

## Assessment of utilization of National Health Insurance Fund students' health scheme: A case of selected Institutions of Higher Learning in Arusha region, Tanzania.

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### Abstract:

**Background:** Tanzania has been undertaking various efforts to establish the universal health coverage by ensuring all Tanzanians are insured by the National Health Insurance Fund. In 2009, NHIF designed students' health scheme for providing health-care services specifically to students through payment of annual membership fees. However, for more than 10 years, the annual enrolment of students has been low at 35%. This study therefore, sought to assess the utilization of NHIF university students' health scheme in Arusha, Tanzania using two selected universities as the case study.

**Materials and Methods:** The study adopted a descriptive research design. The sample for the study comprised of 220 respondents who were identified through both probability and non-probability sampling techniques. A semi-structured questionnaire was used to collect quantitative data and a tape recorder to record qualitative data. The quantitative data was analyzed using the Statistical Package for the Social Sciences (SPSS)<sup>3</sup>, while the qualitative data was analyzed through coding.

**Results:** Out of the total respondents, 90% had visited the health facility once in the previous 12 months. Some of the respondents (10%) did not utilize the health facilities, giving the reason that they were not sick and hence did not need medical attention. The majority of the students were knowledgeable about the health services offered under the NHIF students' health scheme. The administrators dealing with NHIF issued in the selected IHL said that, NHIF had not established a system of dealing with raised challenges when students accessed the health-care services.

**Conclusion:** Majority of study respondents had visited the health facilities once in the past 12 months. Despite students being aware of the health services offered, NHIF had not established the system of communicating with students on their health matters.

**Key Word:** Utilization; National Health Insurance Fund; Students' health scheme; Enrolment.

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### I. Introduction

The establishment of the students' health scheme by the National Health Insurance Fund (NHIF) in 2009 was a bold initiative to augment the fund's range of packages offered to Tanzanian citizens. The other health insurance schemes provided by NHIF are for public and non-public employees with their dependents and community groups engaging in economic empowerment activities. NHIF also offers health insurance coverage to private individuals with their dependents and equally important is the scheme for children less than 18 years old [8]. In an effort to include diverse community groups and ensure that 50% of the Tanzanian population is not only enrolled but also utilizes the health insurance by 2020, NHIF devised a students' health scheme. NHIF purposefully introduced the scheme to ensure that all students from institutions of higher learning (IHL) are provided with health insurance services. The NHIF health services for IHL can be accessed countrywide because all the government and public owned health facilities entered into contracts with NHIF to provide medical services to insured students. It is worth noting that the contracts are renewable and last for three years [9]. The registration of students for the health scheme is on an annual basis and is usually done at the beginning of each academic year. The duration of active membership is one academic year and is renewable annually for the entire duration of the members' study programs. To facilitate smooth identification, NHIF offers each student an identity card, which is valid throughout the student's respective study duration. However, beneficiaries can renew their membership by paying the premiums annually to redeem their membership cards. The identity cards are used when the students visit the accredited health services facilities to access and utilize medical services whenever they fall sick. The main objective of introducing the NHIF students' health scheme

was to ensure that students' health issues were taken care of during their studentship without using any top-up or out-of-pocket (OOP) payments [8].

## **II. Material and Methods**

This study was carried out in Arusha Region. The region had both public-owned and private-owned Institutes of Higher Learning. Two IHL namely Institute of Accountancy Arusha, which is a public-owned, and Tumaini University Makumira, which is private-owned, were the target population. The study was undertaken from June to August 2018. A total of 220 respondents participated in this study.

**Study Design:** The study adopted a descriptive research design.

**Study Location:** This study was done in Arusha region, Tanzania. The region had comprised four public-owned IHLs and four private IHLs. These IHL offered courses from certificate level to masters. The public-owned IHLs were IAA, Tengeru Institute of Community Development, Nelson Mandela University of Science and Technology, and Arusha Technical College. The private-owned ones were TUMA, Eastern and Southern African Management Institute, University of Arusha, and St. Augustine University Arusha Branch.

