



Research

Healthcare providers' satisfaction with participation in private Health Insurance scheme in a city in the Southern Nigeria

¹Aloni-Alali M, ²Alali AA, ³Ogaji DS

¹Department of Preventive and Social Medicine, University of Port Harcourt, Port Harcourt, Rivers State, Nigeria.

²Department of Community Medicine, Rivers State University Teaching Hospital, Port Harcourt, Rivers State, Nigeria.

³Africa Centre of Excellence in Public Health and Toxicology Research (ACE PUTOR), University of Port Harcourt, Choba, Nigeria.

Corresponding author: A. A. Alali, Department of Community Medicine, Rivers State University Teaching Hospital, Port Harcourt, Rivers State, Nigeria; alionalali@gmail.com; +2348033421555

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Abstract

Background: Health insurance coverage in Nigeria is still very low as over 70% of health care expenditure is financed by out-of-pocket payment. Health care providers are critical participants in the private health insurance scheme, therefore, their perception and satisfaction with the scheme is fundamental in ensuring sustainability. This study assessed health providers' satisfaction with private health insurance scheme in Port Harcourt Rivers State.

Method: A descriptive cross-sectional study which engaged a two-stage sampling method to recruit 60 participating health facilities and 180 responding health personnel by simple random sampling at each stage. A structured, pretested interviewer-administered questionnaire was used to collect data on the levels of satisfaction with the four major domains of satisfaction viz; billing rate, payment models, HMO administrative processes and claims management. Data was analysed using of SPSS, version 26. Characteristics of the responding facilities were tabulated and compared. Level of satisfaction was deduced by Likert Scale according to the domains of satisfaction. Regression analysis with p-value was set at less than or equal to 0.05 was used to determine the predictors of satisfaction with participation in health insurance.

The level of satisfaction with negotiated billing rates, payment models, HMO administrative processes and claims management were analysed descriptively, and results were presented as means, standard deviation, frequencies and percentages, in tables, pie and bar charts.

Results: 68.3% of the respondents were females and 31.7% males. 37.8% were satisfied with billing rates, 76.1% preferred fee-for-service method of payment. 55.6% were satisfied with HMO administrative processes and 41.5% were satisfied with claims administration. Facilities that have been in

operations for more than 10years were 1.5 times more likely to be satisfied with their participation in private health insurance scheme [OR = 1.52; 95% CI = 0.07-0.65] p value = 0.01

Conclusion: Health care providers' satisfaction with participation in private health insurance scheme is barely above average. The HCWs were poorly satisfied with billing rates and claims administration by HMOs. There is a need to actively involve providers in the processes and operations of the health insurance scheme in Nigeria.

Keywords: health insurance, healthcare providers, satisfaction, Health Maintenance Organization, HMO, billing rates, payment models, Nigeria.



Introduction

Top on the agenda of health policymakers globally is the concept of Universal health coverage (UHC).¹ To achieve this in any health system, the issue of healthcare financing needs to be addressed. Most developed or high-income countries use health insurance as a means of financing their health system while developing or low and middle-income countries mostly use the out-of-pocket method which is an inefficient and detrimental method of financing a health system.² Hence, the World Health Organization (WHO) advocates for such countries to adopt health insurance as a means of achieving universal health coverage.³ Most of these countries are beginning to adopt health insurance however this is not without various challenges.⁴ In Nigeria, Health insurance coverage is still very low as over 70% of health care expenditure is financed by out-of-pocket payment. However, there has been some commitment to revert this trend through the National Health Act of 2014.⁵

The National Health Insurance Scheme (NHIS) which is now the National Health Insurance Authority (NHIA) is the governing body or regulator of health insurance in Nigeria. It was established under Act 35 of the 1999 constitution by the Federal Government of Nigeria. They provide social health insurance in the country and regulate private health insurance operated by health maintenance organizations (HMOs).⁶ The Nigerian health system allows HMOs to operate private health insurance. The stakeholders of the private health insurance scheme are the NHIA, the HMOs, the health care providers, the payers and the enrollees (users).⁷

