



KNOWLEDGE AND UPTAKE OF COMMUNITY-BASED HEALTHCARE FINANCING IN MANAGEMENT OF NON-COMMUNICABLE DISEASES AMONG COMMUNITY MEMBERS IN ANAMBRA STATE, NIGERIA

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ABSTRACT: *Background:* Catastrophic health expenditure is one of the challenges people living with non-communicable disease face, especially in Nigeria. This has led to the emergence of community-based health insurance as a means to achieve universal health coverage and reduce out-of-pocket payments. However, lack of knowledge about the insurance scheme and how it helps to manage non-communicable diseases seems to affect utilization. **Aim:** The study assessed the knowledge and uptake of community based healthcare financing in the management of non-communicable diseases among community members in Anambra State. **Materials and Methods:** A descriptive cross-sectional survey design was adopted for the study, sample size was 444 and a multistage sampling technique was used. The instrument for data collection was a self structured questionnaire and data obtained were analyzed using Microsoft excel, descriptive statistics, inferential statistics for hypothesis testing and IBM statistical package for social Sciences (SPSS) version 29. **Results:** 64.1% had a good knowledge of community based healthcare financing; 51.4% managed their health condition through hospital visits under CBHI. There was a significant relationship between the level of education of respondents and their level of knowledge of community based health insurance (p -value $0.001 < 0.05$). **Conclusion:** Majority had a good knowledge; those suffering pregnancy related non-communicable diseases used the insurance more although half of the respondents still pay through their pocket. The following recommendations were made: increase access to community-based healthcare financing information, encourage those in the informal sector to enroll and plan benefit packages to have wide illness coverage.

KEYWORDS: Knowledge, Community-Based Healthcare Insurance, Non-Communicable Disease Benefit Package, Out-of-pocket payment.



INTRODUCTION

In every part of the world, the health financing system is identified as a very effective method of achieving universal health coverage. What universal coverage means is that all people in the world should have access to a full range of quality health services at all times without financial hardship (World Health Organization, 2023). This has not been achieved 100% even in developed countries. For instance, in the United States of America, only 92% of the population was estimated to have coverage in 2018 and about 8.5% of the population is left without insurance (Tikkanen, Osburn, Mossialos, Djordjevic & Wharton, 2020). Financing poor people who live in low and middle income countries has raised concern globally because, every year, non-communicable diseases (NCDs) claim about 41 million lives. This number constitutes about 70% of total deaths all over the world (United Nations International Children Emergency Fund, 2023). This situation affects people in low and middle income countries disproportionately when compared to developed nations as a result of their poor healthcare financing for non-communicable diseases coupled with relatively weak and ill-prepared system for the diseases (Idris, Oguntade, Mensah & Kitamura, 2020).

NCDs are diseases that cannot be transmitted from one person to another and they last for a long period of time. Some examples of NCDs include mental health illnesses, cardiovascular diseases such as stroke and heart disease, cancer, diabetes and chronic respiratory disease affecting the lungs (UNICEF, 2023). It is quite unfortunate that in most countries in Sub-Saharan Africa, non-communicable diseases account for more than three-quarter of all deaths resulting in disastrous health expenditure (Idris *et al.*, 2020). The problems arising from non-communicable diseases are on the increase in developing countries as a large percentage of the poor do not have access to effective and affordable medical care as a result of inherent weakness in the funding and delivery of healthcare services. Among the major difficult tasks confronting many developing countries is how to provide healthcare for the poor, especially those who live in rural areas and those who work in the informal sector. The prevalence of diseases in these countries constitutes obstacles to economic growth; this burden can only be addressed through comprehensive development strategies. Hitherto, policy makers believed that poor families in developing countries in financially precarious situations would not pay health insurance premiums, let alone prevent the cost of future treatment in hospitals. But the advent of a strong concept of community-based health financing (CBHF) has shown that the poor, if encouraged and empowered, can participate actively in health schemes that can last for a very long time (Iyahome, Adekola & Cirella, 2021). Many functional health insurance schemes in Africa are connected with formal sector employment which demands regular contributions in relation with formal sector earnings. Such insurance health schemes do not cover people in the informal who live mainly in the rural areas. In addition, the poor form a chunk of those working in the informal sector. In Nigeria, for instance, about 60% of her people live in rural areas and rural households experience higher levels of ill-health, mortality, malnutrition and insufficient healthcare. Community health insurance largely operates by risk pooling, financed through regular premiums and directed to the poor who may not be able to take insurance (Babatunde *et al.*, 2014). Community-based health insurance (CBHI) was established in 1999 under Act 35 of the Nigerian constitution (Ogben & Ilesanmi, 2018). The scheme functions as an informal sector in the health insurance programs of the national health insurance scheme. It is designed for people in the rural areas whose incomes are not stable and those in the informal sector without adequate public, private or employer sponsored insurance (Ogben & Ilesanmi, 2018).



