

**KNOWLEDGE, ATTITUDE AND PERCEPTION OF UNIVERSAL HEALTH
COVERAGE AMONG UNIVERSITY OF BENIN MEDICAL STUDENTS**

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**A RESEARCH WORK SUBMITTED TO THE DEPARTMENT OF COMMUNITY
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DECLARATION

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CERTIFICATION

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DEDICATION

This project is dedicated first to Almighty God, for His grace, wisdom, strength, and faithfulness throughout the course of this work.

To Our Families and Supporters:

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LIST OF ABBREVIATIONS

UHC	Universal Health Coverage
WHO	World Health Organization
NHIA	National Health Insurance Authority
NHIS	National Health Insurance Scheme
SPSS	Statistical Package for Social Sciences
MBBS	Bachelor of Medicine and Bachelor of Surgery
BDS	Bachelor of Dental Surgery
LMICs	Low- and Middle-Income Countries

DEFINITION OF TERMS

Universal Health Coverage (UHC): A health system goal that ensures all individuals and communities receive the health services they need, of sufficient quality, without suffering financial hardship in paying for those services.

Health Services: Preventive, promotive, curative, rehabilitative, and palliative health interventions provided to individuals or populations through the healthcare system.

Financial Risk Protection: Measures within a health system that prevent individuals or households from experiencing catastrophic or impoverishing health expenditure as a result of paying for healthcare services.

Out-of-Pocket Expenditure: Direct payments made by individuals to healthcare providers at the point of service use, which are not reimbursed by any form of health insurance.

Health Insurance: A financing mechanism that pools funds to cover part or all of the cost of healthcare services for enrolled individuals, thereby reducing direct payments at the point of care.

National Health Insurance Authority (NHIA): The Nigerian government agency established under the National Health Insurance Authority Act (2022) to regulate, promote, and supervise health insurance schemes in Nigeria.

Primary Healthcare: The first level of contact individuals, families, and communities have with the healthcare system, providing accessible, affordable, and essential health services.

Health Policy: Decisions, plans, and actions undertaken by governments or institutions to achieve specific healthcare goals within a society.

ABSTRACT

Background: Universal Health Coverage (UHC) aims to ensure that all individuals have access to needed health services of adequate quality without financial hardship. As future healthcare providers and health-system leaders, medical and dental students play an important role in advancing UHC through clinical practice, advocacy, and policy engagement.

Objectives: This study assessed the knowledge, attitudes, and perceptions of Universal Health Coverage among medical and dental students of the University of Benin, Nigeria, and examined associated socio-demographic factors.

Methods: A descriptive cross-sectional study was conducted among undergraduate medical and dental students using a structured, self-administered questionnaire. Data were analyzed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics were presented as frequencies and percentages, while associations were tested using the Chi-square test at a 5% level of significance.

Results: Most respondents demonstrated good knowledge of UHC (60.1%) and positive attitudes toward its principles (89.0%). However, perceptions revealed notable concerns regarding the financial sustainability of UHC and its potential impact on quality of care. Knowledge, attitudes, and perceptions were significantly more favorable among older students, those in higher academic levels, and those with formal exposure to health policy or UHC training ($p < 0.05$).

Conclusion: Medical and dental students at the University of Benin generally possess good knowledge and positive attitudes toward Universal Health Coverage, but their perceptions reflect realistic concerns about implementation challenges within Nigeria's health system. Strengthening early, structured, and policy-oriented UHC education during undergraduate training is essential to prepare future healthcare professionals to effectively contribute to achieving UHC in Nigeria.

Keywords: Universal Health Coverage; Knowledge; Attitude; Perception; Medical and Dental Students; Nigeria

CHAPTER ONE

INTRODUCTION

1.1 Background

Universal Health Coverage (UHC) is a fundamental goal in global health that aims to ensure that all individuals and communities have access to essential health services without facing financial hardship.¹ It simply means that all people have access to the health services they need, be it prevention, promotion, treatment, rehabilitation or palliative services, without any risk of financial hardship when paying for such services. As a foundation for and way towards achieving UHC, WHO recommends reorienting the health system to focus more on the primary health care (PHC) approach. The PHC is a more inclusive, equitable, cost-effective and efficient approach to enhancing the physical wellbeing, mental health and social well-being of people.