Historically, healthcare providers have been the point of entry into the healthcare delivery system. Their knowledge, attitude, perception, and satisfaction are very important if the goals and objectives of health insurance schemes are to be attained. Due to the dynamics of health delivery, providers' assessment is needed in understanding issues inhibiting or enabling the end user's access to health care and to determine if value is gotten for the premiums paid for the insurance scheme. The providers are relied on by other stakeholders such as the NHIS and HMOs to ensure that services are rendered to the enrollees that visit them seeking for care according to the stipulated guidelines of the insurance policy. The enrollees on the other hand expect the provider to offer quality health services in a professional and conducive environment. The extent to which the health care providers meet this expectation is pivotal in ensuring satisfaction with the scheme which will

encourage continuous subscription and influence the populace to adopt the scheme.⁷

Health care providers' participation in the private health insurance scheme is an active, rigorous and continuous process. It is first initiated via an accreditation exercise where the NHIS and the HMOs inspect them for eligibility and determination of capacity to render services. This in turn leads to classification into primary, secondary and tertiary levels of health care providers. The accreditation process is repeated after a stipulated period of time to ensure the expected standards are being upheld by the provider. This re-accreditation exercise can lead to change of level.⁶ Participation also extends to the actual service delivery to the subscribers of the insurance scheme according to their chosen health care plans, interacting with the HMOs to ensure services that require authorization are duly authorized, negotiating tariffs to ensure good compensation or remuneration for services rendered and submitting claims to the HMOs for payment.⁷

The health care providers are an integral part of the private health insurance scheme. They have a direct interface with the enrollees or users. Their participation is key to ensuring the success of the insurance scheme. They provide health care services ranging from primary care to secondary care to tertiary care.⁸ The responsibilities of health care providers as stipulated by NHIS includes the provision of services according to the covered services of the insured ranging from availability of 24 hours services to provision of prescribed drugs, outpatient and inpatient services. They also have the responsibility of ensuring that the insured are satisfied when they receive care since a negative experience can distort the end user's perception of the health insurance scheme. Therefore, the providers have a great influence on the perception, adoption and satisfaction of health insurance scheme by the enrollees and ultimately the sustainability of the scheme.⁹

Several studies have been done to ascertain the effectiveness of the scheme, to know if the aim of the NHIS of providing health insurance to ensure the availability of quality and cost-effective healthcare services to the insured is being achieved. Results from such studies exposed areas of concern pointing to the health care providers. A study conducted by Sieverding et al on perspectives of health care providers in Ghana and Kenya identified some challenges from the providers as ambiguous accreditation processes, claims reimbursement delays, and poor comprehension of how



the insurance scheme works.¹⁰ A study done in Nigeria involving all the stakeholders highlighted other factors such as issues with approvals for services and the issuance of codes and tariffs.¹¹

Understanding the plight of the providers, their level of satisfaction and factors associated with their satisfaction is very vital in actualizing the health financing reform or specifically health insurance reform needed in the country.¹¹ There is a limited empirical study focused on the health care providers as it relates to their experiences with the private health insurance scheme. This study aims to fill this gap by exploring the perceived satisfaction of providers and ascertain likely factors associated with the level of satisfaction.

This research sought to assess health providers' satisfaction with participation in private health insurance schemes in Port Harcourt Rivers State through determining their level of satisfaction with four domains: billing rates (Tariff), health payment models (payment mechanism), HMO administrative processes, claims management, and to determine factors associated with health providers' satisfaction with participation in private health insurance schemes.

