

Follow-up Performance assessment of a Social Health Insurance Scheme in a southwest Nigeria state

Akande A.O¹, Adewole D.A², Orimadegun B.C¹, Olowolafe T.A³, Osungbade K.O², Ganiyu M. O¹

¹Oyo State Health Insurance Agency, Secretariat, Ibadan, Nigeria

KEYWORDS

ABSTRACT

OYSHIA, performance, coverage, formal, informal, health insurance Aims: Social health insurance and other forms of prepayment health schemes are effective approaches to enhancing access to available healthcare services. While prepayment schemes are generally common and well established in developed countries, they are relatively new and in the early stages of development in sub-Saharan countries, including Nigeria. Social health insurance in Nigeria, hitherto centralized, has devolved to the subnational state levels. The Oyo State Health Insurance Scheme, which is managed by the Oyo State Health Insurance Agency (OYSHIA), is one of the subnational schemes. The present study is a follow-up on the first three-year performance assessment of OYSHIA. The aim is also to assess the performance of the scheme and, most importantly, whether the recommendations made in the first study were used and if these recommendations have had a desirable impact on the scheme.

Methods: Secondary data on enrolment in the social health insurance scheme of Oyo State between July 2020 and June 2023 were downloaded from the server of OYSHIA. The data were collated and analyzed. Data extraction, cleaning, and analysis covered a period of one and a half months (February–AApril, 2024). Excel software was used to analyze the data. Descriptive statistics were used to summarize the data. Population coverage distributions were expressed as frequencies and percentages. Frequency tables and graphs were generated to disaggregate the findings.

Results: Although population coverage was still generally low, as it was in the first three-year performance assessment of the scheme, However, the present study shows that population coverage in the informal sector is very encouraging.

Conclusions: In the absence of external limitations, the Oyo State social health insurance scheme has the potential to perform and achieve universal health coverage.

Acknowledgements: The authors wish to acknowledge the Oyo State Health Insurance Agency for their permission to make use of the data and to submit the manuscript for publication. All enrollees are also appreciated.

Contributions: David Adewole conceived and designed the study. Sola Akande, Boluwatito Orimadegun, and Ganiyu Owolabi were responsible for the data collection and analysis. Adewole, Akande, Orimadegun, Osungbade, and Owolabi contributed equally to the manuscript write-up. All authors read through the manuscript draft a second time. All authors agreed to the final manuscript.

1. Introduction

Social health insurance is a viable means of achieving universal health coverage, reducing inequity in access to healthcare services, and improving health outcomes and population health status and indices (1–5). In recent times, social health insurance has gained ground in developing countries. It was first implemented in Nigeria in 2005 under the name of the National Health Insurance Scheme, NHIS (presently known as the National Health Insurance Authority, NHIA), with the aim of achieving UHC in 2015. Despite this ambitious goal, the population coverage of the scheme remains very low, at less than 10% of the total population of over 200 million people (6). Among other factors, stiff opposition from organized labor unions and that of the states are some of the hindrances to its adoption and uptake by potential beneficiaries, especially those in the formal sector population group (7, 8). In the year 2015, the National Council on Health approved the decentralization of the scheme to enable the subnational governments to own and implement it (9). It was anticipated that UHC would be better achieved using the state sub-national templates as launch platforms for the scheme. There are thirty-six (36) states, including the federal capital territory in Nigeria. Oyo State, in the southwest region of

²Department of Health Policy and Management, College of Medicine, University of Ibadan, Nigeria. Email: ayodadewole@yahoo.com

³Department of Public Health, Leads City University, Ibadan, Nigeria



Nigeria, is one of these states. Following decentralization, many states implemented social health insurance schemes. In Oyo State, the scheme is named the Oyo State Social Health Insurance Scheme, while the body that is implementing it is referred to as the Oyo State Social Health Insurance Agency.

