

Healthcare Utilisation Among Corps Members Under the National Health Insurance Programme in Rivers State, Nigeria

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Abstract

The National Youth Service Corps scheme is a mandatory one-year programme for Nigerian graduates aimed at fostering national unity, youth development, and community service. In 2022, the Federal Government introduced a national health insurance initiative, known as the Group, Individual and Family Social Health Insurance Programme-n, to cater for the healthcare needs of corps members. This study evaluated the utilisation of health services among corps members under the programme in Rivers State, Nigeria. A descriptive cross-sectional survey was conducted among 415 corps members in Rivers State, Nigeria, using a pretested, self-administered, anonymous, structured questionnaire. Data was analysed using SPSS version 23. Descriptive statistics (frequency tables and cross-tabulations) were used to summarise the data, while inferential statistics to test for association between variables were done using the chi-square test. The level of significance was set at $p < 0.05$. The majority of the respondents were between the ages of 24 and 26 years, with a mean age of 25.9 ± 2.4 years. Outpatient services (85.3%), laboratory/radiological investigations (76.6%), and gynaecological services (15.4%) were the most commonly accessed services. Female corps members reported higher utilisation rates compared to males. This study provides baseline insights into healthcare service utilisation under the national health insurance programme among corps members in Rivers State and recommends further research to inform policy, improve programme effectiveness, and enhance healthcare delivery for corps members and the wider Nigerian population.

Keywords: Health Insurance, Health services, National Youth Service Corps, Nigeria, Utilisation.

Introduction

The National Youth Service Corps scheme (NYSC) is a mandatory one-year programme established by the Nigerian Government for young Nigerian graduates of tertiary institutions [1]. Under this scheme, young individuals who have passed through duly accredited full-time courses from accredited institutions of higher learning, comprising universities, and mono/polytechnics are mobilised and posted to states other than their state of origin [2], where they are expected to

mix with people from different ethnic groups, social and family backgrounds, learn the culture of the indigenes in the location they are posted to, and serve the community and the nation [3, 4].

The NYSC scheme was created in 1973 after the Nigerian Civil War, in a bid to reconstruct, reconcile and rebuild the nation, to properly encourage and develop common ties among Nigerian youths and promoting national unity. The primary purpose of the scheme is to inculcate in Nigerian youths the spirit of

selfless service to the community, and emphasise oneness and brotherhood among all Nigerians, regardless of cultural or social background [5].

In previous years, after the orientation camp, serving corps members were required to seek medical care at public healthcare facilities, make out-of-pocket payments for their treatment, and subsequently apply to the NYSC for reimbursement of their medical expenses [6]. However, in 2022, the Federal Government introduced a health insurance programme for corps members, otherwise known as the Group, Individual and Family Social Health Insurance Programme-NYSC (GIFSHIP-n), under the National Health Insurance Authority (NHIA) to provide more structured and accessible healthcare coverage [7, 8], with the objectives of ensuring that every corps member has access to quality health care services and in the process prevent avoidable deaths, protect corps members from the financial burden of healthcare access, and reduce huge medical costs for both corps members and the NYSC.

The NHIA and NYSC oversee the programme, collaborating with Health Maintenance Organisations (HMOs) who manage the provision of health care services and ensure that corps members receive care through public and private health care facilities accredited by the authority across the nation. [8].

An average of 400,000 youths participate in the NYSC scheme annually in all the 36 states of the federation and the Federal Capital Territory [9, 10], with the recruitment conducted in three batches and running in such a way that ensures a continuous flow and steady presence of corps members throughout the year. All corps members nationwide are eligible for healthcare cover throughout the service year, starting from the pre-orientation period (from the day of collection of the call-up letter to reporting at the orientation camp), the orientation camp period (a three-week training programme), the post-orientation period (when

corps members serve at their places of primary assignment), and the terminal leave period (the three weeks following the official passing-out exercise) [4, 7, 8].

Healthcare utilisation is a crucial aspect of public health and policy decision-making, as it measures how people access and use healthcare services, providing valuable insights into the accessibility and effectiveness of available services, as well as information on the disease pattern within a population. Access to and utilisation of healthcare services are critical to the improvement of health outcomes and planning for health resource allocation within the healthcare system [11].

Currently, there is a dearth of research on health-related issues among corps members during the service year, and this study aims to address this gap by investigating these aspects. This study evaluated the utilisation of health services under the National Health Insurance programme among corps members in Rivers State, Nigeria.