Achieving the UHC is one of the targets all the nations set when they adopted the 2030 sustainable development goal (SGDs) in 2015.² This is because UHC strives to promote equitable access to healthcare for all people, particularly in low- and middle-income countries, where health disparities are most pronounced.³ Countries worldwide are developing and deploying different policies and strategies to implement UHC. Despite these efforts, there is still a yet-to-be-settled debate about the best method to achieve it.⁴⁻⁶

In 2005, Nigeria launched the Health Insurance Authority (NHIA), also known as the National Health Insurance Scheme (NHIS), an agency of the Federal ministry of health (FMoH). The NHIS is a social health insurance program that covers the basic healthcare services of registered users by pooling the funds contributed by every user. The scheme regulates health insurance and also accredits Health Maintenance Organizations (HMOs).⁷ Since its launch as the main program

directed towards achieving UHC in Nigeria with the target to achieve at least 30 percent health insurance coverage by 2015, it has failed to cater for up to five percent of the country's population.⁸ The coverage of the National Health Insurance Scheme (NHIS) has remained low, with only about 5-10% of Nigerians enrolled. The informal sector, which constitutes over 70% of the workforce, is largely excluded.⁹ These unwelcome health consequences are a result of poor healthcare service delivery affecting the realization and actualization of Universal Health Coverage. Yet again in 2018, the Federal Ministry of Health (FMOH), in partnership with the WHO launched the Nigeria Health Workforce Registry (NHWR) under the Global Strategy for Human Resources for Health: Workforce 2030, in a bid to attain UHC through equitable access to health workers.⁵ This project has since been decentralized to handpick 11 out of the 36 states in Nigeria, which represents 28 percent of the country's population. The project is still in the pilot stage and has yet to make any notable contribution, but it appears to have great potential, but only time will tell.¹⁰

Although some states and some organized private sectors are buying into health insurance, the NHIS provides health insurance covers for employees of the federal government. HMOs act as purchasers under the NHIS and pay providers by a mix of capitation and fee-for-service; there is also a 10% coinsurance. Public sector health facilities are not-for-profit, thus the cost to the user of their services is usually less than those of the private sector, but those services are generally perceived to be of poor quality.¹¹

The University of Benin (UNIBEN), a well-known leading institution in medical education in Nigeria, plays a significant role in preparing future doctors who are directly involved in the country's healthcare system and this will impact in no small measure the UHC. Moreover, for a healthcare system to achieve UHC, it requires not only robust policy frameworks but also active

participation from healthcare providers, especially the next generation of medical professionals. There is no doubt, therefore, that medical students will play a vital role in promoting UHC not only through direct contribution to healthcare delivery but also through advocacy. As such, there is a need to assess their knowledge of UHC. Hence, this study aimed at assessing the knowledge of the University of Benin medical students about the basic structure of health-care coverage and UHC policies and also record their attitudes and perceptions.

1.2 Statement of the Problem

In Nigeria, access to affordable and quality healthcare remains a major challenge, especially in suburban areas where income levels are low and out-of-pocket expenses dominate healthcare financing.¹² Although there are ongoing reforms and initiatives in Nigeria to achieve UHC, substantial challenges such as inadequate resources, workforce shortages, and inequitable access to healthcare persist, and high rates of maternal and under-five mortality indicate a disconnect between policy intentions and actual health service delivery.¹⁰ Also introduced at sub-national levels are Community-Based Health Insurance Schemes (CBHIS), which aim to bridge this gap, providing a sustainable and equitable mechanism for healthcare access. The uptake of these schemes remains low. This may partly be due to limited knowledge, uninformed perceptions and attitudes by all including medical students, who are potential healthcare providers.

While medical students represent the future of the healthcare workforce, limited research has been conducted on their awareness, perceptions, and readiness to contribute to UHC implementation. This gap in knowledge poses a challenge to ensuring that future healthcare providers are adequately prepared to address UHC-related issues and promote equitable healthcare delivery.

1.3 Research Objectives

- ❖ To assess the knowledge of University of Benin Medical students on Universal health coverage
- ❖ To assess the attitude of University of Benin Medical students on Universal health coverage
- ❖ To assess the perception of University of Benin Medical students on Universal health coverage
- ❖ To relate the student's socio-demographic variables to knowledge, attitude, and perception

1.4 Research Questions

- ❖ What is the level of knowledge regarding Universal Health Coverage among medical students at the University of Benin?
- ❖ What are the prevailing attitudes of medical students towards the principles and implementation of Universal Health Coverage?
- ❖ How do medical students perceive Universal Health Coverage, and how does this shape their willingness to contribute to its goals?
- ❖ Will socio-demographic variables of the University of Benin Medical students influence their knowledge, attitude and perception towards the UHC?

1.5 Significance of the Study

This study will contribute to the existing body of knowledge on UHC by focusing on future healthcare providers, whose attitudes and practices will significantly influence the future

health system. It will also help in policy formulation by providing insights into how future doctors can be better aligned with national health goals.

1.6 Scope of the Study

This study will focus on medical students enrolled at the University of Benin, Nigeria. Participants will include students at both preclinical and clinical levels, providing a comprehensive understanding of how knowledge, attitudes, and perceptions of UHC evolve throughout medical training. The research will specifically examine their awareness, beliefs, and perceptions of UHC and how these factors influence their readiness to promote equitable healthcare. While the study is limited to UNIBEN students, its findings may offer insights applicable to other medical institutions in Nigeria.

