for most enrollees, the findings highlighted the need for improved communication, strengthened accountability, and enhanced responsiveness to further improve referral service delivery.

Indicator	Response Category	Frequency (n)	Percentage (%)
ID Card Possession (N=422)	Yes	390	92.4
	No	32	7.6
Place of ID Card Collection (N=422)	KTSCHMA Office	209	49.5
	Hospital Staff Desk	164	38.8
	At Registration Point	38	9.0
	Colleague's Workplace	11	2.6
Ever Updated Registration Details (N=422)	Yes	96	22.7
	No	326	77.3
Ease of Locating Update Point (n=96)	Very easy	37	38.5
	Easy	52	54.2
	Difficult	6	6.2
	Very difficult	1	1.0
Waiting Time Before Update Began (n=96)	Two weeks	17	17.7
	Under 1 month	27	28.1
	Over 1 month	37	38.5
	Do not remember	15	15.6
Staff Conduct During Update (n=96)	Very good	37	38.5
	Good	54	56.3
	Poor	4	4.1
	Very poor	1	1.0
Clarity of Update Process Explanation (n=96)	Very clear	47	48.9

	Some explanation	38	39.5
	Not clearly explained	9	9.3
	Not explained at all	2	2.0
Satisfaction with Speed & Quality of Update (n=96)	Very satisfied	32	33.3
	Satisfied	58	60.4
	Dissatisfied	6	6.3
Request for Unofficial Payment (n=96)	No	75	78.1
	Yes	17	17.7
	Prefer not to say	4	4.1
Issues Experienced During Update (n=96)	No issues	68	70.8
	Major issues	28	29.2
Overall Satisfaction with Update Services (n=96)	Very satisfied	33	34.3
	Satisfied	48	50.0
	Neutral	12	12.5
	Dissatisfied	2	2.0
	Very dissatisfied	1	1.0
Likelihood of Continuing with KTSCHMA (N=422)	Will continue	283	67.1
	Not sure	59	13.9
	No opinion	44	10.4
	Prefer another system	36	8.5

Table 5: Registration Update and ID Card Possession Among Enrollees

The findings showed that ID card possession among enrollees was high, with most respondents reporting that they had received their KTSCHMA identification cards, mainly from the Agency office or health facilities. However, only a small proportion of enrollees had ever updated their registration details. Among those who had updated their information, the update points were generally easy to locate, and staff conduct during the process was rated positively.

Despite these strengths, delays were reported in initiating updates, with many respondents indicating long waiting periods before the process commenced. Although the update procedures were clearly explained to most enrollees and satisfaction with the speed and quality of services was high, a notable minority reported experiencing challenges, including requests for unofficial payments. Overall satisfaction with update services remained high, and most respondents expressed willingness to continue their enrolment with the KTSCHMA.

Full Analytical Report: BHCPF Program KTSCHMA Client Satisfaction Survey (2025)

Category	Count	Percentage
Age		
26–35 years	161	23.61%
36–45 years	140	20.53%
56–65 years	123	18.04%

18–25 years	118	17.30%
46–55 years	88	12.90%
Above 65 years	52	7.6%
Highest Level of Education		
Qur’anic Education	213	31.23%
Secondary School	208	30.50%
University Degree	100	14.66%
Primary School	100	14.66%
No Formal Education	61	8.94%
Employment Status		
Self-employed	591	86.6%
Retired	48	7.0%
Student	43	6.3%
Monthly Income		
Below ₦30,000	466	68.33%
₦31,000 – ₦50,000	109	15.98%
₦51,000 – ₦100,000	47	6.89%
Above ₦101,000	32	4.69%

Table 6: Sociodemographic Characteristics (n=682)

The socio-demographic characteristics of respondents showed a diverse distribution across age, gender,

education, employment status, and income levels. The largest proportion of respondents fell within the 26–35-year age group, followed by those aged 36–45 years and 56–65 years. Younger respondents aged 18–25 years also constituted a substantial share, while fewer respondents were within the 46–55-year age group and those above 65 years.

In terms of gender, females constituted the majority of respondents, accounting for nearly three-fifths of the study population, while males made up just over two-fifths. Regarding educational attainment, a significant proportion of respondents had Qur'anic education or secondary school education. Smaller proportions reported having a university degree or primary school education, while less than one-tenth of respondents had no formal education.

The employment profile revealed that most respondents were self-employed, reflecting the dominance of informal sector participants within the scheme. Retirees and students constituted relatively small proportions of the study population. With respect to income, the majority of respondents earned below ₦30,000 per month, while smaller proportions reported monthly earnings between ₦31,000 and ₦50,000, and ₦51,000 to ₦100,000. Only a small fraction of respondents reported monthly incomes above ₦101,000, indicating that most enrollees belonged to low-income households.

Overall satisfaction with KTSCHMA services was moderate. Formal Sector respondents generally reported better experiences than BHCPF respondents.

Across both groups, assurance and empathy recorded the highest satisfaction scores. Respondents expressed confidence in staff competence, courtesy, confidentiality, and respectful treatment.

The weakest domains were responsiveness and reliability. Major concerns included long waiting times, delays in appointments, poor emergency responsiveness, inconsistent availability of medicines, and limited 24-hour services. These concerns were more pronounced among BHCPF beneficiaries.

Knowledge of scheme rules and benefits was suboptimal. Significant gaps were observed regarding waiting periods, dependent coverage, emergency access, and referral pathways.

Referral services were generally functional, although incomplete explanations and occasional unofficial payment requests were reported. ID card possession exceeded 92%, but registration update delays remained common.

Discussion

This study found moderate overall satisfaction among KTSCHMA enrollees. High ratings for assurance and empathy indicate that beneficiaries' value positive provider–patient interactions. Similar findings were reported in Anambra State, where assurance and empathy were major predictors of enrollee satisfaction [1]. These findings also align with the SERVQUAL framework, which emphasizes assurance and empathy as critical determinants of perceived service quality and patient satisfaction [2].

Long waiting times and medicine shortages identified in this study are consistent with reports from Ebonyi State and other Nigerian insurance settings, where delays and stock-outs reduced user satisfaction [3,4].

The poorer ratings among BHCPF respondents may reflect infrastructure and staffing constraints within primary healthcare facilities. National evidence on BHCPF implementation has shown variability in facility readiness and governance capacity across states [5].

Low beneficiary knowledge found in this study is particularly important because awareness influences utilization, adherence to referral pathways, and confidence in programme operations [6]. Continuous beneficiary education is therefore essential.

Overall, the findings suggest that KTSCHMA has built a credible platform for expanding healthcare access in Katsina State. However, sustained gains will depend on reducing waiting times, strengthening medicine supply systems, improving communication, and enhancing administrative efficiency.

Conclusion

KTSCHMA beneficiaries reported moderate satisfaction with services, especially staff professionalism and respectful care. However, long waiting times, medicine shortages, administrative delays, and low beneficiary knowledge reduced programme performance. Addressing these gaps will improve enrollee experience and strengthen progress toward Universal Health Coverage in Katsina State.

Recommendations

1. Strengthen beneficiary education using simple local-language materials.
2. Reduce waiting times through workflow redesign and appointment systems.

3. Improve medicine supply chain management across accredited facilities.
4. Digitize registration updates and complaints management.
5. Upgrade facility signage and essential equipment.
6. Train providers on communication and patient rights.
7. Strengthen accountability systems to prevent unofficial payments.

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