**Study Duration:** June 2018 to August 2018.

**Sample size:** 220 participants.

**Sample size calculation:** It is recommended that a sample of between 10% and 30% of the target population generate a suitable sample size [7]. Based on the population 2,200, according to TCU report [14], 10% equivalent to 220 students was the sample size. Two administrators, one from the IAA and the other from TUMA were purposively selected because of their direct involvement in the administration of NHIF students' scheme. In this study, gender was considered with the involvement of both males and females. The samples included students registered with NHIF students' health scheme, who held authentic NHIF cards for the past 12 months by the date of research, were eligible to access, and utilize the NHIF students' health scheme.

**Subjects & selection method:** Both purposive and multistage sampling techniques were used. Purposive sampling was used in the selection of the IHL, and two administrators from two IHL, IAA and TUMA, whose students were registered with NHIF students' health scheme. The administrators were administering the NHIF students' health scheme at their respective IHL. The second stage was listing all study programs in those selected IHL. The third stage was listing all students from the study programs listed in those two IHL. The list of students was separated based on gender to ensure that both males and females were equally involved in the study. The fourth stage involved selecting the sample from all the programs in each IHL proportionally based on gender. The last was the selection of the study participants from each program sample based on gender lists using simple random sampling.

### **Inclusion criteria:**

1. Diploma and Bachelor students enrolled under NHIF students' health scheme.
2. Diploma and Bachelor students who had utilized NHIF students' health scheme in the past 12 months.

### **Exclusion criteria:**

1. Diploma and Bachelor students enrolled to other health insurance other than NHIF students' health scheme.
2. Students undertaking Certificate programs

### **Data analysis**

Both quantitative and qualitative data drawn from semi-structured questionnaires were analyzed. Data collected from closed-ended questions were tabulated and checked for any errors and omission. Quantitative data was analyzed using Statistical Package for Social Science (SPSS) version 22.0. The analyzed data was presented in frequency tables, charts, and percentages. Qualitative data from open-ended questions were coded and analyzed using SPSS.

## **III. Result**

### **Socio-demographic Characteristics**

This section profiles the characteristics of respondents surveyed in terms of age, gender and respondents' distribution.

#### **Response Rate**

The response rate was 100%. A total of 220 respondents, 144 from TUMA and 76 from the IAA were interviewed. Two purposively selected administrators: one from TUMA and the other from the IAA were also interviewed because they were directly involved with all the activities of NHIF students' health scheme.

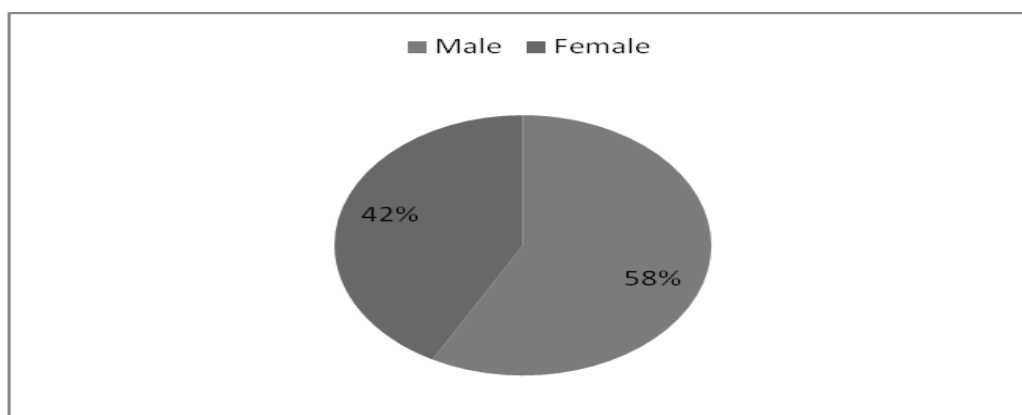
#### **Distribution of respondents by age**

The respondents were asked to indicate their age bracket from the following categories: 15-20, 21-30, 31-40, and above 40 years. 70% of respondents indicated that they were aged 21 to 30 years, 16% fell in the 15 to 20

years' category, 13% were in the 31 to 40 years' category, while 1% above 40 years. From the findings, many of interviewees fell in the 21 to 30 years' bracket. This implies that most of study respondents were youths.

