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Assessing the Factors that Contribute to Customer Satisfaction: A Case Study of National Health Insurance in Zambia - Chingola

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Abstract

Health insurance is an agreement between two parties in which there is a monthly contribution in exchange for medical expense coverage, which may cover part or all expenses. Implementing health insurance in most African countries has been met with setbacks due to minimal knowledge on the benefits of health insurance. Another challenge being faced is the customer satisfaction found in countries that have implemented the scheme. These factors range from lengthy waiting times, lack of courtesy, drug stockouts, among others. Since the implementation of the scheme Zambia, in the year 2019, there is limited literature available to find out the level of satisfaction the current members and beneficiaries of the scheme have been facing.

The study focused on customer satisfaction among Chingola residents in Zambia as the town is the sixth densely populated town in the country and is currently being served by only two nhima accredited institutions. Of the two facilities, only one offers comprehensive healthcare provision which was the focus of this study. The study used a mixed method approach of both qualitative and quantitative and had a total of 147 participants in the study.

Data was collected using an online Google docs analytic form, and convenience sampling technique was employed in order to have participants that willingly participated in the study. The qualitative responses were coded and analysed using thematic analysis.

The study found the customer satisfaction as 49.66% with a net promoter score of 1, these results showed that there were a significant number of people who were not satisfied with the current services being provided and hence the large number of detractors of the service. The results were comparable to similar studies done on a regional level. This means there is need to improve the service provision in Chingola district if the district is to achieve universal coverage health which is in line with the third sustainable development goal (SDG 3).

Introduction
Background of the study

In a competitive market and with the emergence of health insurance in Zambia, customer satisfaction is essential not only as a differentiation and strategic plan but also as a medium to promote easy access to health care. According to the United Nations, Sustainable development goal 3 is "Good health and well-being" (Guegan, *et al*., 2018). The SDG goal 3 has various targets which include: reducing the global maternal mortality ratio to less than 70 per 100,000 live births by 2030, end preventable deaths of newborns and children under five years by 2030, end the AIDS, tuberculosis, malaria (Budhathoki, *et al*., 2017) [8] and neglected tropical diseases by 2030 (Bennet James, *et al*., 2020) [5], strengthen the prevention and treatment of substance abuse by 2020, halve the number of global deaths and injuries from road traffic accidents by 2030, ensure universal access to sexual and reproductive health care services and achieve universal health coverage (Logie, 2023), including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and essential medicines and vaccines for all (Sustainable Development Goal 3, 2023) [36].

Universal health coverage refers to all people, of all ages having access to the full range of quality health services they need, when and where they need them without financial hardship. It covers the full continuum of essential health services, from health promotion to prevention, treatment, rehabilitation and palliative care across the life course (Abiiro & Allegri, 2015) [15]. This is to say that national health insurance is key in achieving universal health coverage globally. Statistics further reveal that

at the height of the COVID 19 pandemic in 2021, essential services were disrupted in 92% of countries, Zambia inclusive. This is because majority of the populace depend on government aided services and health insurance is a new phenomenon for most of these countries (World Health Organization, 2021) [35]. Zambia has for the past two decades, tried to establish and introduce a National Health Insurance scheme in line with the Universal Health Coverage agenda. In 2018, the national health insurance Act No. 2 of 2018 was signed, which birthed the National Health Insurance Scheme (NHIS) under the management of the National Health Insurance Management Authority (NHIMA) (NHIMA, 2023) [28]. In 2022, NHIMA reported that over 1.4 million Zambians registered under the health insurance scheme, with over 800,000 members having visited a NHIMA registered facility and over 360 million claims paid (Mwila, 2022) [27]. While the statistics are positive, the average Zambian still hasn't understood health insurance and the role it plays in achieving SDG goal 3 (Afriyie, et al., 2023) [2]. This study critically assessed factors of customer satisfaction of the National Health Insurance in Zambia.

Aim and Significance of the Study
The purpose of study was to assess factors affecting customer satisfaction. The study focused on the National Health Insurance in Chingola, Zambia. Philip Kotler (2000) defines customer satisfaction as "a person's feeling of pleasure or disappointment, which resulted from comparing a product's perceived performance or outcomes against his/her expectations. Patient satisfaction, identified as a good indicator for healthcare quality, encompasses a broad term referring to the extent to which an outpatient customer is content with the health services received from a particular healthcare institution (Al-Damen, 2017) [3] Customer satisfaction in health insurance is significant as it doesn't only boarder on general customer satisfaction and client retention rather it is also a measurement to access to quality good health and contributes to the attainment to SDG 3 which covers health and well-being for all ages.