In Nigeria, there is a disappointing up-take of CBHI scheme. The CBHI in Nigeria should be worked on with a view to get rid of regressive financing and involve members of the scheme in the management of the programme. It should also be worked on in such a way as to inform, educate, instill confidence and address injustice in the provision of health care services to encourage uptake of the scheme (Odeyemi, 2014). Anambra State has a high out-of-pocket expenditure (OOPE) which stands at 91.9% and households continue to bear the greatest financial burden (Ezeokoli, 2020). It is evident that non-communicable diseases (NCDs) contribute largely to the high rate of morbidity and mortality in the low and middle income countries (LMICs) such as Nigeria. It requires long-term proactive care, patience and sustainable community based financing to eliminate the bottle-necks that result in impoverishment of those affected. If health insurance coverage is effectively provided to communities in Anambra State to cover identified NCDs such as hypertension, diabetes and cancer, it will go a long way in reducing the rate of mortality, promoting treatment and improving access to healthcare services of the community.

MATERIALS AND METHODS

A descriptive cross-sectional survey design was adopted for the study; the area of study was in selected communities in Anambra State. Sample size was 444 and a multistage sampling technique was used. The instrument for data collection was a self structured questionnaire comprising four sections (A, B, C and D); to validate the instrument, both face and content validity was done by three experts in the field of nursing and public health; their contributions and corrections were implemented. The test-retest method was used to test for reliability on respondents from Ekwulobia who were not part of the study but had similar characteristics with the study population. The data was computed in IBM SPSS and internal consistency was analyzed using Cronbach Alpha which yielded 0.86. Ethical considerations were duly observed; data collection lasted for 8 weeks. The data obtained were analyzed using Microsoft excel, descriptive statistics, inferential statistics for hypothesis testing and IBM statistical package for social Sciences (SPSS). The levels of significance in testing hypotheses were set at less than 0.05.