The findings of this study will provide useful knowledge and give baseline information for reference and consultation purposes and also stimulate further studies to explore related themes across other regions in the nation.

Materials and Methods

Study Setting, Area and Population

This was a descriptive cross-sectional study conducted among corps members in Rivers State, Nigeria, between September and December 2024. Rivers State, created in 1967, is located in the Niger Delta, South-South region of Nigeria, with Port Harcourt city as its capital. The state is a major hub for Nigeria's oil and gas industry, with a population of about 7.5 million comprising diverse ethnic groups [12, 13].

Sample Size Determination

The minimum sample size was obtained using Cochran's statistical formula [14]:

$$N = Z^2pq/d^2$$

Where:

N = Minimum sample size

z = Standard normal deviation, usually set at 1.96

$p = 0.57$ (57%), 57% being the proportion of corps members who had a positive perception about the National Health Insurance Scheme in a previous study [15].

$q = 1 - p$

d = Degree of accuracy, usually set at 0.05

A minimum sample size of 415 was obtained, taking into account an attrition risk of 10%.

Sampling Technique, Research Instrument and Data Collection

Participants were selected by proportionate sampling using the healthcare facilities' utilisation records from the Managing Health Maintenance Organisation (HMO). Selected corps members were invited to participate in the study using the phone numbers available in the healthcare utilisation data. Data collection was done using pretested, self-administered, anonymous, structured online questionnaire (google forms), designed in such a way that a respondent can only fill it once.

Inclusion and Exclusion Criteria

Corps members who had accessed healthcare services at least once under the health insurance programme and were willing to participate in the study were included in the study, while those who declined consent were excluded.

Data Analysis and Management

Data analysis was done using IBM SPSS (International Business Machine Statistical Package for the Scientific Solution) Version 23 through which spreadsheet and frequency tables and cross tabulations were generated. Chi square test was used for Inferential statistics to test for association between variables. The Level of significance was predetermined at a p -value of less than 0.05.

Ethical Consideration

Ethical approval for the study was obtained from the University of Port Harcourt Teaching Hospital (UPTH) Ethical Committee before the commencement of the study. The NYSC Rivers State Secretariat was also notified, and an approval granted. Additionally, authorisation was obtained from the HMO to access the healthcare utilisation records. The respondents were informed of the purpose of the study, and participation was fully voluntary, confidential and anonymous.

Limitations

The study relied on self-reported information, which might be over- or under-reported due to recall bias among respondents. Also, the study was carried out in Rivers State, and findings may not be generalizable to the entire nation. Despite these limitations, the study provides valuable insights and data which will help in policy decisions, project corps members' healthcare needs, enhance resource allocation, and ultimately improve the effectiveness of the health insurance programme. Additionally, it provides useful knowledge and gives baseline information for reference and consultation purposes and will also stimulate further studies across the nation.

Results

The age distribution revealed that slightly over half of the respondents, 213 (51.3%), were aged between 24 and 26 years. Nearly two-fifths, 157 (37.8%), were in the 27 to 30 years age group, while 45 (10.8%) were between 21 and 23 years old. The mean age of the respondents was 25.9 ± 2.4 years. A total of 154 respondents (37.1%) were male, while the remaining 261 (62.9%), were female, with a male: female ratio of 1:1.7. The majority of the respondents, 390 (94.0%), were single, while a smaller percentage, 24 (5.8%) were married. Regarding the respondents' duration in service: a small percentage, 18 (4.3%) had been in service for less than 3 months, one-fifth, 83

(20.0%) for 3 to 6 months, 104 (25.1%) for 7 to 9 months, and the largest group, 210 (50.6%), had been in service for more than 9 months. [Table 1].

Table 1. Socio-Demographic Characteristics of Respondents

| Socio-demographics | Frequency (N=415) | Percentage (%) |
|--------------------------|-------------------|----------------|
| Age Group (years) | | |
| 21-23 | 45 | 10.8 |
| 24-26 | 213 | 41.3 |
| 27-30 | 157 | 37.8 |
| Gender | | |
| Male | 154 | 37.1 |
| Female | 261 | 62.9 |
| Marital Status | | |
| Single | 390 | 94.0 |
| Married | 24 | 5.8 |
| Others | 1 | 0.2 |
| Service Duration | | |
| < 3 months | 18 | 4.3 |
| 3 to 9 months | 83 | 20.0 |
| 7 to 9 months | 104 | 25.1 |
| > 9 months | 210 | 50.6 |

The respondents reported utilising various health services, with a large majority, 354 (85.3%), having used outpatient care. Many have also used laboratory/radiological investigations, with 318 respondents (76.6%) reporting this, while 63 (15.2%) sought ophthalmic (eye) care. Twenty-seven (6.5%) respondents reported they received emergency care, 39 (9.4%) had been admitted to the

hospital, while 35 respondents (8.4%) sought dental care. Fewer respondents reported undergoing surgery, 13 (3.1%) and physiotherapy, 10 (2.4%). Concerning female-specific care, 64 respondents (15.4% of the total sample and 24.5% of females) have accessed gynaecological care, while maternity services were used by 17 (4.1% /6.5%). [Table 2].