Problem Statement
Health insurance schemes have been widely introduced during the last two decades in many African countries in order to advance the agenda of universal health coverage. Implementing health insurance schemes in many African countries is still a challenge. Nigeria implemented the national health insurance scheme in the early 2000's. Customer satisfaction in health insurance in Nigeria hasn't been at its optimal due to multiple factors such as minimal knowledge of the, benefits of insurance, members of the scheme have been denied full entitlements, poor attitude and behavior of service providers and insufficient literature on the benefits of health insurance among others (Shafiu Mohammed, 2011) [16].
Since national health insurance scheme was introduced in sub-Saharan countries like Ethiopia, studies have shown that while Ethiopia offers comprehensive health insurance to its registered members, there are still various loop holes in terms of customer satisfaction of health insurance. Both public and private providers provide health insurance, however the Ethiopian health agency is the public institution mandated to provide health insurance. However, just like Nigeria, clients accessing health insurance cited various

reasons for dissatisfaction. These included: drug stock out, lengthy waiting time, lack of client courtesy on care givers in the facilities and inadequate availability of diagnostic services (Mulugeta Tasew Haile, 2021) [14].
The national health insurance scheme in Zambia was introduced in 2019. The agency tasked to manage national health insurance is the National Health Insurance Management Authority (NHIMA). However, before 2019, various private insurance schemes have existed despite individuals (beneficiaries) having minimal knowledge on the benefits of health insurance.
Currently there is not much available literature on previous studies on customer satisfaction on the national insurance scheme. This study will therefore contribute to the body of knowledge by assessing factors affecting customer satisfaction on the national insurance scheme in Zambia.

Research Objectives
Main Objective
To assess factors affecting customer satisfaction on National health Insurance.
Specific Objectives
To find out the factors affecting customer satisfaction on National Health Insurance.
To assess the impact of factors affecting customer's satisfaction on utilization of National Health Insurance.
To examine the challenges in accessing health Insurance.
Research Questions
What are the factors affecting customer satisfaction on National Health Insurance?
What is the impact of factors affecting customer satisfaction on utilization of National Health Insurance in Zambia?
What are the challenges in accessing health insurance in Zambia?
Scope of the Study
This research was conducted in Chingola town of Zambia, which stands at a population of 252,000 according to 2022 census. This makes the town one of the top ten densely populated towns in Zambia. And currently has only two nhima accredited institutions, one being a clinic and the other a general hospital with a catchment area of. This study had a target population of the clients who were accessing the service at the general hospital and had an inclusion criteria anyone aged 18 years and above, regardless of employment status and income level and had been on nhima for atleast 6 months. This is because for one to access the services in Zambia, they have to have consistently contributed to the scheme for a minimum of four months.

Materials and Methods
The research study used a mixed-method design incorporating both qualitative and quantitative research methods and used a cross-sectional approach based on primary data collected from various individuals that are currently registered under NHIMA services or have at one point in their lives used NHIMA services. Primary data was collected using an online structured questionnaire and was distributed to the participants after ethical clearance.

Research Approach
This research took an abductive approach as it brought out he many challenges that were being faced by other African countries and also understood which gaps were brought out in the research and policy implementation of nhima services.

It went a step further to bring out the different strategies that the government of republic of Zambia has put in place to ensure that the national health insurance scheme is a success and universal coverage health is attained which is in line with the third sustainable development goal.

Study Site
The study was conducted in Chingola district on the Copperbelt province in Zambia. The figure below shows the map of the district.
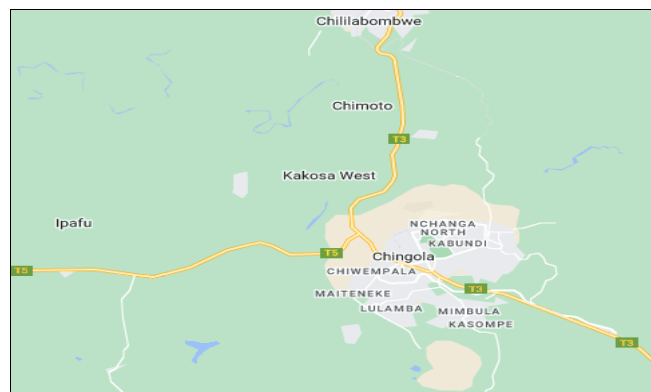

Image 1: Map of Chingola retrieved from map hill, 2024

The rationale for the study site is that Chingola ranks top ten among the densely populated towns in Zambia standing at 256,560 according to the 2022 census with a predicted annual population change of 2.79 percent. (city population, 2024) The town currently has one NHMIA accredited institution.