CHAPTER TWO

LITERATURE REVIEW

2.1 Preamble

This chapter provides a detailed review of existing literature on the relationship between medical students, health workers and artisan knowledge, attitudes, and perceptions of Universal Health Coverage (UHC) in Nigeria, Africa and Europe. It identifies the gaps in current research, explores the key factors affecting the implementation of UHC, and evaluates the role medical students' play in supporting UHC. This review highlights areas where more information is needed and suggests ways to fill these gaps. It focuses on the differences in UHC between urban and rural Nigeria and other African countries. The goal is to offer insights that can guide future policies and education reforms aimed at improving the healthcare system and ensuring fair healthcare access.

2.2: Definition, Principles, and Components of UHC

Universal Health Coverage (UHC) means that all individuals and communities have access to the health services they need without facing financial hardship.¹ The key principles of UHC include:

- Equity: Providing healthcare services based on need, not income.
- Quality: Ensuring healthcare services are effective, safe, and centered on people's needs.
- Financial Protection: Preventing individuals from facing financial hardship due to health expenses.

The core components of UHC include:

- Service Coverage: A wide range of essential health services.
- Population Coverage: Ensuring every person is included in the system.
- Financial Coverage: Protecting individuals from excessive costs.

2.3: Healthcare Financing

Healthcare financing is about how money is raised, managed, and spent to provide health services.⁴

In Nigeria, the primary sources of healthcare funding are:

- Government Funding: Money from the federal and state governments.
- Private Expenditure: Money paid directly by individuals for healthcare services.
- Health Insurance: Contributions to schemes like the National Health Insurance Scheme (NHIS).

Nigeria faces challenges in healthcare financing, such as insufficient government funding, heavy reliance on out-of-pocket payments, and limited coverage of the informal sector.¹³

2.4: Healthcare Delivery at Different Centers

Healthcare services in Nigeria are delivered at different levels:

- Primary Healthcare Centers (PHCs): These centers provide basic health services, such as preventive care and treatment for common illnesses.

- **Secondary Healthcare Facilities:** These facilities offer specialized services and are usually located in urban areas.
- **Tertiary Healthcare Institutions:** These are advanced medical centers that provide specialized care and serve as referral hospitals.

There are differences in healthcare access between urban and rural areas, with rural regions facing issues like limited facilities and fewer healthcare workers.¹¹

2.5: Policy and Regulation

The Nigerian government has introduced several policies aimed at achieving UHC, including:

- ✓ **National Health Insurance Scheme (NHIS):** Created to protect people from high medical costs.⁹
- ✓ **Basic Health Care Provision Fund (BHCPF):** Focuses on improving primary healthcare services.⁷

Regulatory bodies ensure that healthcare services meet necessary standards and that UHC policies are implemented effectively.

2.6: Theoretical Framework of the Study

This study uses two important theories to explain how knowledge, attitudes, and perceptions influence behaviours:

1. **Health Belief Model (HBM):** This model suggests that people's actions are influenced by their views on health risks, the benefits of taking health-related actions, and the barriers to doing so.

Concerning UHC, medical students' beliefs about the benefits of equal healthcare and the risks of inadequate healthcare systems will affect their support for UHC initiatives.¹⁷

2. Theory of Planned Behavior (TPB): This theory explains that behaviour is shaped by three factors: attitude toward the behaviour, social influences (subjective norms), and perceived control over the behaviour (how easy or difficult it is to perform). In this study, medical students' intention to support UHC is influenced by their attitude toward UHC, the norms in their environment, and their confidence in making changes to the healthcare system.¹⁸

These theories help explain how knowledge and attitudes about UHC influence medical students' willingness to get involved and advocate for UHC.

2.7: Conceptual Framework of the Study

This study is based on three main variables: knowledge, attitudes, and perceptions. These factors impact how medical students engage with UHC and shape their readiness to help implement it.

1. Knowledge of UHC: This refers to medical students' understanding of the basic concepts of UHC, such as its goals, funding systems, policies, and the roles of various stakeholders. It includes both what they learn in school and what they gain through real-world exposure.^{14,16}

2. Attitudes toward UHC: Attitudes reflect students' opinions about UHC. Positive attitudes can motivate students to advocate for better healthcare, while negative attitudes (due to concerns like system inefficiencies or lack of resources) may prevent them from supporting UHC initiatives.^{19,20}

3. Perceptions of UHC: Perceptions are shaped by students' personal beliefs, experiences, and observations of the healthcare system. These perceptions help students form an opinion on

the feasibility of UHC, based on their understanding of the challenges (like government commitment and healthcare financing) and opportunities in the healthcare sector.²¹

The interaction of these three variables is the central focus of this study, as it examines how knowledge, attitudes, and perceptions work together to influence medical students' involvement in UHC.