Method

The study was conducted in Port Harcourt, the capital of Rivers State. Port Harcourt is an oil-rich city located within the Niger Delta part of Nigeria. It has the second largest port in the country. Port Harcourt has an estimated population of 1,865,000 as of 2016.¹² The city sits over two Local Government Areas (LGAs), Port Harcourt City and Obio Akpor LGAs and it is fast extending into Eleme, Oyigbo, and Ikwerre LGAs of Rivers State. The study population comprised of health workers, heads of facility/facility managers, and HMO officers who have been actively involved in delivering health services to privately insured patients in the last three years. Participating health facilities from which respondents were chosen had to meet some criteria to be included such as the facility must be accredited by the NHIS for private health insurance and they must have been in the scheme for at least 3 years. Providers in the scheme that do not have enough patient/enrollee pool (less than 100) and Stand-alone health facilities like laboratories, eye clinics or dental clinics were excluded from the study.

This was a quantitative study with a cross-sectional design aimed at assessing the provider's level of

satisfaction with their participation in a private health insurance scheme. The sample size was calculated using Cochran's formula for cross-sectional studies. Proportion of health providers that accepted health insurance in a previous study was 36%,⁷ confidence interval of 95%, an acceptable degree of freedom of 0.01 then applying the finite population correction brought the minimum sample size to 58 health facilities.

A two-stage sampling method was used to select the participants of this study. Simple random sampling was used in the two stages to reduce selection bias. The first stage was to randomly select 60 health facilities from the 171 health facilities that meet the inclusion criteria. The list of NHIS accredited providers (Appendix 2) was used as the sampling frame from which a table of random numbers was used to select the health providers.

The second stage involved the random selection of three key staff (the facility manager, a doctor or nurse and the HMO officer) from each sampled facilities⁷ that are actively involved in health insurance activities for at least three years.

Data was collected using a structured, pretested, self-administered questionnaire developed by the author drawing ideas from existing tools from similar studies and was deployed paper-based. The questionnaire had four subsections: starting with a brief introduction of the study and the principal investigator. It also sought the consent of participants. The subsections include (1) Characteristics of the health facility by ownership (public or private), type, level of care, structure, staff, years of participation in health insurance and size. (2) Socio-demographic characteristics of the respondents and (3) level of satisfaction of the respondents according to the domains of satisfaction. The data was collected between May 2022 to August 2022.

Data was analysed using Statistical Package for Social Sciences (SPSS) version 26. Characteristics of the responding facilities were tabulated and compared. Level of satisfaction was deduced by Likert Scale according to the domains of satisfaction. Regression analysis with p-value was set at less than or equal to 0.05 was used to determine the predictors of satisfaction with participation in health insurance.

The level of satisfaction with negotiated billing rates, payment models, HMO administrative processes and claims management were analysed descriptively, and results were presented as means, standard deviation,

frequencies and percentages, in tables, pie and bar charts.

The responses from the four domains of satisfaction were categorized into satisfied and dissatisfied as follows; satisfied and very satisfied were merged as satisfied while neither satisfied nor satisfied, dissatisfied and very satisfied were merged as dissatisfied. A respondent who indicated satisfied in six or more responses out of the eleven was considered satisfied while those with less were considered dissatisfied.

Ethical approval for this study was sought from the University of Port Harcourt ethics committee, permission and consent were sought from the various heads of facilities or facility managers. The results of the study will eventually be communicated to the participants and advocacy to the appropriate authorities.

Results

Table 1: Characteristics of the respondents

Characteristic	Frequency (n= 180)	Percent
Age		
≤ 30 years	63	35.0
31 - 40 years	92	51.1
41 - 50 years	19	10.6
≥51	5	2.8
Gender		
Male	57	31.7
Female	123	68.3
Highest Educational Qualification		
SSCE/WAEC	6	3.3
OND/HND	44	24.4
First Degree	79	43.9
Masters/MBBS	45	25.0
PhD/Fellowship	6	3.4
Profession/Designation		
Medical Doctor	35	19.4
Nurse/Midwife	28	15.6
Pharmacist	10	5.6
HMO Officer/Health Manager	107	59.4
Marital Status		
Single	79	43.9
Currently Married	99	55.0
Widowed	2	1.1
Number of Years Spent in this position		
≤ 5	121	67.2