Sample Size
The approximate sample size used to obtain an inferential sample to assess customer satisfaction amongst individuals accessing NHIMA services was adopted from the Cochran formula formula.
The value of p used will be 0.1 adopted from a similar study done in Ghana (Owusu-Asamoah, 2019) [33]. This research aims at achieving a confidence interval of 95%, therefore, the value of '*Z' will be set at 1.96.* The margin of error, '*E'* intended, is 5 units.

$$n= (0.1)\ (1\text{-}0.1)\ (\tfrac{1.96}{0.05})^2$$

$$n= 138.3$$

Therefore, the required sample size was 139 participants.

Sampling Procedure
The study used a convenience sampling procedure to pick the participants who were willing to take part in the study and because the target total population of patients currently on Nhima in Chingola could not be determined.
Inclusion Criteria
All Chingola residents registered under the NHIMA scheme.
All those aged above 18 years of age and below 60 years of age.
All those that have used NHIMA services for at least 6 months.
Exclusion Criteria
All those not consenting to take part in the study.

All those using other health insurance schemes aside NHIMA.
All those have been registered under NHIMA services for less than 6 months.

Data Collection and Analysis
Information relevant to the study was collected using semi structured questionnaire distributed uniformly to the all the participants on Nhima who met the criteria after consenting to participate.The data was transferred into Microsoft Excel for data cleaning (removing the duplicate responses), coding to ensure accuracy and minimise errors.
Analysis was done using excel spreadsheet.

Validity and Reliability
Validity in this research was ensure by being transparent about the research process and main objectives of the research, to ensure the participants understood and made a decision to willingly participate in the research, there were no merits and demerits in taking part in the research. A rapport was built to ensure the participants were free to fill in the questionnaire without them feeling judgemental.
Each participant of the study received the same questionnaire which was assessed by colleagues to make sure the questions were fit for the intended purpose of the research and were time bound.
The research was further conducted in a real world environment-the hospital setting. This makes it easy to generalise to other real world situations and produce similar results, this also ensured that the research was relevant to the people being studied.
The questionnaire has both likert scale questions as well as an open ended question to get the views of the participants that could not be captured by the scale.

Results
This section focused on the findings of the findings of the research and their interpretation in tabular and appropriate charts for interpretation. The findings are grouped into background variables, experience with nhima, utilisation of nhima aswell as the recommendations from the participants of the study.
*Background Variables*

| Variables	Respondents	Percentage
Age		
18-25	20	13.6
26-35	71	48.3
36-45	34	23.1
46-55	12	8.2
Above 55	10	6.8
Sex		
Male	73	49.7
Female	74	50.3
Employment		
Not in employment	52	35.4
Employed	95	64.6
Monthly Income (ZMW)		
<1000	17	11.6
1000-10000	63	42.9
10000-20000	15	10.2
>20000	14	9.5
Prefer not to say	38	25.9

The majority of participants in the study were aged between 26-35 years of age represented by a percentage of 48.3% of

the total participants with an almost equal distribution from both genders i.e 49.7%(73) male and 50.3%(74) female. 35.4% of the participants were not employed and 64.6% were employed with the majority earning between K1000-K10000, the least number of respondents were participants earning more than K20000. National insurance at is currently one percent of the basic pay for those who are employed meaning the majority of the participants in the study were low to middle income earners, with Zambia being a low-middle income country, this means if generalised, a similar pattern of respondents would be seen in different parts of the country as well as at national level.