RESULTS

Figure 1: Cluster bar chart illustrating age among study participants

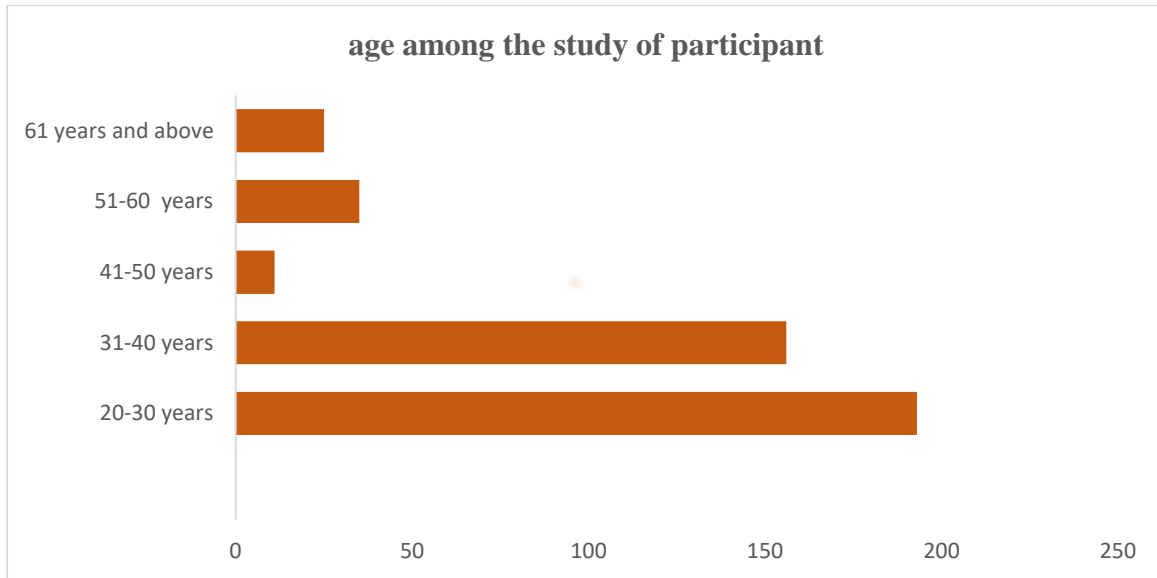
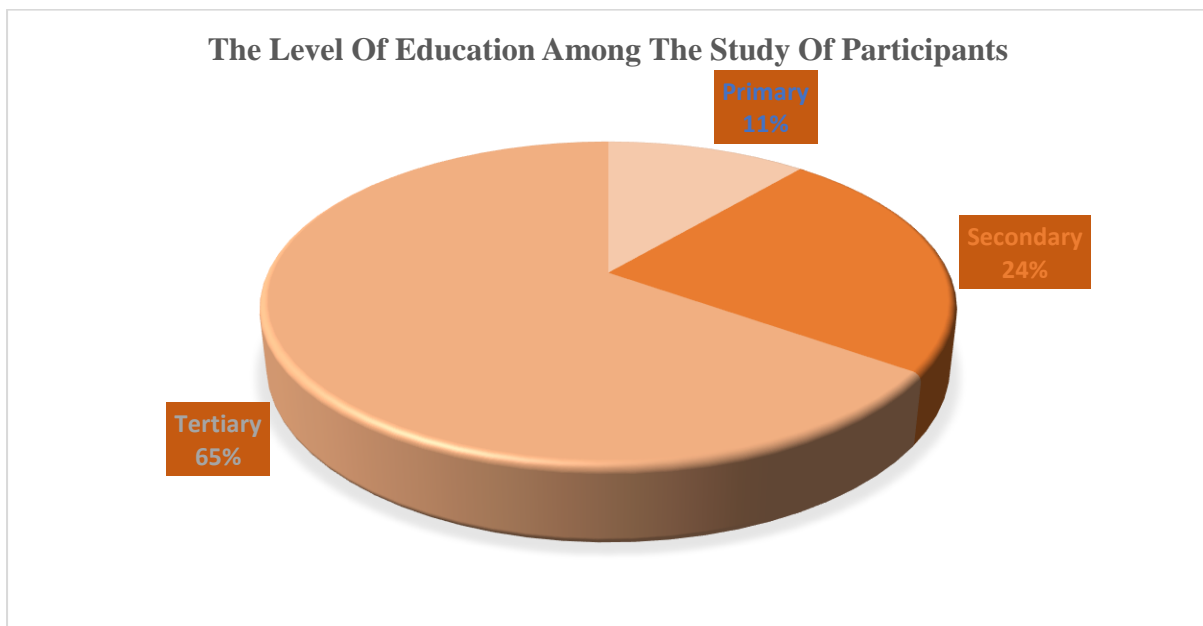


Fig 2: 3D pie-chart illustrating the level of education among the study of participants



**Table 1: Showing Socio-Demographic Information (continued) (n=420)**

Variable	Frequency (%)
Gender (n=420)	
Female	360 (85.7)
Male	60 (14.3)
Marital Status (n=420)	
Married	349 (83.1)
Single	37 (8.8)
Widowed	34 (8.1)
Religion (n=420)	
Christian	409 (97.4)
Traditionalist	11 (2.6)
Occupation (n=420)	
Farming	3 (0.7)
Hairdresser	14 (3.3)
Health worker	117 (27.9)
Others	84 (20.0)
Teaching	97 (23.1)
Trader	105 (25.0)

Figure 1, Figure 2 and Table 1 above show the demographic data of respondents. The result revealed that majority of the respondents (45.9%) were within 20-30 years, 65.2% had tertiary education, 85.7% were females, 83.1% of the respondents were married, 97.4% were predominantly Christians, and for occupation, majority were health workers and traders, 117 (27.9%) and 105 (25%) respectively.

Table 2a: Showing Knowledge of Community Based Healthcare Insurance (n=420)

Variable	Response		Remarks
	No (%)	Yes (%)	
CBHI helps clients to reduce spending money on healthcare?	36 (8.6)	384 (91.4)	Yes
CBHI covers inpatient and outpatient care?	109 (26.0)	311 (74.1)	Yes
CBHI doesn't cover medical care for cosmetic surgeries?	299 (71.2)	121 (28.8)	Yes
Is community-based healthcare insurance in your town?	122 (29.1)	298 (80.0)	Yes
Are you aware of the benefit package of CBHI?	134 (31.9)	286 (68.1)	Yes
Have you enrolled into the scheme?	107 (25.5)	313 (74.5)	Yes

Table 2a reveals that 91.4% were correct that CBHI helps clients to reduce spending on healthcare while 8.6% were not. 74.1% affirmed that CBHI covers both inpatient and outpatient care whereas 26% did not. 80% of the respondents had CBHI in their town; however, 29.1%



did not have the insurance in their town. Although 74.5% have enrolled into the scheme, only 68.1% are aware of the benefit package.