**Distribution of respondents by gender**

The study sought to establish the distribution of the respondents in terms of gender. The findings are presented in Figure 1.



**Figure 1:** Distribution of Respondents by Gender (n=220)

From the findings shown in Figure 1, 58% were males while 42% were females. The results show a higher number of males because more male students were admitted in the IHL. This disparity was occasioned by high dropout rates for the females owing to early marriages and unwanted pregnancies.

**Distribution of respondents by university**

The research investigated the distribution of respondents by university level, as shown in Table 1.

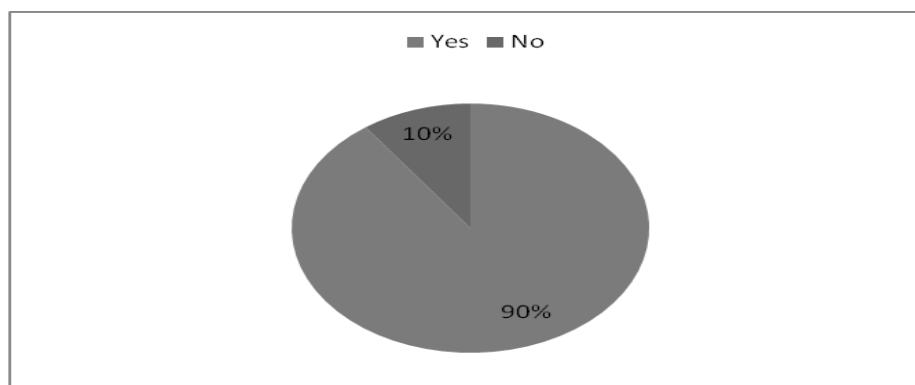
**Table 1:** Distribution of Respondents by University

University	n	%
TUMA	144	65
IAA	76	35
Total	220	100

Findings from Table 1 shows that 144(65%) respondents were from TUMA while 76(35%) were from IAA. This implies that most of the respondents were from TUMA because it had a larger population of students. Additionally, TUMA had more study programs than IAA and therefore admitted a higher number of students.

**Students' visits to the NHIF accredited health facilities for one year**

The study sought to determine the rate of insured students' visits to the NHIF accredited health facilities in one year. The results are shown in Figure 2.



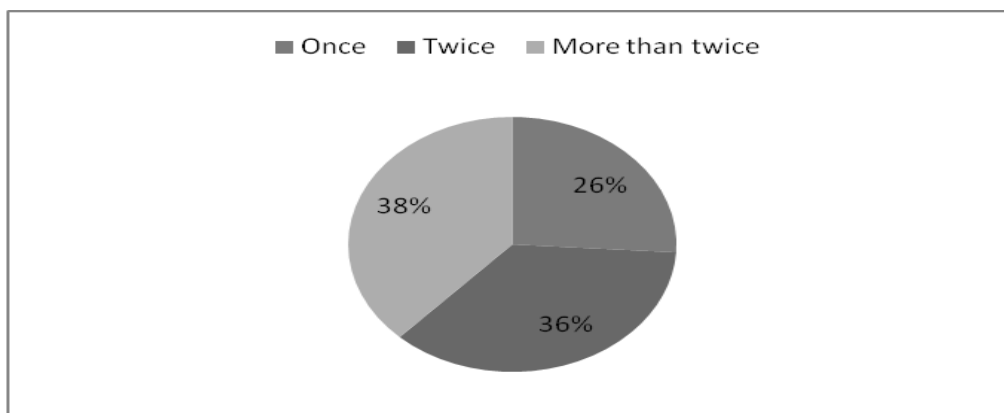
**Figure 2:** Students Visits to Health Facilities for Treatment - the past 12 Months

From Figure 2, it was evident that 90% of the respondents visited the accredited health facilities in the last one year while 10% did not. The findings indicate that a majority of the respondents had accessed the

medical services under the NHIF students' health scheme. This shows that the NHIF students' health scheme was useful and that a large number of the enrolled students were visiting the accredited health facilities to utilize the medical services.