**Experience with Nhima Services**
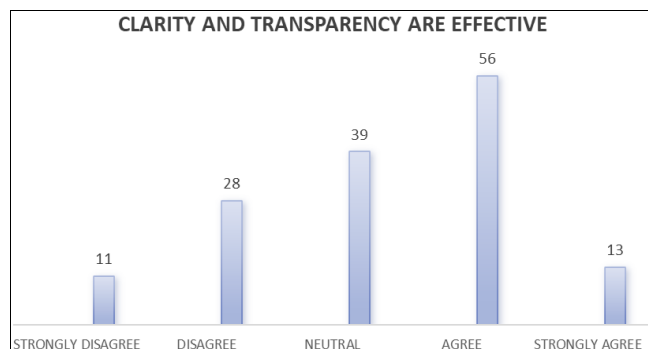
56 participants agreed with to the communication services being transparent and effective while 11 strongly disagreed meaning in there was a good communication between the healthcare providers and the residents accessing the nhima services in the district. Communication is one of the important factors affecting customer satisfaction, especially in healthcare, the clients accessing the hospital have the right to understand issues pertaining to their health so that they can make well informed decisions about the course of management and treatment course. Transparency is key and the insurance scheme should disclose what is being offered and measure it against the clients' expectations.
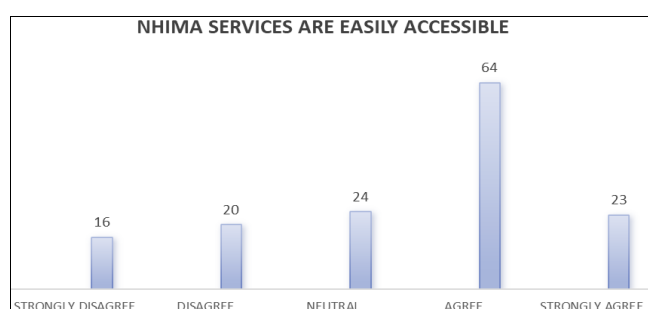

Access to healthcare remains one of the barriers to access quality healthcare even in the absence of insurance, especially in low to middle income countries in Africa, Zambia included. The 2022 census revealed that majority of Zambians are actually currently in the rural areas of the country. Chingola is one of the densely populated towns in the country and is along the line of rail and has the international road that leads to the bordering towns with the Democratic republic of Congo. This means there are a lot of trading activities in addition to the mining activities that the town is known for. The population in Chingola is dynamic as it also serves the many people who come for trade within

the country and internationally. This is why it is important for the town to have easily accessible services in the country. While majority (64) of the participants agreed to the services being easily accessible 16 still strongly disagreed to this and the neutral participants become a barrier to policy formulation as it is difficult to put in measures that will satisfy an unknown group.
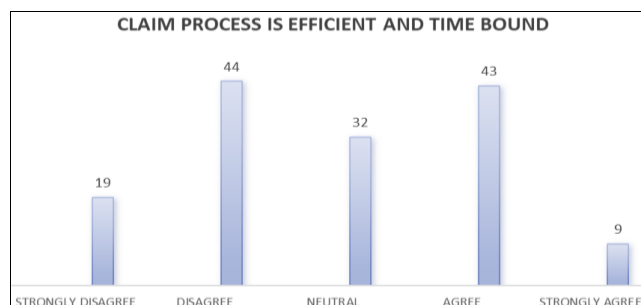
Literature has revealed that majority of clients are usually satisfied with insurance services when they give mental peace. Clients want to understand that as long as they have paid for the insurance, accessing the services should not being more mental stress. There needs to be quick access and claim on services whenever there is need. Unless, a person has a chronic illness, they need to be covered timely in case of emergent care and unforeseen circumstances such as road traffic accidents which are one of the leading causes of mortality in the world. 44 participants disagreed with the claim process being efficient and time bound. This is an area of improvement for the policy makers.
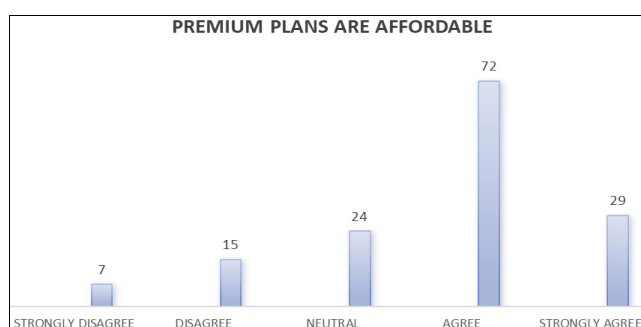
Qualitative analysis
Qualitative responses were collected from an open ended question, the responses were grouped into six broad categories. These were sensitisation, improved services, increased infrastructure, digitalising the system, no need to improve the services and having tiered system, these were assigned codes from 1-6 respectively and frequency of each of the responses has been shown in the table below.
Each respondent was assigned a unique entry number into the database and would be identified as R1 through to R147.