Characteristic	Frequency (n= 180)	Percent
6 - 10	44	24.4
≥11	15	8.4

From Table 1, the sociodemographic characteristics of the respondents showed that about 51.1% of the respondents were between ages 31 - 40 years, 68.3% of them were female, 43.9% of them had a first degree, 19.4% were medical doctors, 59.4% were HMO officers/Health Managers, while 21.2% were other health workers. Up to 67.2% had been in their current position for between 3 – 5years.

Table 2: Health Provider's satisfaction with Billing Rates and payment mechanisms

Characteristics	Frequency (%)
Tariff Negotiation	
Yes	160 (88.9)
No	18 (11.1)
Frequency of tariff revision	
Biannually	12 (6.7)
Annually	26 (14.4)
Every 2 years	32 (17.8)
3 to 5 years	50 (27.8)
More than 5 years	60 (33.3)
Level of satisfaction with billing rates	
Very satisfied	7 (3.9)
Satisfied	61(33.9)
Neither satisfied nor dissatisfied	63 (35.0)
Dissatisfied	40 (22.2)
Very dissatisfied	9 (5.0)
Level of Satisfaction with Capitation	
Very Satisfied	32 (17.8)
Satisfied	64 (35.6)
Neither Satisfied nor Dissatisfied	45 (25.0)
Dissatisfied	34 (18.9)
Very Dissatisfied	5 (2.8)
Level of satisfaction with Fee-For-Service	
Very Satisfied	23 (12.8)
Satisfied	81 (45.0)
Neither Satisfied nor Dissatisfied	52 (28.0)
Dissatisfied	13 (7.2)
Very Dissatisfied	11 (6.1)
Preferred method of payment	
Capitation	43 (23.9)
Fee-for-service	137 (76.1)

As seen in Table 2, 38% of the respondents were satisfied with the billing rates while 62% were dissatisfied. On satisfaction with

payment models or mechanisms, 47.2% of the respondents were either satisfied or very satisfied, 20.6% were neither satisfied nor unsatisfied and 17.2% expressed dissatisfaction with capitation method of payment. With regards to fee for service model, 57.8% of the respondents were either satisfied or very satisfied, 28.9% were neither satisfied nor unsatisfied and 13.3% expressed

dissatisfaction with fee for service method of payment. On the general question of irrespective of the model they are already using, which is their preferred model, up to 76.1% preferred fee for service as opposed to 23.9% who preferred capitation.

Table 3: Health Provider's satisfaction with HMO administrative processes

Characteristics	Very Satisfied	Satisfied	Neither Satisfied nor Dissatisfied	Dissatisfied	Very Dissatisfied
	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)
Authorization Process	31(17.2)	109 (60.6)	22(12.2)	18(10.0)	31(17.2)
Complaint Resolution	12(9.4)	84(46.7)	54(30.0)	24(13.3)	1(0.6)
Accreditation Process	7(3.9)	16(8.9)	129(71.7)	24(13.3)	4(2.2)
Referral Process	25(13.9)	111(61.7)	31(17.2)	10(5.6)	3(1.7)

On the assessment of provider satisfaction with HMO administrative processes, up to 75.3% of the respondents were either very satisfied or satisfied with referral system, 77.8% with Authorization processes, 56.1% with complaint resolution and 12.8% with accreditation process. 71.7% were neither satisfied nor unsatisfied with accreditation process as seen in Table 3. The Average satisfaction with HMO Administrative processes was 55.6 while 44.4 were dissatisfied.