Table 2. Types of Services Utilised by Respondents

| Type of Services | Frequency (N= 415) | Percentage (%) |
|--|--------------------|----------------|
| Outpatient Care | 354 | 85.3 |
| Emergency Care | 27 | 6.5 |
| Hospital Admission | 39 | 9.4 |
| Laboratory/Radiological Investigations | 318 | 76.6 |
| Dental Care | 35 | 8.4 |
| Ophthalmic (Eye) care | 63 | 15.2 |
| Gynaecological Care | 64 | 15.4 |
| Maternity Services | 17 | 4.1 |
| Surgery | 13 | 3.1 |
| Physiotherapy | 10 | 2.4 |

*Multiple responses

The frequency of healthcare facility visits varied among respondents. The largest proportion, 168 (40.5%), reported visiting the facility twice, followed by 104 (25.1%) who visited once, 75 (18.1%) visited three times, and 68 (16.4%) visited four or more times. Regarding the types of healthcare services

utilised, most respondents, 185 (44.6%), used two different types of services; fair number, 98 (23.6%), used three types, while 87 (21.0%) needed only one service. A smaller portion accessed four services, 36 (8.7%), and a minimal proportion, 9 (2.2%), accessed five or more types of services. [Table 3].

Table 3. Services Utilisation by Respondents

| Variable | Frequency (N= 415) | Percentage (%) |
|---|--------------------|----------------|
| Number of Healthcare Facility Visits | | |
| Once | 104 | 25.1 |
| Twice | 168 | 40.5 |
| Thrice | 75 | 18.1 |
| ≥ Four times | 68 | 16.4 |
| Types of Health Services Utilised | | |
| 1 | 87 | 21.0 |
| 2 | 185 | 44.6 |
| 3 | 98 | 23.6 |
| 4 | 36 | 8.7 |
| ≥ 5 | 9 | 2.2 |

Table 4 evaluated the frequency of healthcare facility visits by vis-à-vis the respondents' socio-demographic characteristics. Those in 24-26 and 27-30 age groups had high frequency of visits, with 40.4% and 40.8% visiting twice, with no significant association observed between age and healthcare visit frequency (p-value = 0.052). Females visited healthcare facilities more frequently, with 41.0% visiting twice and 19.5% visiting four or more times. In comparison, 36.4% of males visited once and 11.0% visited four or more times; the difference was statistically significant (p < 0.001).

Single individuals had higher visit frequency; 39.1% visited twice, while 26.7% visited once. In contrast, 70.8% of married individuals visited twice, and 15.8% visited once. The difference was statistically significant (p = 0.02).

Those that had been in service for more than 9 months had a higher percentage of visits for four or more times (25.6%), while the highest proportion (55.6%) of those who had only visited once were those who had spent less than 3 months of service. Significant differences were observed based on service duration (p < 0.001).

Table 4. Frequency of Healthcare Facility Visits by Socio-Demographic Characteristics

| Socio-demographics | Once | Twice | Thrice | ≥ Four times | X ² | P-value |
|--------------------|--|------------|------------|--------------|----------------|-----------|
| | Number of Times Services were Utilised | | | | | |
| Age Group (years) | | | | | | |
| 21-23 | 13 (28.9%) | 18 (40.0%) | 4 (8.9%) | 10 (22.2%) | 12.501 | 0.052 |
| 24-26 | 58 (27.2%) | 86 (40.4%) | 31 (14.6%) | 38 (17.8%) | | |
| 27-30 | 33 (21.0%) | 64 (40.8%) | 40 (25.5%) | 20 (12.7%) | | |
| Gender | | | | | | |
| Male | 56 (36.4%) | 61 (39.6%) | 20 (13.0%) | 17 (11.0%) | 20.306 | * < 0.001 |