The OYSHIA commenced its state-based social health insurance scheme in 2017. As a part of the efforts to monitor and assess the performance of the scheme, a study was conducted on the scheme in the year 2020. The study essentially assessed the total population coverage of the scheme (10). Studies have shown that achieving UHC through social health insurance schemes takes varied periods of time, some in about a century and in some other cases a few decades. In the traditional European setting, where it all started in countries such as Germany and Belgium, it was reported that UHC was achieved in about a century. Whereas in some countries, such as Costa Rica in Latin America and Japan in Asia, UHC was achieved in only a few decades (11). It has also been reported that in about ten years' postimplementation of a social health insurance scheme, about three-quarters of the population of a specific geographical entity where the scheme was implemented must have been covered (12). In order to have an in-depth assessment of the performance of the Oyo State social health insurance scheme and along specific demographic variables of the population in the state, a three-year analysis of the total population coverage of the Oyo State health insurance scheme was carried out along relevant demographic variables such as age, sex, marital status, occupational sector (formal or informal), and location (rural or urban). Overall, findings published in the South East European Journal of Public Health (10) showed that the scheme has performed poorly in terms of its overall population coverage. Study findings were shared with OYSHIA with suggestions on what could be done to reposition the scheme for better performance. As part of its scheduled activities of awareness creation and knowledge on health insurance with a focus on the OYSHI scheme, OYSHIA has embarked on regular awareness creation and advocacy activities. Regarding this, the insurance agency has been on intensive and continuous campaigns to drive enrolment in the scheme. It has engaged the use of outreaches and the media, especially the radio, to drive the enrollment campaign activities. The radio program especially involved phone-in sessions conducted in both Yoruba (the indigenous language of the majority of the inhabitants of Oyo State) and English. Pidgin (broken) English is also used to deliver important messages sometimes, when, and where necessary. The media campaigns give interested members of the public the opportunity to ask questions and clarify less understood areas under enrolment, payment, benefit packages, service delivery, and similar others. Advocacy visits were also paid to leaders in the communities with IEC (information, education, and communication) materials for enlightenment purposes. Previous studies have affirmed that awareness, good knowledge, and understanding of the concept of health insurance are drivers of enrolment in prepayment schemes (13–16). The present study aimed to do a follow-up on the first three-year post-implementation assessment of the scheme. This will enable an objective performance appraisal of the scheme, assess the compliance with suggestions made following the first three-year post-implementation study of the scheme, and examine the prospect of achieving UHC in record time, as was the experience in other climes (11).

2. Methodology Study Area

This is a descriptive cross-sectional study on OYSHIA activities, using population coverage of OYSHIA in the last three years (July 2020–June 2023) as a proxy for performance assessment. This follows a similar three-year (July 2017–June 2020) performance assessment of the scheme (10) on the activities of the Oyo State social health insurance scheme. Oyo State is located in the southwest region of Nigeria. The state capital is Ibadan, a city a distance of about 150 km from Lagos, the former capital of Nigeria. The state has a population of about 7 million people, and typical of most developing countries, especially in sub-Saharan Africa, it has a larger informal population group than the formal. Difficulties in achieving major success with regards to enrolment and membership in social health insurance schemes in many developing countries have been attributed to this larger informal sector, whose data are usually not documented and thus unavailable for planning purposes (4). In addition to these, the majority lives in rural areas and urban slums, where access to information on beneficial social policies is usually poor



(17). The study involved the use of secondary data. For ease of comparison, the use of the data in the present study followed essentially what was done in the first study; data on enrolment in the scheme were downloaded from the website of the scheme. Downloaded data were used to plot a graph-displaying pattern of enrolment in the scheme on a monthly basis over a period of 36 months (July 2020–June 2023) (Fig. 1). Other relevant charts were produced from the data. There was no need for ethical approval for this study because secondary data on all enrollees in the health insurance scheme of the state were used. There were no exclusion criteria.