**Number of times respondents visited health facilities in the past 12 months**

The study also sought to find out the number of times the respondents had visited the health facilities in the past 12 months, and the findings are illustrated in Figure 3.



**Figure 3:** Respondents' Visits to Health Facilities for Treatment – the past 12 Months (n=198)

Findings from Figure 3 indicate that 198(90%) respondents visited the accredited health facilities as follows: 26% of them had visited once, 36% had visited twice, and 38% had visited more than twice, in the past 12 months. Within 12 months, a majority of the interviewees visited the health facilities more than twice and utilized the health services under the NHIF students' health scheme.

**Respondents' reasons for not visiting the health facilities**

A total of 22(10%) who had not visited the accredited health facilities in the past 12 months were interviewed to establish their reasons for not visiting the health facilities. Findings are shown in Table 2.

**Table 2: Reasons for Students not Visiting the Health Facilities**

Reasons for not visiting the health facilities (Multiple responses)	n	%
Did not get sick	9	54
Facilities are located far	5	23
Financial constraints	1	8
Long waiting hours	1	8
Unnecessary disturbance at the health facilities	1	8
Unaware of the health services provided	3	15
New health service available to the university	1	8

From the findings presented in Table 2, the respondents indicated their reasons for not visiting the health facilities as follows: 9(54%) had not fallen sick, 5(23%) claimed that health facilities were located far from their IHL. The other 3(15%) were not aware of the health services provided, 1(8%) mentioned financial constraints, another 1(8%) cited the long waiting hours, the other 1(8%) cited unnecessary disturbance at the health facilities while the last 8%(1) mentioned the availability of new health services in the university. These findings reveal that a majority of respondents who did not access the health-care services from the health facilities had not fallen sick. That is why it had not been necessary for them to visit the health facilities despite owning the valid membership cards.

**Factors Influencing the Utilization of NHIF Students' Health Scheme**

The study further sought to establish students' socio-demographic characteristics of utilization of NHIF health scheme as seen in Table 3.

**Table 3: Utilization of NHIF Health Scheme (Socio-demographic characteristics)**

Factors	Visited NHIF accredited health facilities			
	Yes		No	
	n	%	n	%
	198	90	22	10
Age-group				
15-20	33	17	5	22
21-30	139	70	15	67
31-40	24	12	2	11
40+	2	1	0	0
Gender				
Male	117	59	12	53
Female	81	41	10	47
Universities				
TUMA	129	65	13	59
IAA	69	35	9	41

From the findings presented in Table 3, 139(70%) respondents in the age bracket 21 to 31 years visited the health facilities while 15(67%) in the same age bracket did not visit the NHIF accredited health facilities. Further, 117(59%) respondents who visited and 12(59%) who had not visited the health facilities were males. Additionally, 129(65%) of respondents who visited and 13(59%) of those who had not visited the health facilities were from TUMA. Therefore, a majority of the respondents were male youths from TUMA.

**Factors Influencing the Utilization of NHIF Student's Health Scheme among Enrollees**

The study assessed the effect of the treatment received from the medical attendants, the minutes spent to access and receive the treatment among the students who visited the health facilities. The findings are illustrated in Table 4.

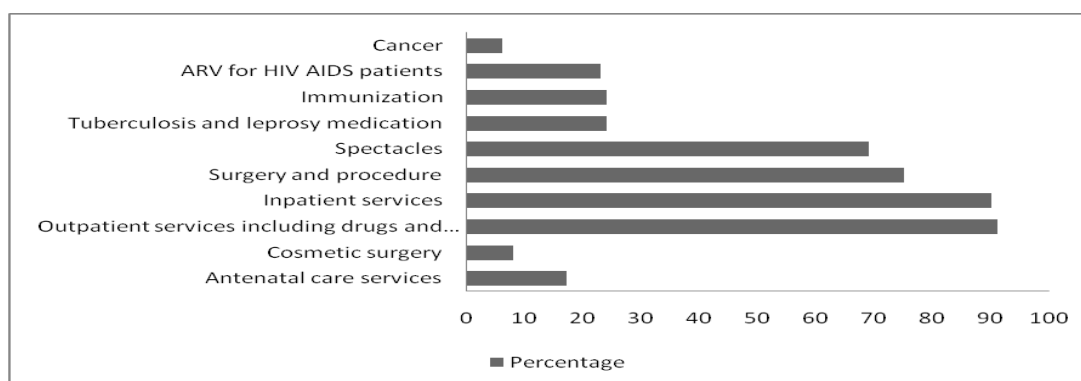
**Table 4: Factors Influencing the Utilization of NHIF Student's Health Scheme among Enrollees (n=220)**