Table 2b: Showing Knowledge of Community Based Healthcare Insurance (continued) (n=420)

Variable	Response		Remarks
	False (%)	True (%)	
Does out-of-pocket payment involve paying for healthcare out of one's own resources?	59 (14.1)	361 (86.0)	T
Does patients paying with their own money for healthcare promote fairness in the use of healthcare services?	165 (39.3)	255 (60.7)	T
Is CBHI founded by the community to help those in the informal sector?	177 (42.1)	243 (57.9)	T
Can CBHI increase poor people's access to healthcare?	15(3.6)	405 (96.4)	T
Under the CBHI program, do you pay money in order for the insurance to finance your future healthcare needs?	84 (20.0)	336 (80.0)	T
Does it involve money contributed by all to benefit all concerned?	138 (32.9)	282 (67.1)	T
Is it set up for profit making?	229 (54.5)	191 (45.5)	T
Does CBHI encourage/promote health seeking behavior among people living with NCDs?	12 (2.9)	408 (97.1)	T

Table 2b reveals that 361 (86%) were sure enough on what out-of-pocket payment means whereas 59 (14%) were not; 243 (57.9%) were right that CBHI was founded by the community to help those in the informal sector although 177 (42.1%) said it was false. 405 (96.4%) were correct in the context that insurance can increase poor people's access to healthcare but 15 (3.6%) did not get it right. 408 (97.1%) accepted that it is true that CBHI encourages health seeking behaviors while about 12 (2.9%) said it was false.

Table 3: Decision Table – Rating/Grading Respondents Level of Knowledge of Community-Based Healthcare Financing (n=420)

Variables	Frequency (%)	Decision scores/grades
Level of Knowledge Grading		
Good/high level of knowledge	269 (64.1)	70 and above
Intermediate/Moderate	105 (25.0)	41-69%
Poor level of knowledge	46 (10.9)	0-40%



Table 3 shows the level of knowledge grading: a score below 40% is low knowledge, 41-69% is moderate, 70% and above is high. From the response, 64.1% had a good knowledge, 25% had a moderate knowledge while 10.9% had a poor knowledge of CBHI.

Table 4: Identifying Payment Strategies Used in Management of NCDS n=420

Variable	Statistics
Which health condition(s)/NCDs do you manage?	
Diabetes mellitus	15 (3.6)
Hypertension	60 (14.3)
Cancer	0 (0)
Others	71 (16.9)
Pregnancy related health conditions	274 (65.2)
How do you manage the health condition (NCDS)?	
Hospital visits under CBHI	216 (51.4)
Self-medication	131 (31.2)
Herbal remedy	0 (0)
Visit to hospital	73 (17.4)
Support group	0 (0)
How do you pay for your treatment?	
Out-of-pocket payment	205 (48.8)
Through CBHI	215 (51.2)
Support group	0 (0)
Loan	0 (0)
How do CBHI enrollees pay for insurance premiums?	
Weekly	0 (0)
Monthly	35 (8.3)
No idea	96 (22.9)
Yearly	289 (68.8)
How much do you earn monthly?	
N10,000-20,000	118 (28.1)
N21,000-40,000	100 (23.8)
N41,000-60,000	107 (25.5)
N61,000-100,000	7 (1.7)
Above 100,000	5 (1.2)
Below 10,000 naira	83 (19.8)

Table 4 reveals that 51.4% manage their health condition through hospital visits under CBHI while 31.2% engage in self medication; the least which is 17.4% visit the hospital although not under CBHI scheme. More so, 51.2% pay for their treatment through CBHI whereas 205 (48.8%) pays through their pocket.