Data collection and analysis

Data on monthly enrolment in the state's health insurance scheme was downloaded from the scheme's website. The collected data were analyzed to suit the purpose of the study. The downloading of data from the website and subsequent analyses were accomplished over a period of three and a half months (December–mid-March, 2024). Data were used to plot a graph-displaying pattern of enrolment in the scheme by month over a period of 36 months (July 2020–June 2023) (Fig. 1). Other relevant charts were produced from the data. The data were publicly available online. There was no need for ethical approval for this study because secondary data on all enrollees in the health insurance scheme of the state were used. There were no exclusion criteria.

3. Results and Discussion

Figure 1 below shows the pattern of enrolment in the health insurance scheme in the last three years since June 2020–JJuly 2023, with a pattern of periods of increased enrolment followed by a decline in enrolment in the scheme. However, it should be noted that there was a period of prolonged decline in enrollment between July 2020 and September 2021. This period coincided with the time of the COVID-19 pandemic, which started in the last quarter of 2019 and gradually reduced its intensity until the early part of 2022, immediately after which the spike started to assume its pattern of a sharp rise and decline again.

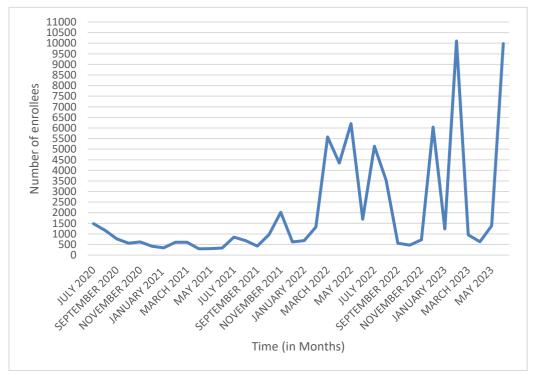


Figure. 1. A 3-year monthly enrolment pattern in OYSHIA July 2020 – June 2023

Fig. 2. below shows that the older people were, the more likely they were to enroll in a health insurance



scheme. Individuals who were in the 60-79 years' age group had the highest representation (36.8%), while those less than 20 years and those between 20 and 39 years were 14.1% and 21.6%, respectively. Those who were older than 79 years had the least enrollment (4.4%). While Fig. 3 shows that females had a higher enrolment than males (59.7% vs. 40.3%), Fig. 4 shows that married individuals had the highest enrolment at 73.2% compared with singles at 23.0% and previously married individuals at 3.9%.

Fig. 2 below depicts the enrollees by age group.