Factors	Visited NHIF accredited health facilities	
	Yes	
	n	%
Treatment received from medical attendants		
Very satisfactory	40	20
Moderate satisfactory	99	50
Somehow satisfactory	45	23
Not satisfactory	14	7
Minutes taken to reach health facilities		
Less than 15 minutes	12	6
15 minutes	21	11
30 minutes	71	36
One hour	65	33
More than two hours	29	15
Time taken to receive medical services		
Less than one hour	67	34
Two hours	73	37
Three hours	33	17
Four hours and above	25	13

As captured in Table 4, 99(50%) respondents who visited the NHIF accredited health facilities reported that they were moderately satisfied, 45(23%) were somehow satisfied, 40(20%) were very satisfied, and 14(7%) were not satisfied. Regarding the minutes taken to reach the health facilities, 71(36%) respondents reported that they spent 30 minutes, 65(33%) spent one hour, 29(15%) spent more than two hours, 21(11%) used 15 minutes while 12 (6%) spent less than 15 minutes. The respondents were asked on the time they used to receive medical services they responded as follows: 73(37%) used two hours, 67(34%) used less than one hour, 33(17%) used three hours while 25(13%) used four hours and above. The findings imply that a good number of the respondents were moderately satisfied with the health services rendered and the possible reason is the long delays in receiving medication at the health facilities.

### The Health Services Offered under NHIF Students' Health Scheme

The study wanted to collect the information regarding health-care services offered under the NHIF Students' scheme through multiple response questions. The findings are shown in Figure 4.



**Figure 4:** Health Services offered under NHIF Students' Health Scheme

From the findings shown in Figure 4, (91%) of the respondents identified outpatient services including drugs and laboratory tests as one of the services offered at the health facilities, 197(90%) mentioned inpatient services; 166(75%) identified surgery and procedure services, and (151)69% mentioned spectacles. The other services mentioned below 25% were immunization services, tuberculosis, and leprosy medication at 52(24%); Antiretroviral for HIV AIDS patients were 51(23%), and antenatal care service were 38(17%). The services mentioned below 10% were cancer and cosmetic surgery at 6%(13) and 8%(17) respectively. The majority were aware of the services offered and not offered under the students' health scheme. It was only few who were not aware of the health-care services offered as they mentioned immunization, tuberculosis, and leprosy, which were not offered to them.

### Challenges Faced by Universities in Enrolling Students into NHIF Students' Scheme

The respondents reported that students were complaining that NHIF had not established the system of dealing with emergency patients' cases. The respondents were resisting renewing their membership because NHIF had not instituted the proper system of sending feedback regarding reported complaints as shown below by the respondents:

*I have been receiving many complaints from our students who visited the health facilities and who needed the emergency healthcare using the NHIF cards. Students reported to me that when they visited different health facilities during night hours they were not attended because they were told NHIF patients were attended only during the day hours. Students reported to me that even when they reported the complaints direct to NHIF offices there was no feedback sent back to them on the complaints follow up (Respondent 1).*

*NHIF staff visit our institute only during the registration of new and continuing students into the scheme. After that they never show up again. Even when students reported to me the complaints of not accessing health services to health facilities during night hours, they never respond to our letters. This brings about the difficult environment for me to work with NHIF to solve students' complaints on time (Respondent 2).*

From these responses, it was evident that communication gaps existed between NHIF and the management of the IHL regarding the operations of NHIF students' health scheme. NHIF system of communicating with IHL during students' enrollment at the beginning of each academic year implied that NHIF collected the students' remittances and after that activity, they never monitored the health services offered to them. In addition,

respondents mentioned low awareness on the NHIF students' health scheme and delays in receiving of students NHIF cards.