Table 4: Showing Health Provider's satisfaction with Claims administrative

Characteristics	Very Satisfied	Satisfied	Neither Satisfied nor Dissatisfied	Dissatisfied	Very Dissatisfied
	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)
Ease of claims submission	31(17.2)	121(67.2)	19(10.6)	6(3.3)	3(1.7)
Speed of claims payment	10(5.6)	51(28.3)	65(36.1)	46(25.6)	8(4.4)
Level of claims denial/ short payment	3(1.7)	26(14.4)	62(34.4)	65(36.1)	24(13.3)
At Claims reconciliation processes	8 (4.4)	49(27.2)	70(38.9)	41 (22.8)	12(6.7)

Concerning the assessment of providers' satisfaction with claims administration, 86.1% of the respondents were either very satisfied or satisfied with the ease of claims submission, 36.1% with speed of claims payment, 17.2% with level of claims denial/short-payment and 33.3% with claims reconciliation process. 35% were neither satisfied nor unsatisfied with the speed of claims payment and 48.9 were either dissatisfied or very dissatisfied with the level of claims denial/short payment. The Average satisfaction with claims administration was 41.5 while 58.5 were dissatisfied (table 4).

Table 5 Facility factors associated with provider satisfaction

Characteristics	Crude		Adjusted	
	OR ^b (95% C.I)	p-value	AOR ^b (95% C.I)	p-value
Level of Health Facility				
Primary	-	-	-	-
Secondary	0.54(0.14-2.41)	0.15	0.31(0.247-2.14)	0.26
Primary & Secondary	0.15(0.49-2.75)	0.23	0.45(0.34-1.19)	0.16
Number of beds				



Characteristics	Crude		Adjusted	
	OR ^b (95% C.I)	p-value	AOR ^b (95% C.I)	p-value
Less than 10 beds	-	-	-	-
11 - 20 beds	0.27(0.36-4.77)	0.67	0.58(0.37-8.77)	0.47
Greater than 20 beds	0.30(0.71- 2.56)	0.15	0.57(0.79-3.92)	0.16
No. of years in Operation				
1 - 5 years	-	-	-	-
5.1 - 10 years	0.29(0.18- 3.16)	0.69	0.69(0.08-3.16)	0.46
>10 years	1.39(0.10-0.64)	0.04**	1.52(0.07-0.65)	0.01**
Staff Strength				
11 - 50	-	-	-	-
51 - 200	0.33(0.44-1.18)	0.19	0.26(0.41-1.46)	0.43
> 200	0.72(0.11-2.05)	0.29	1.33(1.14-3.76)	0.52

** p value < 0.05 is significant

The study showed that facilities that have been in operation for more than 10 years are 1.5 times more likely to be satisfied with their participation in private health insurance scheme. [OR = 1.52; 95% CI = 0.07-0.65] p value = 0.01. (Table 5)

Discussion

The study set out to determine the level of satisfaction of health care providers with their participation in the private health insurance scheme in Port Harcourt. Their level of satisfaction was assessed in four main domains: billing rates, payment mechanisms, HMO administrative processes and claims administration. The study also sought to identify the factors associated with this level of satisfaction.

More than half of the respondents were not satisfied with the billing rates or tariffs, although, the tariffs were mutually negotiated. Majority of the respondents admitted that the tariff was mutually negotiated while about a 10th stated that there was no place for mutual negotiation. Just under half of the facilities have had their tariffs reviewed in the last two years others were reviewed more than three years ago. This finding is higher than was found in the study by Willet in 2017¹³ where they stressed that healthcare providers are split on how satisfied they are with healthcare costs. In that study, just about one-third of the providers were dissatisfied with healthcare tariff rates. A good proportion of the respondents stated that the tariffs have not been reviewed in the last five years. If this study was conducted earlier, the rate of satisfaction may have been higher but the passage of time has brought up the need

for renegotiation of tariffs in the face of inflation and the hike in other economic indices.