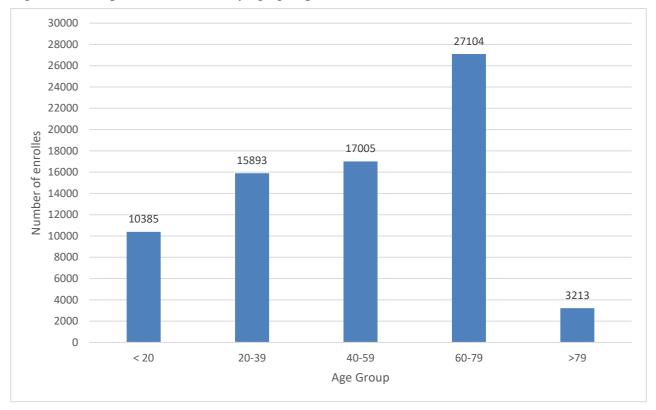


Figure. 2. Enrolment by age group in OYSHIA

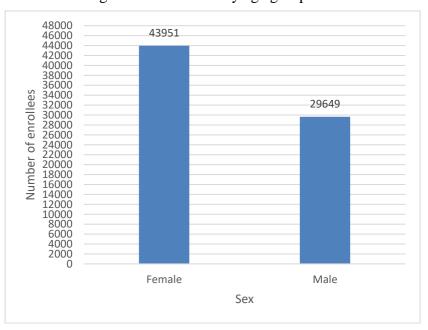


Figure. 3 Pattern of Male and Female enrolment in OYSHIA

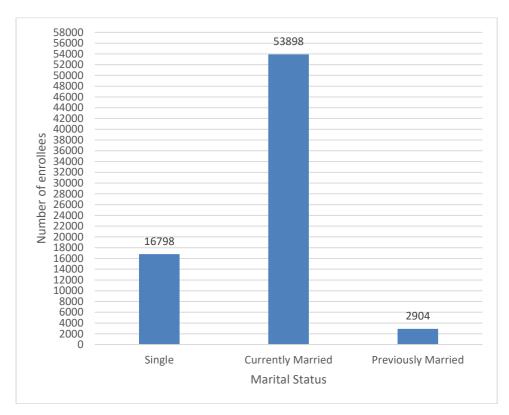


Figure. 4 Enrolment by marital status in OYSHIA

Fig. 5 shows that the segment of the population with the highest enrolment was the informal sector at 46.1%, followed by retirees at 22.6%, and civil servants at 16.8%. It should be noted that those individuals in the category of children did not enroll by themselves but were rather registered with the families to which they belonged, as required by the law that enacted the insurance scheme.

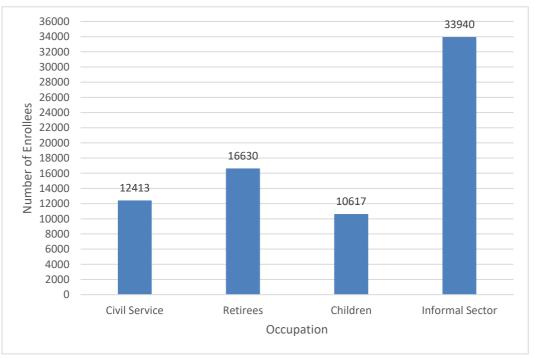


Figure. 5 Pattern of enrolment among different segments of the population

Discussion

In this present study, the pattern of enrolment was similar to the previous one carried out in the same study population, with characteristic periods of high and low enrolment. However, what is striking in



the pattern of enrolment in the present study is that, starting from the month of July 2020, there was a remarkable decline in enrolment, as shown in the graph that depicts the enrolment pattern; the line graph assumed a plateau to almost non-enrolment level. This plateau lasted up until the early parts of 2022, except for a single rise in November 2021. Thereafter, the enrollment pattern assumed the usual pattern of a rise, followed by a fall, and the cyclical pattern continued that way. It should be noted that this period of 'plateau' in the pattern of enrolment coincided with the COVID-19 pandemic in the study area as it was in all other parts of Nigeria and globally (18–21). This period was remarkable with an unprecedented observation of strict in-door stay, popularly termed 'lockdown', everywhere, with only scanty out-door activities permitted for extremely essential services and activities that could not be carried out without going to public places (18). Thus, going to healthcare facilities and related places, except for a few healthcare services that could not be rendered without visiting a healthcare facility, was not permitted. Inadvertently, this situation may have affected the act of interested individuals visiting designated places to register and enroll in the health insurance scheme of Oyo State, and thus the remarkable low enrolment pattern. It is assumed that the graph not reaching the absolute zero (nonregistration) line could have been the result of a few individuals who had access to the insurance scheme's online registration platform and were thus able to register online. Several previous studies have attributed the inability to fully render and/or receive essential health care services by physical means to the presence of the highly infectious COVID-19, which started in late 2019 and lingered for a long time all over the world (19–21). The scientific community is of the opinion that the infection and the disease have not totally disappeared. For instance, a study on the use of health care facilities in urban Ethiopia indicated that there was a profound decline in health facility patronage during the pandemic (18). This finding was similar to other studies carried out on the impact of COVID-19 on healthcare service delivery in some other countries. A study on the effect of the COVID-19 pandemic on the use of maternal and child health services in Malaysia shows that essential child health and maternal healthcare services showed a remarkable decline during the lockdown (21). In another study on sexual and reproductive health services in primary health facilities in Nigeria, a significant reduction in healthcare service utilization during the lockdown was also reported (19). In a scoping literature review on the effects of outbreaks, pandemics, and epidemics on sexual and reproductive health services in sub-Saharan Africa, the major findings were declined access to and utilization of facilitybased health services mainly as a result of travel restrictions, fear of infections among service providers and healthcare consumers, shutdown health facilities, absence of healthcare workers, commodities, and services, among others, with likely undesirable consequent health outcomes (20). As indicated in the graph, there was an indication that there was a rise in enrolment at the end of the decline, which coincided with a gradual recovery from the pandemic and the lifting of lockdown (21).