Recommendations from Participants of the Study

	n	Percentage
Senstisation	8	5%
Improved Services	55	37%
Increased Infrastructure	49	33%
Digitalise System	12	8%
No Response	17	12%
Tier Services	6	4%

More sensitisation was needed especially in peri-urban and rural areas of the district. R1 recommended that *more sensitisation especially in rural areas was needed,* a similar view point that was shared by R5 who asked *to make it more accessible even for people who are not in formal employment to subscribe for the scheme.* R30 stated that *communication and well articulation to the community* needed to be done. In addition to this, R48 recommended that the scheme *keep promoting using different forms* such as the media, community engagement, and so on.

Increasing sensitisation increases service utilisation and retention of clients if they are satisfied with the service provision. This would in turn require for an increase in the manpower, services and either expansion of manpower or roll out of the services to other facilities. R9 recommended *adding more services to their packages(most dental services are not covered), secondly, I would also wish to see an improved turn around time of results and also a smooth flow of services from one point to the other, there has been too much delay in providing services.* R20 stated, *I recommend they include all health services and not selected services,* Which will require expansion of the services to other facilities within the district. Residents of the district have various conditions and may need different levels of treatment and medical attention, including all services caters for the needs of all the residents, this was the recommendation by R45 who stated that *NHIMA should not be selective on the health care packages it can offer as that is burdensome for those who depend on NHIMA to help cover their healthcare expenses.* R63 stated that the *services covered should be extended to have broader coverage especially on surgical procedures.* R142 stated that *their services must be offered by local clinics* especially for those with minor ailments that may not require specialised care. R76 suggested to a*dd nhima services to more institutions to de-congest government institutions.* R87 went further to suggest that the services should *go to other clinics like Chawama clinic to reduce the long queues* while R117 went a step further in suggesting not just an increase or roll out to other health facilities but to p*rovide more medication, more outlets as one hospital too much congestion, even out to the clinics.* Health facilities are categorised into different levels according to the service provision that it can offer and also determines the type of human resource that is found. Including clinics would help de-congest the hospital but the clients would still require referral to the higher level if specialised treatment was to be required. R66 said to *improve on creating awareness to the public about their services, they should establish their own hospitals.*This sentiment was not shared by R47 who said to *let nhima services be offered in all government hospitals and clinics before taking it to private hospitals which are charging very high cost of services which is a danger to the funds liquidity of the scheme.* R129 felt the need to maintain the private public partnership by allowing the scheme to *put funds in emergency account when there is an emergency, the funds are used to pay for medical services elsewhere.* This approach takes the out of pocket for hospital which is incurring the cost of the service. A number of respondents were willing to either pay more for the service or have a tiered approach to the services being provided. R2 recommended that *people should be able to decide which service they want nhima to cover and how much i.e have different levels of nhima to pick from*, R67 said to *introduce*

premium packages so that it can be accessed in private hospitals and clinics. Another alternative to this recommendation would be what R69 echoed, *I recommend nhima to introduce categories like pro and premium services* or R61's recommendation *for the minimum monthly contributions to be increased to k50 or k100 so that it can properly carter for medical bills because NHIMA doesn't cover for everything and this can help reduce such limitations to heath care access.* This approach will enable clients to have ease of access as they will be able to understand what each package offers and will reduce over expectations.

Most clients prefer accessing the services that are quick and have ease of access, with the coming in of the digital age, there has been a call to embrace digital in the health sector inclusive. R6 said *the process of accessing should be more digitalised for easier access of the beneficiaries* of the scheme, this means the hospital database has to have data records that are complete and can be retrieved at any point when needed. R8 s*tated that collection of proper data for clients, may clients get stuck because of it,* especially during verification process. Having good network and enough equipment to enable smooth running of the healthcare services, R4 said to *buy what is needed, these hospitals don't have the necessary equipment to help.* R41 stated *more laptops to use* were needed whilst R90 generally suggested *they improve on their services* and have an *approval tracking system for applications involving specs* as stated by R18. Having these systems in place will reduce the turn around time for most services, R10 stated that *they should have a time frame for delivery of services as soon as it is possible.* Having access to services in a timely and easy manner makes clients more satisfied with the service provision and was summarised by R94's response to the question; *on the registration, they should employ more people, more chairs for people to sit on, improve the care services as there is no difference between low cost and nhima, there is need for team work, increase the spaces for people to sit on and hygiene and also clean toilets as it is a paid for service.* R64 said *providing easily accessible services. Efficient and timely claim process and increase accreditation of pharmaceutical companies.* R74 shared a similar view stating that *nhima should fight hard to make sure all medicines are available in the hospitals because the money we pay should be used to purchase medicine.* R62 suggested *the processes be streamlined.* Streamlining services makes it easer to access services and reduce waiting and turn around time from registration all the way up to dispensary. R90 asked for the scheme to *improve the services,* which can be done through *online registration* as suggested by R34. R145 added to say *they should have so many offices for access* and have a shorter verification process. One way to have shorter verification process is to *work on their verification process that people must undergo every time they come to the hospital* (R126) and also *work on their registration process so that it can lessen the period people spend on the queue* R116. A digitalised and upgraded system needs good access to network, R106 said the *network is bad* and needs to be improved.