Table 5: Test of Association between Their Level of Education and Knowledge of Community Based Health Financing among Community Members (n=420)

Level Of Education Vs	Level Of Knowledge			X ² -Value	P-Value
	Good knowledge	Intermediate	Poor knowledge		
Primary	25 (53.2)	16 (34)	6 (12.8)	31.58	0.001*
Secondary	44 (44.4)	34 (34.3)	21 (21.2)		
Tertiary	200 (73)	55 (20.1)	19 (6.9)		

/-Statistically significant (p-value <0.05)*

Table 5 result of the chi-square test shows a significant association between respondents' level of education and their level of knowledge of community based health insurance (CBHI). Therefore, the null hypothesis (H₀) is rejected.

Table 6: Test of Association between Their Occupation and Payment Strategies Used in the Management of Non-communicable Diseases among Community Members (n=420)

Payment Strategies Vs	Occupation						X ² -Value	P-Value
	Farming	Hairdresser	Health Worker	Others	Teaching	Trader		
How do you pay for your treatment?								
Out-of-pocket payment	1 (0.5)	7 (3.4)	54 (26.3)	47(22.9)	51 (24.9)	45(22)	4.38	0.496*
Through CBHI	2 (0.9)	7 (3.3)	63 (29.3)	37(17.2)	46 (21.4)	60(27.9)		
Support group	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)		
Loan	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)		

/-Statistically significant (p-value <0.05)*

From Table 6, the result of the chi-square test showed no significant association between the mode of payment for treatment and their occupation. Therefore, the null hypothesis is accepted.



DISCUSSION

The findings based on the level of knowledge of respondents revealed that 64.1% have good knowledge; just a small percentage (10.9%) have poor knowledge. This is in agreement with the study conducted in the North Central Zone of Nigeria by Banwat *et al.* (2012) that 71% of the respondents had a good knowledge of community-based healthcare insurance. Also, findings on the study of knowledge and perception of Community-Based Health Insurance among rural communities in Abuja conducted by Ogben (2014) revealed that there was a high level of awareness among the study population, although knowledge on how the scheme is financed was low. However, this was in contrast with the findings from the research carried out by Yusuf *et al.* (2019) which implied that most of the respondents (about 80.2%) have not heard about Community-Based Health Insurance and therefore have deficient knowledge; only 9% had a good knowledge. In the same light, studies carried out in rural communities in Ilorin, Nigeria by Babatunde *et al.* (2014) recorded a low level of knowledge among the respondents. When compared to this study, it can be attributed to the educational level/qualification of the respondents as the majority (21.7%) had only primary education, whereas in this study, 65.2%, which is the majority, have tertiary education. This may be the reason why deficiency in knowledge was recorded.

The findings in Table 4 under the category of how you pay for treatment of non-communicable diseases revealed that 48.8% still pay through their pockets while 51.2% pay through Community-Based Health Insurance. More so, 51.4% and 17.4% visit the hospital for treatment although the latter is not seeking treatment under Community-Based Health Insurance; 32.1% engage in self-medication. This is in agreement with the findings from a study conducted by Bekele (2022) on the effect of community-based health insurance on catastrophic health expenditure among chronic patients in Ethiopia, which revealed that the incidence of catastrophic health expenditure was found in 39% of the total respondents, which was higher in the uninsured patients (47%) than the insured ones (31%). Indirect costs were found to be the major sources of out-of-pocket payment for insured patients while direct costs were for patients who were not insured.

IMPLICATIONS OF FINDINGS

The findings revealed that although the level of knowledge is above average, some people still do not know about the benefit package of the insurance. Hence, there is a need to create more awareness about the benefit package. Also, an average number of people still manage non-communicable diseases through out-of-pocket payment, which may lead to catastrophic health expenditure. The reason may be because the benefit package does not offer wide illness coverage; hence, there is a need to review the insurance policy in order to have a wider coverage and increase the uptake of CBHI.



CONCLUSION

The study concluded that the level of knowledge of community-based health insurance was above average; this may be because most of the community members are well educated and some have enrolled into the scheme. Although some were not aware of the benefit package, a lot agreed that community-based health insurance will promote health seeking behavior among people living with non-communicable diseases. It was discovered that in the quest to manage non-communicable diseases, half of the people still pay through their pockets either when they visit the hospital or through self medication.

RECOMMENDATIONS

1. Increase access to community-based healthcare financing information, services and what the insurance hopes to achieve through creating awareness.
2. Encourage those in the informal sector to enroll in the scheme.
3. Government should plan and develop policies that will discourage mismanagement of funds by the program managers, and increase accountability and trust in the scheme.
4. Benefit packages should be planned in such a way that it will have a wide illness coverage to ensure that people get quality health services where and when they need them without suffering financial hardship.