In recent times, digital technologies have been made use of as a means of circumventing challenges posed by epidemics to accessing healthcare services (20, 22). The use of mobile technologies to register for and enroll in health insurance schemes is becoming more popular in developing countries, including Nigeria (23). In recent times, the prospect of the use of remote consulting, a form of digital healthcare, as an avenue to deliver healthcare services is becoming more realistic, as both the supply and demand sides of the healthcare market have indicated in a recently concluded trial among primary health care workers and consumers in Nigeria (24). Very recently, the entry and investment of foreign telecommunications industries into the digital space of Nigeria will certainly provide enabling environments for digitalization on both the demand and supply sides of healthcare markets (25). This is evident by recent policies implemented by the Nigerian government through the National Communications Commission that are poised to enable the establishment and growth of digital businesses and related activities in all sectors, including the health system (26). This is also supported by the policies of the Central Bank of Nigeria, which supports the digitization of payments in the banking industry and other financial institutions (27). It is important that relevant actors in the health system of Nigeria and similar other settings explore this avenue as a means of implementing a resilient health system that is capable of providing essential healthcare and related services that, hitherto, would have been impossible to provide without digital health technology. This should include electronic



registration and enrollment in health insurance schemes through designated platforms.

This study revealed the propensity of much older individuals and women to enroll in health insurance schemes. Previous studies have shown that individuals who are more likely to have a greater need for healthcare services, such as old people and women, tend to adopt health insurance schemes more than younger people and men, respectively. The demand for health insurance among older individuals has been likened to the production process in industrial settings; the quantity (and quality) of output is determined by the factors (quantity and quality) of input, that is, the more and better the input, so likewise the output (28). Using this model, it has been argued that the good health status and wellbeing of most individuals are considered innate or biologically inherited input bestowed at birth, and it determines the level of productivity and functionality of individuals. However, as age advances, this innate inheritance dwindles, reducing the sense of wellbeing and productivity of individuals. In order to mitigate the reduced quality of input, the demand for a safety net increases. Enrollment and membership in health insurance schemes and the associated benefits of enhanced access to available healthcare services are potent safety nets in readiness for times of healthcare need (29). This also explains the low demand for health insurance among those who are young and are apparently healthy (13). This study shows that individuals who were older than seventy had the lowest enrollment status. These could be due to many factors, such as poverty, poor knowledge about the scheme, and physical debilitation, among others (4, 30).

Married and female study participants were found to have a higher enrollment status than single and male participants. In addition to their spouses, married people are more likely to have dependents from both their immediate and extended families. The individuals in these families will usually have different healthcare needs at various times and levels. In such a situation, meeting healthcare costs by other means than a prepayment method, such as a health insurance scheme, could prove catastrophic. In addition to reproductive health needs, a similar explanation could be made for the higher tendency of female individuals to enroll in health insurance schemes than their male counterparts (13, 31). Enrollment and membership in health insurance schemes are also evidence of well-known better health-seeking behavior among female individuals compared to their male counterparts (32). Lower health-seeking behavior among men has been attributed to traditional masculinity (33) which tends to prioritize health-seeking less compared to women, which must have affected the lower enrollment status of men in this current study. It is important that programs that will positively impact enrollment in prepayment schemes, including health insurance, among men be desirable.