*Despite recruiting the students, no efforts have been made by NHIF to call all the insured students and provide education on how to use the cards. The Institute always pays the remittances to NHIF at the beginning of academic year. However, it usually takes up to three months for NHIF to issue the cards to students and these delays students' access to healthcare (Respondent 1).*

*My students have been asking me to inform NHIF to visit and provide education on how and where to use NHIF cards. If NHIF cards were produced for the whole academic duration the delay of issuance of NHIF cards could be minimized (Respondent 2).*

Findings show that the students did not receive adequate information on the health services offered and that NHIF did not adhere to the contract of insuring students for one year due to delay of cards for three months and those students used the cards for 9 months instead of 12. Respondents suggested that NHIF should issue cards that expire after three years instead of annual expiration in order to reduce the monotony of annual membership cards production. Respondents also suggested that NHIF should hold awareness campaigns at least twice a year in order to sensitize students on the health benefits package and hence improve enrolment and utilization of health-care.

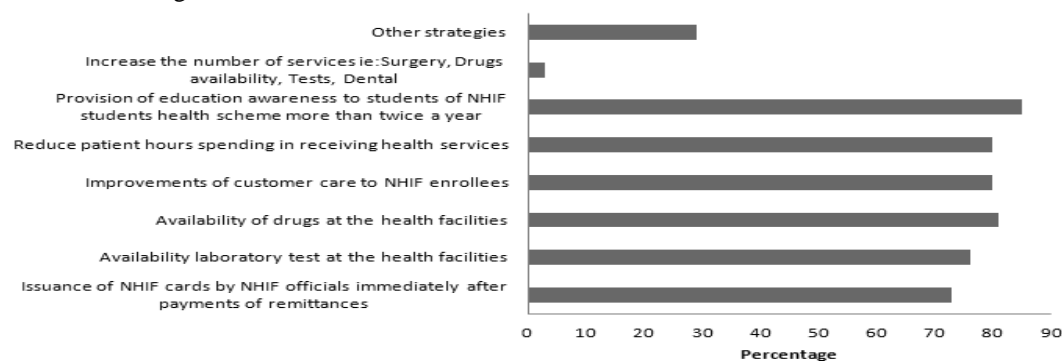
*In order to ensure students, utilize the health services, I advise that NHIF should issue their cards once for the entire study duration and that they activate the cards annually after the payments of remittance are done. NHIF should visit the insured students and provide the education on the students' health product so that students understand the health services offered and the health facilities students can visit and access health services using NHIF cards (Respondent 1).*

*The expired duration has been annually for NHIF cards; therefore, I suggest it be three years. Students highly need NHIF staff to be visiting our institute whenever needed for providing the health services updates and general education awareness dissemination (Respondent 2).*

These responses therefore implied that students wanted an extension of the expiry dates for NHIF cards and education on the health benefits of the scheme.

### Suggestions to Improve NHIF Students' Health Scheme Utilization

The respondents were asked to suggest the ways to improve NHIF students' health scheme utilization. The findings are shown in Figure 5.



**Figure 5:** Suggestions to Improve NHIF Students' Health Scheme Utilization

From the findings in Figure 5, 186(85%) respondents reported that creating awareness on the availability of NHIF services to students should be done more than twice a year. Another set of 179(81%) respondents pointed out that the necessary drugs should be made available at the accredited health facilities. Another 175(80%) mentioned improvement of customer care to enrolled students as well as shorter waiting periods for clients at the health facilities. The other 168(76%) reported that laboratory tests should be done at the accredited health facilities while 160(73%) respondents mentioned that NHIF should issue the membership cards immediately after the payment of remittances. These results implied NHIF needs to improve on its ways of disseminating information to students. The students, who are bona fide clients, need to know the inclusive and exclusive health services. The findings also implied that the accredited health facilities should offer services to clients as per the agreement entered with NHIF.