Drugs are among the mainstay of management and treatment of various conditions, necessitating the stocking of various types of medications for different ailments. R77 *all types of drugs need to be accessible in both private and government pharmacies* the clients that access the hospital

have the expectation *to have readily available medications (*R17) for dispensing. R16 recommended to *improve on drug, laboratory and drug services in government institutions,* R38 stated that *they should improve on acquiring drugs for patients, there are some drugs which nhima does not support.*, this can be done through continuous collaboration and partnership with pharmaceutical companies, R65 said *more pharmaceutical companies to work with nhima.*

An increase in the man power is also important R113 said to *improve infrastructure and staffing*, R103 said *to employ more nurses and doctors even more workers*. R79 suggested they should *employ more workers due to high number of patients at the hospital* and would reduce the waiting time as recommended by R80 who saw the need to *provide more doctors hence this will reduce the waiting time.*

Provider service attitude and courtesy plays a major role in customer satisfaction R36 suggested *the showing of politeness in one's attitude ad behaviour towards clients especially in the labour ward.* R99 said *they should consider following the queue when attending to the patients and not merely attending to the people they know first.* Health workers are required to treat every patient in an equitable manner and attend to those with immediate needs first. R12 stated that *workers should change their attitude towards people they are attending to.*

While some clients accessing the service had recommendations on how the service could be improved on, a number of respondents were satisfied with the current services being offered by the scheme. R92 responded that *they should continue with the services that they are offering*, R11 added that *the services are just fine the way they are, they are willing to work*. Furthermore, R109 said *they are working very well* whilst R57 said to *increase the age limit for the beneficiaries* so that they can benefit from the services being offered.

Other respondents had recommendations towards the management of the scheme R68 said there was need in *improving accountability and transparency.* With all the various recommendations from the different participants of the study being shared, R22 stated that *it should not divert from the reason of its core existence which is to provide affordable and easily accessible health care services*, this is one of the objectives of the scheme in order to achieve universal coverage health.

Discussion

The study was aimed at assessing the factors that affect customer satisfaction with national health insurance in Chingola district in Zambia. Majority of the participants were aged between 26 and 35 years old, this is the most productive and reproductive age group and should therefore have access to quality health services close to where they are. The median age in Zambia currently stands at 17.3, meaning the country has more of a young population than and older population (Zambia demographics population, 2023) The 2023 statistics also show that there are more people in the rural parts of Zambia than there are in urban areas. 97.3 percent of the participants were from the urban area of the district, meaning at the time of the study, there were more people who are accessing the service from the urban areas than they were from the rural areas.

This becomes a key area for the policy makers to ensure that rural areas are served in an equitable manner depending on the population that is being served and the youths are encouraged to register for the scheme especially in densely populated areas of the country. Chingola ranks top ten among the densely populated areas in the country with only two health facilities that are operating with the scheme translating into inadequate human resource available to provide quality service in a time-bound manner.

The net promoter scale was used to calculate customer satisfaction and predict customer loyalty to the service. A net promoter score of 1 as calculated from the question asking about how likely the participants were to recommend the service means that the promoters of the service were more that the detractors of the service. Though this score is above 0, there is still a lot of room of improvement and a periodic measurement of the score can help track progress. The national health insurance being provided by the government does not exist in a monopoly market and customer dissatisfaction may cause the clients to seek health services through other private led schemes or opt for out of pocket spending to supplement the schemes pitfalls.

When participants in the study were asked to rate how satisfied they were with the current services, 54 responded as being satisfied, while 19 responded to being very satisfied with the services. The customer satisfaction index was then calculated and found to be 49.66%, which is low compared to developed countries such as America who have customer satisfaction index of above 70 with the insurances services being offered in the country.