LIMITATIONS AND FURTHER RESEARCH

Geographical barrier, time constraint, respondents' unpredictable behavior and lack of funds were limitations faced by the researchers during the course of the study. The researchers suggest that a similar study should be replicated in other states or the country as a whole. Further studies on attitude and perception of out-of-pocket payment in management of non-communicable diseases among community members as well as study on the effectiveness of health insurance towards achieving universal health coverage are suggested.

REFERENCES

- Babatunde, O. A., Babatunde, O.O., Salaudeen, A. G., Aderibigbe, S. A., Adewoye, K. R., Alao, T. A., Idowu, O. A., and Atoyebi, O. A. (2014). Knowledge of community health insurance among household heads in rural communities of Ilorin, Nigeria. *International Journal of Science, Environment* 3(3), 800-810.
- Banwat, M. E., Agbo, H. A., Hassan, Z., Lassa, S., Osagie, I. A., Ozoilo, J. U., and Ogonna, C. (2012). Community based health insurance knowledge and willingness to pay; A survey of a rural community in North Central Zone of Nigeria. *Jos Journal of Medicine* 6(1). Retrieved from <https://www.ajol.info/index.php/jjm/article/view/78884> on 23 February, 2023.



- Bekele, M. (2022). *Effect of Community based health insurance on catastrophic health expenditure among chronic patients in Asella referral hospital, South East Ethiopia*. Addis Ababa University, Ethiopia. Retrieved from <http://etd.aau.edu.et/handle/123456789/32200> on 5th December, 2022.
- Ezeokoli, A. (2020, February 11). Be Your Brother's Keeper: Anambra's Adoption Model for Health Insurance. *Nigerian Health Watch*. Retrieved from <https://nigeriahealthwatch.medium.com/be-your-brothers-keeper-anambra-s-adoption-model-for-health-insurance-479dcae72029> on 28 October, 2022.
- Idris, I. O., Oguntade, A. S., Mensah, E. A., and Kitamura, N. (2020). Prevalence of non-communicable diseases and its risk factors among Ijegan-Isheri Osun residents in Lagos State, Nigeria: a community based cross-sectional study. *BMC Public Health* 20, 1258 (2020). Retrieved from <https://doi.org/10.1186/s12889-020-09349-2> on 28th January, 2023.
- Iyalomhe, F. O., Adekola, P. O., and Cirella, G. T. (2021). Community-based health financing: empirical evaluation of the socio-demographic factors determining its uptake in Awka, Anambra State, Nigeria. *International journal for equity in health* 20(235). Retrieved from <https://doi.org/10.1186/s12939-021-01574-4> on 28th January, 2023.
- Odeyemi, I. A. (2014). Community-based health insurance programmes and the national health insurance scheme of Nigeria: Challenges to uptake and integration. *International Journal for Equity Health* 13(20). Retrieved from <https://doi.org/10.1186/1475-9276-13-20> on 28th January, 2023.
- Ogben, C. (2014). Knowledge and perception of rural communities in Abuja Nigeria on community based health insurance scheme. *South American Journal of Public Health* 2(4)
- Ogben, C., and Ilesanmi, O. (2018). Community based health insurance scheme: Preferences of rural dwellers of the federal capital territory Abuja, Nigeria. *Journal of public health in Africa* 9(1), 540. Retrieved from <https://doi.org/10.4081/jphia.2018.540> on 28th January, 2023.
- Tikkanen, R., Osburn, R., Mossialos, E., Djordjevic, A., and Wharton, G. (2020). *International profiles of healthcare systems 2020*. Common wealth fund.
- United Nations International Children Emergency Fund (2023). *Non-communicable diseases*. Retrieved from <https://www.unicef.org/health/non-communicable-diseases> on 9th february, 2023.
- World Health Organization. (2023). *Universal health coverage*. Retrieved from <http://www.who.int/news-room/fact-sheet/details/universal-health-coverage> on 9th february, 2023.
- Yusuf, H. O., Kanma-Okafor, O. J., Ladi-Akinyemi, T. W., Eze, U. T., Egwuonwu, C. C., and Osibogun, A. O. (2019). Health insurance knowledge, attitude and the uptake of community-based health insurance scheme among residents of a suburb in Lagos, Nigeria. *West African Journal Medicine* 36(2), 103-111.