#### **IV. Discussion**

The utilization of health services at 90% for this study differ significantly with [16] whereby 62.2% of the respondents had accessed the health-care services every six months. Both studies revealed that above 50% of the interviewees utilized the health-care proving the usefulness of the scheme. [15] revealed that 32% of students utilized the health-care services within 12 months different from 90% for this study. [13] revealed that 73% of the students were enrolled and using the health services, different from the study whereby 90% of the enrolled. Therefore, health insurance was quite useful because students were utilizing the health services. It was stipulated that access of health-care services in any SHI was among the key indicators of measuring of its impact because the higher the access to health-care services the higher the reduction of OOP expenditure [17]. The findings [12] similar to this study insisted the utilization of health services depend on adequate information on the health services offered. Furthermore, [12] showed provision of education on health provided influenced the utilization. Among 198 students who accessed the health-care services, 50% were moderately satisfied. Furthermore, 36% of students spent at least thirty minutes to arrive at the hospitals to access medical services while 33% spent an hour. The other 34% spent less than an hour before they could receive medical services, and 37% spent two hours waiting to receive medical services. Similarly, it was established that easy access to health facilities, the time spent to receive the treatments, improved customer care relationship between the insured students and the clinicians, and availability of essential medicine encouraged the community members to register and utilize the medical services [10]. NHIF students' health scheme was not disseminated to students; hence, they were not fully aware of health services offered to them. It was highlighted that only members who fell sick got access to information regarding where to access which type of health services [12]. Significantly, this study revealed that the students were not getting the right information regarding NHIF students' health scheme, hence they could not easily identify which health services they could access. Regarding these factors perceived to influence the students to utilize NHIF students' health scheme, provision of education to students on SHI played a vital role. It was also revealed that maintenance of enrollees depends on among others updating of the reviewed benefit packages to the insured through the periodic education [5]. Eventually, enrollees would be knowledgeable and utilize the health services. Regarding the challenges faced by universities in enrolling students into NHIF students' health scheme, respondents in this study reported that the NHIF had not established a system of attending to patients' emergence cases nor giving feedback on students' reported complaints. The study findings were supported on the fact that despite patients waiting for a long time, they ended up receiving poor health services [2]. These factors inhibited the enrolment and utilization of health insurance because students perceived the situation as mistreatments. The Poor-quality health-care services were associated with the long duration of waiting to receive medical treatment, mistreatment of insured patients by the clinicians, and lack of a system for reporting the complaints [1]. The community members who had already enrolled were not persuaded to continue registering with NHIF because their expectations with regard to healthcare were not met. The biggest challenge was that the healthcare facilities lacked clear structures for handling complaints. This finding disagrees with [10] in which students' resistance to enrolling into the students' scheme was minimized because of the close communication between the university management and the health insurance in order to handle students' complaints. Students had little awareness of the benefit package of NHIF students' health scheme. The finding concurs with [11] on poor health-care to insured patients and lack of awareness on the benefits of SHI as challenges that faced NHIF students' health scheme. It was added that lack of sensitization among students and their parents on health insurance and all related benefits negatively affected enrollment [3]. It was also addressed how lack of awareness of the contents of the health insurance package was proved to affect the uptake [4]. Therefore, this shows that students perceived the NHIF students' health scheme as a useful plan but unawares on benefit package remained unanswered. The other study also agrees on promotion of strong public awareness and education programmes to its beneficiaries for improving enrolment [6].

The research findings evidenced that customer care was unsatisfactory; therefore, the respondents suggested improving customer care and minimizing the waiting time of NHIF members. [10] supported that long duration of waiting for medical treatments disappoints the patients. The other author suggested that the other area of improvement in the health provision was minimization of waiting time. Both studies suggested that for improvement of customer care, the health facilities should ensure patients are not overstaying when accessing the medical services.

#### **V. Conclusion**

All study participants were enrolled under NHIF student's health scheme. The majority, 90% had visited the health facility at least once in the last 12 months. However, NHIF had no clear system of attending patients' emergency cases during the night hours hence students were unable to access medical services. This is because NHIF had not established a proper system of communicating with the management of IHLs and enrolled students regarding the NHIF students' health scheme operations. This physical absence of NHIF



officials affected students' awareness of the operations of their health scheme. Therefore, NHIF were advised to plan for the schedule of visiting the students to provide education on students' health scheme, the reviews of benefit package and respond to challenges students face from the registration to the utilization of health-care services.