The number of detractors (39) are unlikely to promote or share their positive experience or recommend for others to use.This is knowledge is important because the government cannot single-handedly reach all places equally but the more promoters accessing the service, the more they are likely to increase sensitisation to others who may not be aware of the benefits of the services being provided. Having more detractors can harm the reputation of the service.

Community engagement has been shown to be the best place to run sensitisation and mobilisation. In order to address the challenge of implementation problem of low numbers of enrolment and encourage more unemployed population to register with the scheme. Sensitisation should be included in other community engagement programs outside the hospital setting. This study brought out the disproportion of employed against unemployed participants (64 against 35) and this line of thought was strengthened by the largest proportion of respondents having had heard or registered for the scheme as work obligation, this means those who are not in employment become a cohort that is not being reached, even though the scheme provides an option for those who are in informal employment to contribute monthly through their mobile money account and other deposit platforms, it becomes difficult for those with no access to technology to have access to these services. The Community based Insurance becomes an additional policy that should be included under the National health insurance or added as a complement insurance to encourage more people joining and accessing healthcare using the scheme. West africa is one region on the continent that has implemented this type of insurance, a study done to determine the factors affecting membership participation revealed that advanced age, low education, low household income as the main factors affecting participation. In Zambia, these factors are accounted for because citizens who are above 65 years of age are exempted from contributions to the scheme but

require registration in order to access the scheme. The country has gone a step further introduce free education from grades 1 up to 12 which will increase the levels of education in the country. In addition to this, the vulnerable, poor and differently abled are exempted from payments and the ministry of health has partnered with the Ministry of community development and social services to have the members exempted from nhima contributions. Further, the government, through nhima has partnered with Global Fund and International Labour Organisation and has launched over 100000 social cash transfer beneficiaries as nhima members.

A study done in Nigeria, a country that implemented the community based insurance concluded that members in rural areas should be involved to ascertain the affordability and contributing system that would be efficient for them, this can be implemented in our setting because members of certain communities will face similar challenges and determinants of health.

These results can be compared to Kenya which has one of the oldest schemes but with only 10 percent of the entire population is insured and the members ensured were averagely satisfied, this study attributed this to lack of awareness of the service packages that were available to them. The study concluded that most African countries have continued to face fluctuations in enrolment (Okumo, 2018).

In India, customer satisfaction was calculated using the customer satisfaction index and the results showed that government sponsored schemes should a higher customer satisfaction index than private schemes. The major areas of satisfaction included affordability of the schemes as well as accessibility. In contrast, this study found a low customer satisfaction index when it came to customer satisfaction 59 percent and an even lower customer satisfaction index with regards to claim and time bound. 33 percent of the participants called for improved infrastructure through having more offices, accrediting more health facilities and employing more human resource to work specifically in the nhima provision areas of the hospital. A combination of different customer satisfaction scores to find out which areas need improvement is important in the improvement of the service provision.

6 percent recommended that the NHIMA services be tiered and beneficiaries of the scheme be allowed to pick which services they would like to be insured for, this strategy helped China achieve universal coverage health within two years of implementing the scheme as they had three separate programs; the urban employee basic medical insurance, new rural cooperative and the urban resident basic medical insurance(Su, *et al*., 2018) [17].These schemes are based on employment status in the country. In Zambia, the scheme has no tiered option and hence does not account for those who have chronic illnesses that may need frequent follow up and treatment i.e those living with conditions such as hypertension, diabetes, sickle anaemia, epilepsy and so on. Even though this option might prove costly in the implementation phase, it is an option that is worth exploring to provide equitable care to every individual.

In comparing the finds of the national health insurance survey which was done at the national level in 2022 in Zambia and the findings of this study. The survey was conducted in all the ten provinces of Zambia with Lusaka province having the highest level of respondents followed by the Copperbelt province. 63 percent of the survey

respondents had registered for nhima through their various work places which was the similar finding as with study where the majority of the respondents 54.4 percent had registered as work obligation. the survey went further to assess the level of knowledge that the respondents had on the benefits package and services that the insurance provides a limitation that this study did not include. over 90 percent of the respondents at national level found the scheme to be affordable (highest percentage of the respondents) whilst in Chingola, 69 percent of the respondents found the scheme to be affordable. in addition both studies found that nhmia services were easily accessible both at the national level and at the district level. The survey at the national level had higher absolute percentages because they accounted for the neutral responses as positive responses.

It is important to note that customer satisfaction may differ depending on when the survey is conducted.if the survey is conducted during a time when there are enough stock levels of drugs, available reagents and other service provision facilities, the customer satisfaction level will rise, whilst the opposite will prove to be true.