2.8: Review of Previous Studies on Knowledge, Attitudes, and Perceptions of UHC

In a study on medical Students' Knowledge and Attitudes towards Universal Access to Healthcare (UHC) Systems in Dublin, Ireland, authors reported a fair understanding of UHC policies, but a negative attitude towards UHC as some students specifically mentioned a lack of faith in government, whilst others were uncertain with the system.¹⁹

In a study on the knowledge, attitude and perception of UHC among Healthcare Workers in Nigeria, reported a fair understanding of UHC policies, a positive attitude towards UHC, and acknowledging its potential benefits and concluded that workers identified challenges such as limited resources and infrastructure that could hinder UHC implementation.¹⁶

In an African study carried out in Ethiopia about Health Professionals focused on their knowledge and attitudes toward social health insurance, a key part of UHC. The findings indicated that their knowledge was limited about social health insurance. Many had a negative attitude toward social health insurance, questioning its effectiveness and as regards perception, health professionals saw the potential benefits of social health insurance, but they were skeptical about its practical implementation. The authors suggest the need for better training and awareness to improve the understanding and acceptance of social health insurance.²⁰

In a study on Knowledge and attitudes of informal workers in Jos-Jarawa Council ward of Plateau State, towards the National Health Insurance Scheme, authors reported that the knowledge of health insurance among artisans in the study area is low, and attitudes held towards the scheme are poor. The study recommends improved health insurance literacy designs and implementations.²¹

2.9 Barriers to UHC Awareness and Implementation

Several barriers to UHC awareness and implementation exist, especially among medical students:

- Curriculum Gaps: Medical education in Nigeria often does not cover UHC, health financing, and health policy adequately.
- Limited Practical Exposure: Students do not have enough real-world experience in health policy or systems during their clinical training.
- Negative Perceptions of Public Healthcare: Many students associate UHC with poor-quality public healthcare services, which discourage them from working in the public sector.
- Healthcare Migration: The migration of trained healthcare professionals to other countries worsens the shortage of skilled workers needed for UHC implementation.

CHAPTER THREE

METHODOLOGY

3.1 Study Area/Population

The study was conducted at the University of Benin, Nigeria. The university is one of Nigeria's premier institutions, with a well-established medical faculty that trains future healthcare professionals. The study focuses on medical students across different academic years to assess their knowledge, attitude, and perception of Universal Health Coverage (UHC).

3.2 Study Design

A descriptive cross-sectional study design was used. This design is appropriate for assessing the knowledge, attitudes, and perceptions of UHC among medical students at a single point in time.

3.3 Selection Criteria

Inclusion Criteria:

- Medical students that have matriculated at the University of Benin.
- Students who signed the informed consent to participate in the study. [Appendix 1]

Exclusion Criteria:

- Non-medical students.
- Medical students who decline to participate.
- Students who are absent during the study period.

3.4 Sample Size Determination

The sample size for the participants was determined using the Cochran formula:

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

Where: n minimum sample size of respondents

p = proportion of respondents with the characteristic of interest ;(P was got from a similar previous study by Iornumbe & Akosu (2021) {16%}

q = 1.0 - p z = standard normal deviate corresponding to confidence level; at 95% confidence level, z equals 1.96

d = error margin which equals 5% to make adjustments for a population of healthcare workers less than 10,000,

Calculate sample size step by step n

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

$$N = \frac{1.96^2 \times 0.16 \times 1.0 - 0.16}{0.05^2}$$

$$0.05^2$$

$$N = \frac{3.8416 \times 0.16 \times 0.84}{0.0025}$$

$$0.0025$$

$$N = 206.52$$

A 10 % attrition was added

$$N = 206 + 20 = 226$$

An approximate sample size of 228 was used

3.5 Sampling Technique

A proportionate stratified random sampling technique was used to select participants. Stratification by academic level (100-600 level) to ensure adequate representation of students across levels. Within each level, respondents were allocated between Medicine and Dentistry based on proportional allocation.

Updated class lists for each level and programme (e.g., Medicine 100L, Dentistry 100L, etc.) was obtained and used as the sampling frame.

The total required sample size is $n = 228$. The total population is $N = 1,484$, comprising Medical students (1,346) and Dental students (138).

Formula for proportional allocation by level

For each academic level i :

$$n_i = (N_i / N) \times n$$

Where n_i is the sample allocated to level i ; N_i is the total number of students in level i ; N is the total population across all levels; and n is the required total sample size.

Formula for proportional allocation by programme within each level

Within each level i , the sample will be split between Medicine and Dentistry as:

$$n_{(med,i)} = (N_{(med,i)} / N_i) \times n_i$$

$$n_{\text{dent},i} = (N_{\text{dent},i} / N_i) \times n_i$$

Table 3.1: Population distribution by level and programme

Level	Medical (N)	Dental (N)	Total (N _i)
100L	220	25	245
200L	184	21	205
300L	155	23	178
400L	345	24	369
500L	132	22	154
600L	310	23	333
Total	1346	138	1484

Table 3.2: Proportional allocation of sample size (n = 228)

Level	Total students (N _i)	Sample allocated (n _i)	Medical selected (n _(med))	Dental selected (n _(dent))
100L	245	38	34	4
200L	205	31	28	3
300L	178	27	24	3
400L	369	57	53	4
500L	154	24	21	3
600L	333	51	47	4
Total	1484	228	207	21

Selection of Participants

Within each level and programme subgroup, respondents were selected using simple random sampling by balloting. Each eligible student was assigned a unique identification number based on the class list. The numbers was written on slips of paper of equal size, folded identically, mixed thoroughly, and the required number of slips was drawn without replacement until the allocated sample for that subgroup is obtained (e.g., Medicine 100L = 34; Dentistry 100L = 4). Selected students will be approached and recruited after obtaining informed consent.