Although the enrollment figure in the present study was higher than what was recorded in the previous study, the increment is less than what was expected after a three-year period. While the total enrollment figure was 55,119 in the last study, it was 73,600 in the current one. This is just about a third of the 2020 figure; in other words, just above one-third of the total enrollment figure recorded in the last study. The lower than expected enrolment figure could be attributed to many factors, among which COVID-19 pandemics will easily play a central role, as was clearly suggested in the diagram showing the enrolment pattern between 2020 and the early part of 2022. Although the COVID-19 pandemic was not a confirmed reason, in this environment, other factors that are known to contribute to low enrolment in health insurance schemes are poverty, a poor level of awareness and knowledge of health insurance, and superstitious beliefs towards prepayment schemes (4).

A closer analysis of the total enrolment figure in the two studies shows that, in the previous study (July 2017–June 2020), the formal sector was responsible for more than ninety percent of the total enrolment figure, while it was less than twenty percent in the present study (July 2020–JJune 2023). This is an encouraging situation for the scheme. Generally, in developing countries, health insurance membership favors the formal sector workers as a result of many reasons, among which are difficulty in premium collection among the formal sector workers, poverty, and poor knowledge of health insurance schemes (4, 31, 34). The turn-around in health insurance enrolment among the informal sector workers as seen in this study could be attributed to the persistent and focused multi-pronged campaigns and advocacy visits embarked upon by the agency. Studies have shown that consistent and focused advocacy visits,



exposure to media campaigns, and language that is well understood are drivers of enrolment in health insurance schemes (5, 14, 31). In the absence of the COVID-19 epidemics, it could be averred with a reasonable level of caution that enrolment in OYSHIA would have been higher than what it is presently. A higher enrolment among the informal compared to the formal sector of the population, as demonstrated in this study, is a measure of the improved performance of OYSHIA when compared to the findings of the previous study conducted on the 2017–2020 assessment cycle. The enrollment status of the informal sector was used as a metric of performance assessment in the two studies that assessed the performance of OYSHIA. While the first performance assessment study of OYSHIA (July 2017–June 2020) was declared poor, the present performance assessment study is good and encouraging, specifically because of the enrollment status of the informal sector, which is much better than the formal sector.

4. Conclusion and future scope

Limitation and recommendations

This study made use of secondary data. The use of primary data would enable a better understanding of the dynamics of enrollment, including enabling and inhibiting factors. It is recommended that further studies on the enrollment activities of this agency involve a mixed-methods study that will include the collection of primary and secondary data. The approach of community engagement embarked upon by the agency seemed to be working. It is recommended that the agency intensify this method for better population coverage and make efforts towards attaining universal health coverage