In the cross-sectional study in Lagos state Nigeria,¹⁴ the low tariff was one of the highlighted inhibitors to participation leading to dissatisfaction and even discontinuation with the scheme. This brings to the fore the outcry of the public that providers will discontinue the scheme if appropriate service tariffs are not put in place. They went ahead to derive a minimum tariff that should be the least for health care services. If the healthcare provider's quest for a realistic tariff is not addressed, this could inhibit their ability to effectively perform their role. Tariff negotiation and frequent review in line with changing economic indices are therefore critical to the satisfaction of healthcare providers in participating in the scheme.

On payment models, the study observed two major types: capitation and fee-for-service. Irrespective of their preferred method, when asked about their level of satisfaction with each of the two mechanisms of payment, respondents were more satisfied with the fee-for-service model than the capitation model. This could be because fee-for-service pays for services rendered with a mark-up as opposed to capitation which pays a fixed amount per enrollee per month. Meaning that facilities with fewer enrollees may have their revenue mopped up by one bad case. Interestingly in a study conducted in Ghana,¹⁵ on the preferred payment mechanism, it was observed that the providers resisted both the capitation payment method and the fee-for-service model rather they prefer a customized payment model referred to as the "Ghana Diagnosis Related



grouping method". In this method rates/tariffs are agreed upon per diagnosis and are billed accordingly. To the provider, it is less cumbersome as all mini services relating to the diagnosis would have been factored in the cost. However, the observation in the study is in contrast to that done by Shafiu Mohammed et al in Nigeria¹⁶ where the providers were generally more satisfied with the capitation method of payment than the fee-for-service payment method.¹⁰ The difference could be attributed to the fact that the study focused on the national health insurance scheme rather than just the private insurance scheme. At the NHIS (Now NHIA) level, the pool is usually very large and tends to favour capitation method of payment.

It is critical for providers to have input when joining the scheme on what payment model suits them rather than compelling them to stick to what the insurance scheme offers. The options should be broadened as capitation may be preferable to some that would require cash flow before services are rendered. While others may prefer the intricacies of being free to treat and charge for services as against capitation where some providers may feel that there is not much flexibility, especially with changing cost of services.

On HMO administrative processes, this study revealed that the perception is that the accreditation process is cumbersome and requires more documentation than the health facilities can readily provide. This finding agrees with the results of a study done in Ghana and Kenya¹⁰ on providers' experiences with the health insurance scheme that showed that the healthcare providers in Kenya considered the accreditation processes complex and highlighted it as a major barrier to participation. However, those in Ghana did not consider it a major concern. However, in a study in Kaduna, Nigeria¹⁴ on performance evaluation of health insurance in Nigeria, providers were satisfied with the referral system and other administrative functions. Another study by Awolade¹¹ as an identified weak administrative processes as part of the challenges affecting the growth of the insurance system.

Concerning claims of submissions, majority respondents were very satisfied with the modalities of claims submission. This could explain the reasons why claims denial or short payment may be high as the HMOs usually have clearly spelt out ways of preparing and submitting claims. A breach of this process will often result in delays and in turn dissatisfaction on the side of the provider. This does not absolve the HMOs of delay

due to administrative bottlenecks. Hiring more qualified and better trained personnel as HMO officers will ensure less error in claims submission processes and prevent delays in reimbursement.

The study showed that providers had problems with delays in claims payment which affects their capacity to procure essential consumables and drugs. This is similar to findings from Kenya and Ghana where providers expressed dissatisfaction with delays in claim payment. Also elaborated in a research in Kenya and Ghana¹⁰ where most of the providers in that study highlighted long delays in claims reimbursement as a big barrier to participation and continuity in the scheme. Also, dissatisfaction with claims management was highlighted in the study Ghana¹⁷ also stressed that reimbursement of claims is prolonged which affects the operations of the providers. However, the other stakeholders of the insurance scheme in that study stressed that providers need to ensure claims submitted are genuine and with minimal error to avoid delays in processing and denial of bills. It is noteworthy that providers were more satisfied with the aspect of claims administration that had to do with their input which is preparing and submitting the claims. The aspect that depends on the other stakeholders like timely payment for services rendered, ease or reconciliation of payment when there is a difference, and faster resolution is where they are mostly dissatisfied.