Where a selected respondent declines participation or is unavailable, replacement will be done by drawing another slip from the remaining pool within the same subgroup (same level and programme) until the required sample size is achieved.

3.6 Duration

The study was conducted over a period of three months, covering data collection, pre-testing, and analysis.

3.7 Data Collection

A structured, self-administered questionnaire was used for data collection. (Appendix II) The questionnaire will consist of four sections:

- Socio demographics,
- Knowledge of UHC
- Attitudes towards UHC
- Practice regarding UHC

3.8 Pre-Testing

The questionnaire was pre-tested on a small sample (10% of the sample size) of nursing students from a different institution to ensure clarity, reliability, and validity. Necessary modifications were made based on feedback.

3.9 Scoring of Study Variables

Knowledge Score

Knowledge of Universal Health Coverage (UHC) was assessed using 10 multiple-choice questions (K1–K10). Each correct response was scored 1 point, while each incorrect response was scored 0 point. The total knowledge score therefore ranged from 0 to 10. Knowledge scores were converted to percentage and categorised using a 70% cut-off. Respondents with scores $\geq 70\%$ ($\geq 7/10$) were classified as having good knowledge, while those with scores $< 70\%$ (0–6/10) were classified as having poor knowledge.

Attitude Score

Attitude towards UHC was assessed using 12 items on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Negatively worded items were reverse-coded prior to scoring so that higher scores consistently reflected a more positive attitude. The total attitude score ranged from 12 to 60. Scores were converted to percentage and categorised using a 70% cut-off. Respondents with attitude scores $\geq 70\%$ ($\geq 42/60$) were classified as having a positive attitude, while those with scores $< 70\%$ (12–41/60) were classified as having a negative attitude.

Practice Score

Practice relating to UHC was assessed using 12 items on a 5-point frequency scale (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always). The total practice score ranged from 12 to 60, with higher scores indicating better UHC-related practice. Scores were converted to percentage and categorised using a 70% cut-off. Respondents with practice scores $\geq 70\%$ ($\geq 42/60$) were classified as having good practice, while those with scores $< 70\%$ (12–41/60) were classified as having poor practice.

3.11 Data Analysis

Data were analysed using Statistical Package for the Social Sciences (SPSS) version 25.0. Descriptive statistics (frequencies, percentages, and means) was used to summarize data. Chisquare tests was used to assess associations between categorical variables. The p value was set at 0.05.

3.12S Ethical Consideration

Ethical approval was obtained from the University of Benin Teaching Hospital's Research Ethics Committee. Informed consent was sought from all participants, ensuring confidentiality and voluntary participation. No personal identifiers was collected.

CHAPTER FOUR

RESULT

A total of two hundred and twenty eight Medical and Dental students of the University of Benin, Benin City, Edo State, and with a mean age ($\pm$ SD) = 21.75 ($\pm$ 3.89) participated in this study which has a 100% response rate.

Table 4 shows the Sociodemographics characteristics of the respondents. Most respondents were male 147 (64.5%), while 81 (35.5%) were female. Regarding age group, a total of 103 (45.2%) were aged 21–25 years, 98 (43.0%) were aged 16–20 years, 23 (10.1%) were aged 26–30 years, and 4 (1.8%) were older than 30 years. Ethnic distribution showed that the largest group was Bini 71 (31.1%), followed by Esan 53 (23.2%), Igbo 45 (19.7%), Etsako 28 (12.3%), Yoruba 24 (10.5%), Hausa 4 (1.8%), and other ethnic groups such as Efik and Idoma 3 (1.3%). Christianity was the predominant religion 210 (92.1%), followed by Islam 15 (6.6%), while 3 (1.3%) reported other religions such as traditional worship or none. Most respondents were single 220 (96.5%), while 6 (2.6%) were married and 2 (0.9%) were divorced or separated. The majority were medical students 207 (90.8%), while 21 (9.2%) were dental students. By class, over half were Medical Clinical students 121 (53.1%), followed by Medical Preclinical 86 (37.7%), with smaller proportions in Dental Clinical 11 (4.8%) and Dental Preclinical 10 (4.4%) participated in the study. Respondents were distributed across levels, with 57 (25.0%) in 400 level, 51 (22.4%) in 600 level, 38 (16.7%) in 100 level, 31 (13.6%) in 200 level, 27 (11.8%) in 300 level, and 24 (10.5%) in 500 level. Only 16 (7.0%) had a prior first degree, while 212 (93.0%) did not. In addition, 61 (26.8%) reported having taken a formal course on health policy/UHC, whereas 167 (73.2%) had not.