Reference

- [1] Normand C, Busse R. Social health insurance financing. In: Funding Health care: options for Europe. 2002. Buckingham. Philadelphia. Open University Press 1st Ed; 2002:59-79.
- [2] Atun R, de Andrade LO, Almeida G, Cotlear D, Dmytraczenko T, Frenz P, et al. Health-system reform and universal health coverage in Latin America. Lancet 2015; 385:1230-47.
- [3] Lagomarsino G, Garabrant A, Adyas A, Muga R, Otoo N. Moving towards universal health coverage: health insurance reforms in nine developing countries in Africa and Asia. Lancet 2012; 380:933-43.
- [4] Chuma J, Mulupi S, McIntyre D. Providing financial protection and funding health service benefits for the informal sector: Evidence from sub-Saharan Africa. RESYST Working Paper 2. Available from: https://resyst.lshtm.ac.uk/resources/resyst-working-paper-2-providing-financial-protection-and-funding-health-service-benefits (accessed: April 18, 2024).
- [5] Arin D, Hongoro C. Scaling up national health insurance in Nigeria: learning from case studies of India, Colombia, and Thailand. Washington, DC: Futures Group Health Policy Project. 2013.
- [6] Federal Ministry of Health Nigeria. Strategic Review of Nigeria's National Health Insurance Scheme. Abuja Nigeria: 2014.
- [7] Onoka C, Onwujekwe O, Uzochukwu B, Ezumah N. Promoting universal financial protection: constraints and enabling factors in scaling-up coverage with social health insurance in Nigeria. Health Res Policy Syst. 2013; 11:20.
- [8] Adewole D. A, Osungbade K.O. Nigeria National Health Insurance Scheme: A Highly Subsidized Health Care Program for a Privileged Few. International Journal of Tropical Disease & Health. 2016;19(3):1-11.
- [9] 2016-Nigeria-Health-Insurance-A-1 https://www.pharmaccess.org/wp-content/uploads/2018/04/2016-Nigeria-Health-Insurance-A-1.pdf (accessed: April 19, 2024).
- [10] Adewole, D.A., Ilori, T., Ladepo, W., Akande, O.A. and Owolabi, G. Pattern of population coverage of a social health insurance scheme in a Southwest Nigeria State: A 3-year post-implementation evaluation. South Eastern European Journal of Public Health 2021; 2
- [11] Carrin G, James C. Social health insurance: key factors affecting the transition towards universal coverage. Int Soc Secur Rev 2005; 58:45-64.
- [12] Carrin G, James C, Adelhardt M, Doetinchem O, Eriki P, Hassan M, et al. Health financing reform in Kenya assessing the social health insurance proposal. S Afr Med J 2007;97:130-5.
- [13] Kirigia JM, Sambo LG, Nganda B, Mwabu GM, Chatora R, Mwase T. Determinants of health insurance ownership among South African women. BMC Health Serv Res 2005;5:17.
- [14] Nyagero J, Gakure R, Keraka M. Health insurance education strategies for increasing the insured among older population—a quasi experimental study in rural Kenya. Pan Afr Med J 2012;12.
- [15] Alesane A, Anang BT. Uptake of health insurance by the rural poor in Ghana: determinants and implications for policy. Pan Afr Med J. 2018;31:124. doi: 10.11604/pamj.2018.31.124.16265. PMID: 31037184; PMCID: PMC6462494.



Follow-up Performance assessment of a Social Health Insurance Scheme in a southwest Nigeria state. Posted: 04-07-2024, Vol. (XXIV)