Conclusion

The study was aimed at assessing the factors that affect customer satisfaction with national health insurance in Chingola district in Zambia. Majority of the participants were aged between 26 and 35 years old, this is the most productive and reproductive age group and should therefore have access to quality health services close to where they are. The median age in Zambia currently stands at 17.3, meaning the country has more of a young population than and older population (Zambia demographics population, 2023) The 2023 statistics also show that there are more people in the rural parts of Zambia than there are in urban areas. 97.3 percent of the participants were from the urban area of the district, meaning at the time of the study, there were more people who are accessing the service from the urban areas than they were from the rural areas. This becomes a key area for the policy makers to ensure that rural areas are served in an equitable manner depending on the population that is being served and the youths are encouraged to register for the scheme especially in densely populated areas of the country. Chingola ranks top ten among the densely populated areas in the country with only two health facilities that are operating with the scheme translating into inadequate human resource available to provide quality service in a time-bound manner. The net promoter scale was used to calculate customer satisfaction and predict customer loyalty to the service. A net promoter score of 1 as calculated from the question asking about how likely the participants were to recommend the service means that the promoters of the service were more that the detractors of the service. Though this score is above 0, there is still a lot of room of improvement and a periodic measurement of the score can help track progress. The national health insurance being provided by the government does not exist in a monopoly market and customer dissatisfaction may cause the clients to seek health services through other private led schemes or opt for out of pocket spending to supplement the schemes pitfalls. When participants in the study were asked to rate how satisfied they were with the current services, 54 responded as being satisfied, while 19 responded to being very satisfied with the services. The customer satisfaction index was then

calculated and found to be 49.66%, which is low compared to developed countries such as America who have customer satisfaction index of above 70 with the insurances services being offered in the country. The number of detractors (39) are unlikely to promote or share their positive experience or recommend for others to use.This is knowledge is important because the government cannot single-handedly reach all places equally but the more promoters accessing the service, the more they are likely to increase sensitisation to others who may not be aware of the benefits of the services being provided. Having more detractors can harm the reputation of the service. Community engagement has been shown to be the best place to run sensitisation and mobilisation. In order to address the challenge of implementation problem of low numbers of enrolment and encourage more unemployed population to register with the scheme. Sensitisation should be included in other community engagement programs outside the hospital setting. This study brought out the disproportion of employed against unemployed participants (64 against 35) and this line of thought was strengthened by the largest proportion of respondents having had heard or registered for the scheme as work obligation, this means those who are not in employment become a cohort that is not being reached, even though the scheme provides an option for those who are in informal employment to contribute monthly through their mobile money account and other deposit platforms, it becomes difficult for those with no access to technology to have access to these services. The Community based Insurance.

Recommendations

This information can be used by policy makers to improve on the current services being offered in the district. There is need to build more infrastructure and increase the human resource to shorten on the waiting time of the clients in the queue. Facilities that have been upgraded from clinic to mini hospitals can also be accredited.

Since the district only has one large accredited health facility catering for in patient and operative care, private public partnership is needed with the mine and private facilities where the government hospital is lacking with certain resources.

The needs to be an introduction of a tiered system that gives clients an option of further services they would like access based on the ability to pay extra, this calls for involvement of the community as they are the main stakeholders of the scheme.

More sensitisation of the insurance scheme is needed in the peri-urban region of the district, the policy makers can make use of the promoters of the scheme to recommend the services to other people in the community. This study revealed that most of the participants who accessed the service at the time of the study were employed and majority had heard about the scheme from their employer or signed up as a work obligation. Periodic research surveys are needed so that policy adjustments can be done based on evidence and findings.

Scope of Future Research

This Study focused on the customer satisfaction with nhima in Chingola district of Zambia, this data has added more knowledge to local literature in the country. The nhima customer satisfaction survey of 2023 is a great foundation for future research and as this research has brought out the current picture in Chingola, more surveys are needed at provincial, district and facility level and the results become a basis for policy interventions in the future. Different facilities within the same country have different weather patterns as well as different disease patterns. What one district maybe satisfied with may be dissatisfaction in another. There needs to to be equitable distribution of health resources across the country if universal coverage health is to be achieved. Further, the government of Zambia has various ministries collaborating to more citizens registered under the scheme and there is a need to understand the correlation between the current collaboration and the health outcomes over a specified period of time.

Acknowledgements

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