Table 4: Socio-Demographic Characteristics of Respondents

Variable	Frequency (n=228)	Percent (%)
Age Group		
16–20	98	43.0
21–25	103	45.2
26–30	23	10.1
>30	4	1.8
Gender		
Male	147	64.5
Female	81	35.5
Ethnic Group		
Bini	71	31.1
Esan	53	23.2
Igbo	45	19.7
Etsako	28	12.3
Yoruba	24	10.5
Hausa	4	1.8
Others*	3	1.3
Religion		
Christian	210	92.1
Muslim	15	6.6
Others	3	1.3
Marital Status		
Single	220	96.5
Married	6	2.6
Divorced/Separated	2	0.9
Programme		
Medical	207	90.8
Dental	21	9.2
Class		
Medical Clinical	121	53.1
Medical Preclinical	86	37.7
Dental Clinical	11	4.8
Dental Preclinical	10	4.4
Level		
400L	57	25.0
600L	51	22.4
100L	38	16.7
200L	31	13.6
300L	27	11.8
500L	24	10.5
First Degree		
No	212	93.0
Yes	16	7.0
Formal course on Health Policy/UHC		
No	167	73.2
Yes	61	26.8

Table 5.0 shows the knowledge of UH among the respondents among the participants. As regard the primary goal of Universal Health Coverage (UHC), most respondents correctly identified ensuring access to needed services without financial hardship 155 (68.0%). Smaller proportions selected providing only emergency care for free 25 (11.0%) and expanding private health insurance 25 (11.0%), while 23 (10.1%) indicated reducing hospital overcrowding.

Regarding the components of the UHC framework, the majority selected all of the options 157 (68.9%), while 26 (11.4%) identified health service quality alone, 24 (10.5%) selected access to essential health services, and 21 (9.2%) selected financial protection. On services not included in essential health services based on WHO standards, most respondents correctly chose cosmetic dermatology 161 (70.6%), whereas 30 (13.2%) selected routine immunisations, 21 (9.2%) antenatal and postnatal care, and 16 (7.0%) screening for hypertension and diabetes.

Concerning the SDG 3.8.1 indicator for monitoring UHC service coverage, most respondents identified the UHC Service Coverage Index 162 (71.1%), while 27 (11.8%) selected GDP per capita, 21 (9.2%) life expectancy, and 18 (7.9%) Service Availability and Readiness Score (SARA). In addition, most respondents correctly indicated that the statement “UHC means that all health services must be free at the point of use” is false 165 (72.4%), while 24 (10.5%) were not sure, 20 (8.8%) did not know, and 19 (8.3%) believed it was true.

When asked about a non-component of the UHC framework, most respondents selected health service quality 165 (72.4%), while 31 (13.6%) chose access to essential health services, 17 (7.5%) financial protection, and 15 (6.6%) luxury health services. Similarly, for the dimension not included in the WHO UHC Cube, the majority chose hospital bed capacity 153 (67.1%), while 32 (14.0%) selected financial protection, 22 (9.6%) service coverage, and 21 (9.2%) population coverage.

On the item not considered a barrier to achieving UHC in low-resource settings, most respondents selected community-based health insurance scheme 163 (71.5%), while 25 (11.0%) identified excessive out-of-pocket expenditure, 23 (10.1%) inadequate infrastructure, and 17 (7.5%) lack of health workforce. Regarding the most equitable financing mechanism for UHC, most respondents selected general taxation or national health insurance 154 (67.5%), while 29 (12.7%) chose out-of-pocket payments, 28 (12.3%) voluntary private insurance schemes, and 17 (7.5%) direct donations from patients.

For the key components of UHC, the majority selected all of the options 161 (70.6%), while 32 (14.0%) selected health promotion, 20 (8.8%) disease prevention, and 15 (6.6%) medical treatment. Awareness of Nigeria's UHC policy was relatively high, as 167 (73.2%) reported being aware, while 37 (16.2%) were not aware and 24 (10.5%) were uncertain.

Figure 1 shows the overall knowledge of participants. Report shows that 137 (60.1%) had good knowledge of UHC, whereas 91 (39.9%) demonstrated poor knowledge.