### References

- [1]. Alhassan, K., Duku, O., Jassens, W., Nketiah-Amponsah, E., Spieker, N., & van Ostenberg, P. (2015). Comparison of perceived and technical health care quality in primary health facilities: Implications for a sustainable national health insurance scheme in Ghana. *PLoS ONE*, 10(10). doi: 10.1371/journal.pone.0140109
- [2]. Anetoh, M. U., Jibuaku, C. H., Nduka, S. O., & Uzodinma, S. U. (2017). Knowledge and implementation of Tertiary Institutions' Social Health Insurance Programme (TISHIP) in Nigeria: A case study of Nnamdi Azikiwe University, Awka. *Pan African Medical Journal*, 28(1). doi: 10.11604/pamj.2017.28.171.11379
- [3]. Daniel, B. W. (2019). Factors affecting uptake of health insurance among university students in Uganda: A case study of Makerere University (Unpublished doctoral dissertation). Makerere University, Kampala, Uganda.
- [4]. Gichuru, K. S., Muturi, W., & Wawire, N. (2015). Factors affecting the uptake of private health insurance: A survey of Jomo Kenyatta University of Agriculture and Technology executive master of business administration students. *International Academic Journal of Human Resource and Business Administration*, 1(4), 14-29.
- [5]. Jehu-Appiah, C., Aryeetey, G., Agyepong, I., Spaan, E., & Baltussen, R. (2012). Household perceptions and their implications for enrolment in the National Health Insurance Scheme in Ghana. *Health Policy and Planning*, 27(3), 222-223.
- [6]. Marwa, C. (2016). Provision of National Health Insurance Fund services to its members; pain or gain? *Unified Journal of Sports and Health Science*, 2(1), 1-6.
- [7]. Mugenda, A., & Mugenda, O. (2013). *Research methods: Quantitative and qualitative approaches*. Nairobi, Kenya: Acts.
- [8]. National Health Insurance Fund. (2016). *NHIF statistics and fact sheets as of June 2016*. Dar es salaam, Tanzania: Author.
- [9]. National Health Insurance Fund. (2017). *Annual report*. Dar es Salaam, Tanzania: Author.
- [10]. Obiechina, G., & Okenedo, G. (2013). Factors affecting utilization of university health services in a tertiary institution in South West Nigeria. *Nigerian Journal of Clinical Practice*, 16(4), 454-457.
- [11]. Obse, A., Hailemariam, D., & Normand, C. (2015). Knowledge of and preferences for health insurance among formal sector employee in Addis Ababa: A qualitative study. *BMC Health Services Research*, 15(1). doi: 10.1186/s12913-015-0988-8
- [12]. Okaro, A. O., Ohagwu, C. C., & Njoku, J. (2010). Awareness and perception of National Health Insurance Scheme (NHIS) among radiographers in South East Nigeria. *American Journal of Scientific Research*, 8, 18-25.
- [13]. Postolowski, C., & Newcomer, A. (2013). *Helping students understand healthcare reform and enroll in health insurance*. Tallahassee, FL: Center for Postsecondary Success.
- [14]. Tanzania Commission for Universities. (2017). *Approved undergraduate programmes for 207/2078 for Form 6*. Dar es salaam, Tanzania: Author.
- [15]. Turner, J., & Keller, A. (2015). College health surveillance network: Epidemiology and health care utilization of college students at US 4-year universities. *Journal of American College Health*, 63(8), 530-538.
- [16]. Usman, H., Sisson, R., Tavakoli, G., & El Khatib, R. (2015). Health insurance utilization among undergraduate students of Canadian University of Dubai. *International Journal of Healthcare Sciences*, 2, 379-384.
- [17]. Wagstaff, A. (2010). Estimating health insurance impacts under unobserved heterogeneity: The case of Vietnams Health Care Fund for the poor. *Health Economics*, 19(2), 189-208.