- [16] van der Wielen N, Falkingham J, Channon AA. Determinants of National Health Insurance enrolment in Ghana across the life course: Are the results consistent between surveys? Int J Equity Health. 2018;17(1):49. doi: 10.1186/s12939-018-0760-x. PMID: 29685137; PMCID: PMC5913914
- [17] National Population Commission, Nigeria. Nigeria Demographic and Health Survey 2018.[Internet]. Abuja Nigeria. (Accessed: April 20, 2024). Available: https://dhsprogram.com/pubs/pdf/SR264/SR264.pdf
- [18] Shuka Z, Mebratie A, Alemu G, Rieger M, Bedi AS. Use of healthcare services during the COVID-19 pandemic in urban Ethiopia: evidence from retrospective health facility survey data. BMJ Open. 2022 Feb 23;12(2):e056745. doi: 10.1136/bmjopen-2021-056745. PMID: 35197352; PMCID: PMC8882656.
- [19] Adelekan B, Goldson E, Abubakar Z, Mueller U, Alayande A, Ojogun T, Ntoimo L, Williams B, Muhammed I, Okonofua F. Effect of COVID-19 pandemic on provision of sexual and reproductive health services in primary health facilities in Nigeria: a cross-sectional study. Reprod Health. 2021;18(1):166. doi: 10.1186/s12978-021-01217-5. PMID: 34348757; PMCID: PMC8334336.
- [20] Ng'andu M, Mesic A, Pry J, Mwamba C, Roff F, Chipungu J, Azgad Y, Sharma A. Sexual and reproductive health services during outbreaks, epidemics, and pandemics in sub-Saharan Africa: a literature scoping review. Syst Rev. 2022;11(1):161. doi: 10.1186/s13643-022-02035-x. PMID: 35945580; PMCID: PMC9361234.
- [21] Mohd Ujang IR, Hamidi N, Ab Hamid J, Awang S, Zulkifli NW, Supadi R, Mohamed NE, Sooryanarayana R. The COVID-19 pandemic and disruptions to maternal and child health services in public primary care Malaysia: a retrospective time-series analysis. BMJ Glob Health. 2023;8(11):e013397. doi: 10.1136/bmjgh-2023-013397. PMID: 37949498; PMCID: PMC10649372.
- [22] Meessen B. The role of digital strategies in financing health care for universal health coverage in low-and middle-income countries. Global Health: Science and Practice. 2018;6(Supplement 1):S29-40.
- [23] Okuzu O, Malaga R, Okereafor K, Amos U, Dosunmu A, Oyeneyin A, Adeoye V, Sambo MN, Ebenso B. Role of digital health insurance management systems in scaling health insurance coverage in low-and Middle-Income Countries: A case study from Nigeria. Frontiers in Digital Health. 2022;4:1008458.
- [24] Sturt J, Griffiths F, Ajisola M, Akinyemi JO, Chipwaza B, Fayehun O, Harris B, Owoaje E, Rogers R, Pemba S, Watson SI. Safety and upscaling of remote consulting for long-term conditions in primary health care in Nigeria and Tanzania (REaCH trials): stepped-wedge trials of training, mobile data allowance, and implementation. The Lancet Global Health. 2023;11(11):e1753-64.
- [25] Adepetun, A. O., & Adebayo, O. T. (2022). A survey on reliability of smartphones among undergraduate students based on brands. Equity Journal of Science and Technology, 9(1), 23-23.
- [26] Adepetun A 2023. NCC engages Musk's Starlink on cost reduction, service expansion https://guardian.ng/technology/ncc-engages-musks-starlink-on-cost-reduction-service-expansion/. (Accessed; April 16, 2024)
- [27] Goodwin-Groen, R. (2015). Cashless Nigeria: Facilitating the Transition to Digital Payments · Better Than Cash Alliance. https://www.betterthancash.org/news/cashless-nigeria-facilitating-the-transition-to-digital-payments (Accessed: April 18, 2024)
- [28] Grossman HI. A choice-theoretic model of an income-investment accelerator. The American Economic Review. 1972 Sep 1;62(4):630-41. (Grossman HI. A choice-theoretic model of an income-investment accelerator. Am Econ Rev. 1972;62(4):630-641.)
- [29] Jütting J. Health insurance for the poor?: determinants of participation in community-based health insurance schemes in rural Senegal. OECD Development Centre: Working Paper No. 204; 2004.
- [30] Quartey T, Peprah C, Morgan AK. Determinants of national health insurance enrolment among people at risk of statelessness in the Awutu Senya East Municipality and Gomoa East District of Ghana. BMC Health Serv Res. 2023;23(1):153. doi: 10.1186/s12913-022-08738-0. PMID: 36788530; PMCID: PMC9927045.
- [31] Kimani JK, Ettarh R, Warren C, Bellows B. Determinants of health insurance ownership among women in Kenya: evidence from the 2008-09 Kenya demographic and health survey. Int J Equity Health. 2014;13:27. doi: 10.1186/1475-9276-13-27. PMID: 24678655; PMCID: PMC3973618.
- [32] Parent MC, Hammer JH, Bradstreet TC, Schwartz EN, Jobe T. Men's Mental Health Help-Seeking Behaviors: An Intersectional Analysis. Am J Mens Health. 2018;12(1):64-73. doi: 10.1177/1557988315625776. Epub 2016 Jan 11. PMID: 29226771; PMCID: PMC5734540.
- [33] Seidler ZE, Dawes AJ, Rice SM, Oliffe JL, Dhillon HM. The role of masculinity in men's help-seeking for depression: A systematic review. Clin Psychol Rev. 2016;49:106-118. doi: 10.1016/j.cpr.2016.09.002. Epub 2016 Sep 10. PMID: 27664823.
- [34] Adewole DA, Adebayo AM, Udeh EI, Shaahu VN, Dairo MD. Payment for Health Care and Perception of the National Health Insurance Scheme in a Rural Southwest Nigeria. Am J Trop Med Hyg. 2015; 93(3):648-54.