Table 5.0: Knowledge of Universal Health Coverage (UHC) Among Respondents

Variable / Category	Frequency (n=228)	Percent (%)
Primary goal of Universal Health Coverage (UHC)		
Ensuring access to needed services without financial hardship	155	68.0
Providing only emergency care for free	25	11.0
Expanding private health insurance	25	11.0
Reducing hospital overcrowding	23	10.1
Components of the UHC framework		
All of the options	157	68.9
Health service quality	26	11.4
Access to essential health services	24	10.5
Financial protection	21	9.2
Services not included in essential health services (WHO standard)		
Cosmetic dermatology	161	70.6
Routine immunisations	30	13.2
Antenatal and postnatal care	21	9.2
Screening for hypertension and diabetes	16	7.0
SDG 3.8.1 indicator for monitoring UHC service coverage		
UHC Service Coverage Index	162	71.1
GDP per capita	27	11.8
Life expectancy	21	9.2
Service Availability and Readiness Score (SARA)	18	7.9
UHC means that all health services must be free at the point of use.		
False	165	72.4
Not sure	24	10.5
Don't know	20	8.8
True	19	8.3
Non-component of the UHC framework		
Health service quality	165	72.4
Access to essential health services	31	13.6
Financial protection	17	7.5
Luxury health services	15	6.6
Dimension not included in the WHO UHC Cube		
Hospital bed capacity	153	67.1
Financial protection	32	14.0
Service coverage	22	9.6
Population coverage	21	9.2
Item not considered a barrier to achieving UHC in low-resource settings		
Community-based health insurance scheme	163	71.5
Excessive out-of-pocket expenditure	25	11.0
Inadequate infrastructure	23	10.1
Lack of health workforce	17	7.5
Most equitable financing mechanism for UHC		
General taxation or national health insurance	154	67.5
Out-of-pocket payments	29	12.7
Voluntary private insurance schemes	28	12.3
Direct donations from patients	17	7.5
Key components of UHC		

All of the options	161	70.6
Health promotion	32	14.0
Disease prevention	20	8.8
Medical treatment	15	6.6
Awareness of Nigeria's UHC policy		
Yes	167	73.2
No	37	16.2
Uncertain	24	10.5

Figure 1: Overall knowledge level (UHC

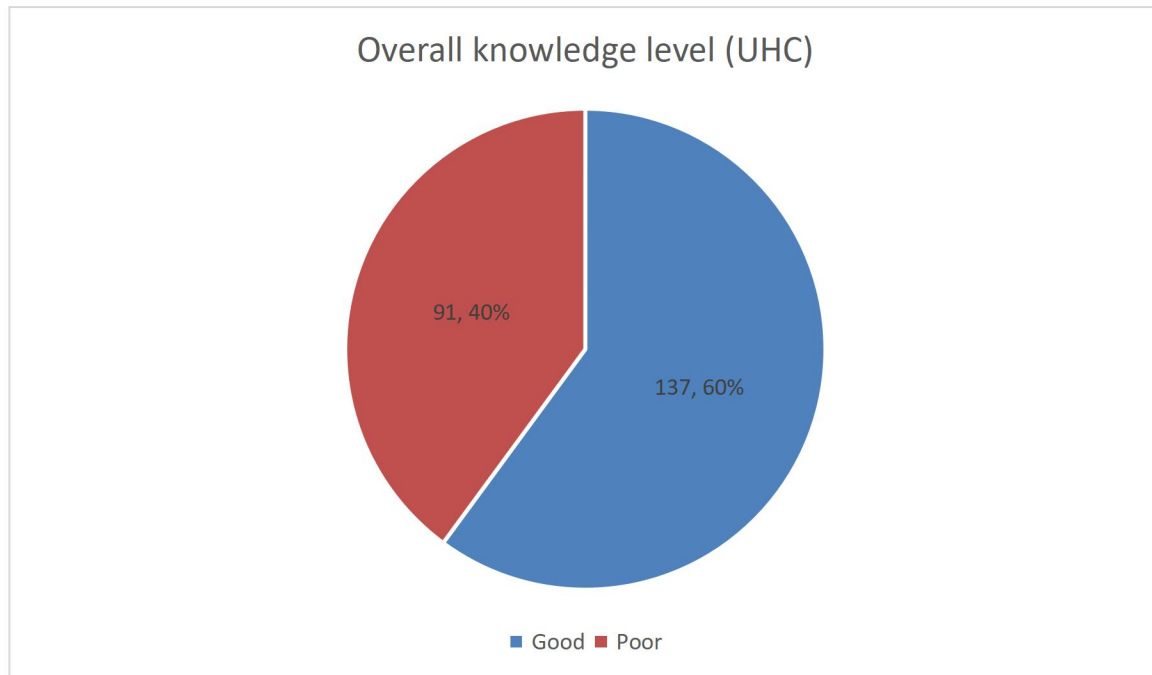


Table 6 shows the attitudes of the respondents towards universal health coverage. Respondents generally demonstrated positive attitudes towards Universal Health Coverage (UHC). For the statement that access to healthcare should be regarded as a fundamental human right, less than half of the respondents agreed 96 (42.1%) or strongly agreed 74 (32.5%), while 48 (21.1%) were neutral and only 10 (4.4%) disagreed, with none strongly disagreeing 0 (0.0%). Similarly, 84 (36.8%) agreed or strongly agreed 81 (35.5%) that equitable access to healthcare is more important than preserving the current market-based system, while 58 (25.4%) were neutral and 5 (2.2%) disagreed, with none strongly disagreeing 0 (0.0%).