The study showed that providers who have been in business for 10 years and above were significantly more satisfied with participating in private health insurance than those in business for less than 10 years. This could mean that the longer a provider relates with the HMOs and the private health insurance system, the more familiar they become with the processes leading to efficiency in the interactions between them and ultimately satisfaction. It could also mean that the older organizations have experienced old staffs that understand the processes. This finding points to the fact that provider satisfaction with the scheme can improve over time of being and interacting with the system.

On a wholesome analysis of a general satisfaction level with participation in the scheme, slightly above half of the respondents were generally satisfied and almost all of the respondents were still willing to continue their participation in the scheme. This shows that the providers derived some value from participation but could offer more as the challenges identified are looked into and addressed by the relevant stakeholders as the



case may be. The scheme may not be where it should be in terms of excellence and hassle-free processes but it still delivers value such that providers are willing to continue their participation.

Conclusion

The study assessed the level of satisfaction of providers with their participation with private health insurance in Port Harcourt, Rivers State. Findings from the study revealed that health-care providers benefited from their participation in the scheme. The providers showed dissatisfaction with the billing rates, they were more satisfied with the fee for service payment mechanism than the capitation payment mechanism and showed clear preference for the fee for service model. There was also major dissatisfaction with the HMO administrative processes and claims administration. Thus, the level of providers' satisfaction with the scheme is barely above average.

Recommendation: The finding of this study has widespread implications for policy makers, practitioners and researchers. Policy makers having this evidence of slightly above average level of satisfaction with the scheme, need to update the regulatory framework to address the concerns of the providers in a bid to improve their satisfaction with the scheme thereby transmitting that satisfaction to the enrollees and the overall improvement in health insurance adoption in the country. Word of mouth is still one of the most persuasive forms of advertisement. So, a satisfied provider will treat the enrollees well and the enrollees will in turn speak well about the scheme to other members of the society. These will inadvertently lead to better coverage.

Practitioners in the private health insurance space like HMOs need to better simplify their systems to satisfy their major clients – healthcare providers. This also holds promise for their business growth because the healthcare providers are more likely to recommend an HMO that they are satisfied with. Researchers in the field of health financing need to dig deeper into the operations of HMOs to come up with findings around better ways of premium determination, reduction in payment time etc to enhance the system and improve satisfaction.

The Healthcare providers need to be involved in the processes and operations of HMOs as regards tariff negotiation, claims administration to incorporate their

concerns and enhance satisfaction with their participation. This will in turn translate to better treatment of enrollees and eventually better uptake of health insurance. This is critical at this moment due to the current NHIA act mandating that all Nigerians must be compulsorily insured.

Limitations of the study: The scarcity of existing literature on the topic posed a challenge in developing a framework for this study. However, this limitation was overcome by employing established statistical methods to guide the exploration of different facets within the study. Additionally, collaboration with experienced researchers provided an opportunity to seek their expertise, review the various stages of the work, and validate its findings.

There was the concern of social desirability bias where respondents would want to give answers that will keep them in good light with the HMOs so as not to lose business. To combat this, anonymity was clearly communicated and assured that this study is purely academic and was not sponsored by any organization. A qualitative component to the study would have given depth to the conclusions reached by this study.

Ethical consideration: Ethical approval for this study was sought from the University of Port Harcourt ethics committee, permission and consent were sought from the various heads of facilities or facility managers. The results of the study will eventually be communicated to the participants and advocacy to the appropriate authorities.

Authors' contribution: MAA, AAA and DSO were involved in the conceptualization, planning and implementation of the study. Data collection team was headed by MAA. AAA reviewed the questionnaire and aided data collection. All authors contributed to the interpretation of the results and read and approved the final manuscript.

Conflict of interest: None declared

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