| | | | | | | |
|-------------------------|-------------|-------------|------------|------------|--------|----------|
| Female | 48 (18.4%) | 107 (41.0%) | 55 (12.1%) | 51 (19.5%) | | |
| Marital Status | | | | | | |
| Single | 103 (26.4%) | 151 (39.1%) | 75 (18.4%) | 61 (15.8%) | 21.173 | *0.021 |
| Married | 1 (4.2%) | 17 (70.8%) | 0 (0.0%) | 6 (25.0%) | | |
| Others | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 1(100%) | | |
| Service Duration | | | | | | |
| < 3 months | 10 (55.6%) | 5 (27.8%) | 3 (16.7%) | 0 (0.0%) | 78.279 | *< 0.001 |
| 3 to 6 months | 33 (39.8%) | 44 (53.0%) | 3 (3.6%) | 3 (3.6%) | | |
| 7 to 9 months | 30 (28.8%) | 29 (27.9%) | 34 (37.2%) | 11 (10.6%) | | |
| 7 to 9 months | 32 (15.2%) | 90 (42.7%) | 35 (16.6%) | 54(25.6%) | | |

Discussion

This study evaluated the utilisation of health services among corps members in Rivers State, Nigeria. The age range of the respondents was between 21 to 30 years, with a mean age of 25.9 ± 2.4 years. This finding is consistent with the results of studies conducted in similar populations (among corps members) in Kano, Northwest Nigeria, by Michael et al [15], with a mean age of 25.8 ± 2.3 years, and that of a multi-centre study by Emorinken et al [16], across Delta state in South-South, Abia state in South-East and Katsina State in North-West Nigeria with a mean age of 25.1 ± 2.7 years. This age group suggests that the youth corps members are in the early phases of their professional lives, and though this age group is perceived to be in good physical health by the general population, many of them face health-related challenges. Hence, it is important to initiate and implement health education programmes focused on healthy living and good health-seeking behaviour among them, to safeguard their wellbeing during and after the service year, towards ensuring a healthy workforce, a productive economy and a vibrant nation.

In this study, more females than males were attended to by the healthcare facilities. This is in contrast the findings with some other previous studies who reported more males [16-18]. The plausible explanation for this may be because this study was a cross-sectional, which

utilised a questionnaire for data collection, while the other studies were retrospective, relying on medical records from camp clinics.

The healthcare facility utilisation among the respondents was observed to vary in terms of both frequency of visits and the number of services accessed. The services accessed included: outpatient care, emergency care, hospital admission, laboratory/radiological investigations, ophthalmic care, dental care, surgery, physiotherapy, gynaecological care and maternity services.

A range of various types of services were utilised by the respondents, with outpatient care (85.3%), laboratory/radiological services (76.6%), and gynaecological services (15.4%) accounting for the most utilised services [19]. This is not surprising as outpatient care is a fundamental component of primary care, which is critical to a good healthcare system. Under the National Health Insurance programme, enrollees are typically required to visit primary healthcare providers (except in emergencies), where they are managed by primary care physicians and general practitioners before being referred to if there is a need. [20] Also, the importance of medical laboratory investigations and radiological imaging for making diagnoses cannot be overemphasised in evidence-based medical practice [21, 22]. In addition, many of the female corps members have sought various forms of gynaecological care, highlighting the importance of giving

women's reproductive health more priority and enhancing access to such services [23,24]. Ophthalmic (eye) care, including prescription of glasses and dental care, were also relatively common, suggesting that eye and dental conditions were prevalent among the corps members.

Those who had been in service for more than 9 months utilised health services more than their colleagues. The longer corps members stay in service, the more likely they are to experience health issues related to stress, exposure to new environments, have ongoing medical needs etc., or become more familiar with how to access healthcare services than the newly deployed members, which increases their chances of using the health insurance benefits [19].

Individuals should be encouraged to be proactive whenever they have health concerns as this can lead to early detection and treatment of health issues, potentially preventing conditions from worsening [25].

Conclusion

This study offers valuable insights into the utilisation of healthcare services under the National Health Insurance Programme among

corps members in Rivers State, Nigeria. The findings revealed that a broad range of healthcare services were accessed, with outpatient care, laboratory/radiological services, and gynaecological services being the most frequently accessed, underscoring the importance of primary healthcare, laboratory/radiological investigations in the diagnostic process, and the significance of addressing women's health needs among the youths. Additionally, it recommends further similar studies across the nation to compare patterns, inform policies, enhance resource allocation and strengthen healthcare delivery for corps members and the Nigerian population.

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Conflict of Interest

Authors declare no conflict of interest.

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