On the view that all citizens should receive healthcare regardless of ability to pay, 88 (38.6%) agreed or strongly agreed 81 (35.5%), while 49 (21.5%) were neutral; few disagreed 9 (3.9%) or strongly disagreed 1 (0.4%). With respect to personal responsibility to advocate for UHC as a medical student, 86 (37.7%) agreed or strongly agreed 73 (32.0%), while 56 (24.6%) were neutral, and smaller proportions disagreed 12 (5.3%) or strongly disagreed 1 (0.4%). Likewise, 85 (37.3%) agreed or strongly agreed 98 (43.0%) that their future role as doctors includes contributing to efforts to achieve UHC, while 36 (15.8%) were neutral and 9 (3.9%) disagreed, with none strongly disagreeing 0 (0.0%).

Willingness to work in underserved or rural areas to improve access to healthcare was also low, as 80 (35.1%) respondents agreed or strongly agreed 87 (38.2%), while 51 (22.4%) were neutral; only 9 (3.9%) disagreed and 1 (0.4%) strongly disagreed. Regarding concerns about the potential financial implications of UHC, responses were more mixed. For the statement that UHC may place excessive financial strain on the healthcare system, 81 (35.5%) agreed and 25 (11.0%) strongly agreed, while 91 (39.9%) were neutral; fewer disagreed 30 (13.2%) or strongly disagreed 1 (0.4%). Similarly, for the worry that UHC could reduce quality of care by

overburdening healthcare providers, 73 (32.0%) agreed and 35 (15.4%) strongly agreed, while 81 (35.5%) were neutral; however, 34 (14.9%) disagreed and 5 (2.2%) strongly disagreed.

On the belief that sustainable UHC requires increased investment in primary healthcare services, 91 (39.9%) agreed or strongly agreed 80 (35.1%), while 49 (21.5%) were neutral; only 7 (3.1%) disagreed and 1 (0.4%) strongly disagreed. Support for policies and leaders who prioritize implementation of UHC was also high, with 90 (39.5%) agreeing and 82 (36.0%) strongly agreeing, while 48 (21.1%) were neutral and 8 (3.5%) disagreed, with none strongly disagreeing 0 (0.0%). Interest in learning more about UHC and health systems strengthening showed a similar pattern, as 84 (36.8%) respondents agreed or strongly agreed 83 (36.4%), while 49 (21.5%) were neutral; 12 (5.3%) disagreed and none strongly disagreed 0 (0.0%).

Finally, close to half of the respondents agreed 107 (46.9%) that medical students should be actively involved in public health advocacy, including promotion of UHC, while 47 (20.6%) were neutral; only 6 (2.6%) disagreed and 1 (0.4%) strongly disagreed.

Figure 2 shows the overall attitude towards UHC was largely positive among respondents, as 203 (89.0%) demonstrated a positive attitude, while only 25 (11.0%) had a negative attitude.

*

Table 6.0 Attitude Towards Universal Health Coverage

Variable	SD Freq (%)	D Freq (%)	N Freq (%)	A Freq (%)	SA Freq (%)
Access to healthcare should be regarded as a fundamental human right	0 (0.0)	10 (4.4)	48 (21.1)	96 (42.1)	74 (32.5)
Equitable access to healthcare is more important than preserving the current market-based system	0 (0.0)	5 (2.2)	58 (25.4)	84 (36.8)	81 (35.5)
All citizens should receive healthcare regardless of ability to pay	1 (0.4)	9 (3.9)	49 (21.5)	88 (38.6)	81 (35.5)
Personal responsibility to advocate for UHC as a medical student	1 (0.4)	12 (5.3)	56 (24.6)	86 (37.7)	73 (32.0)
Future role as a doctor includes contributing to efforts to achieve UHC	0 (0.0)	9 (3.9)	36 (15.8)	85 (37.3)	98 (43.0)
Willingness to work in underserved or rural areas to improve access to healthcare	1 (0.4)	9 (3.9)	51 (22.4)	80 (35.1)	87 (38.2)
Concern that UHC may place excessive financial strain on the healthcare system	1 (0.4)	30 (13.2)	91 (39.9)	81 (35.5)	25 (11.0)
Worry that UHC could reduce quality of care by overburdening healthcare providers	5 (2.2)	34 (14.9)	81 (35.5)	73 (32.0)	35 (15.4)
Belief that sustainable UHC requires increased investment in primary healthcare services	1 (0.4)	7 (3.1)	49 (21.5)	91 (39.9)	80 (35.1)
Support for policies and leaders who prioritize implementation of UHC	0 (0.0)	8 (3.5)	48 (21.1)	90 (39.5)	82 (36.0)
Interest in learning more about UHC and health systems strengthening	0 (0.0)	12 (5.3)	49 (21.5)	84 (36.8)	83 (36.4)
Medical students should be actively involved in public health advocacy, including promotion of UHC	1 (0.4)	6 (2.6)	47 (20.6)	107 (46.9)	67 (29.4)

SA= Strongly Agree, A= Agree, N= Neutral, D=Disagree, SD= Strongly Disagree

Figure 2: **Overall attitude level towards UHC**

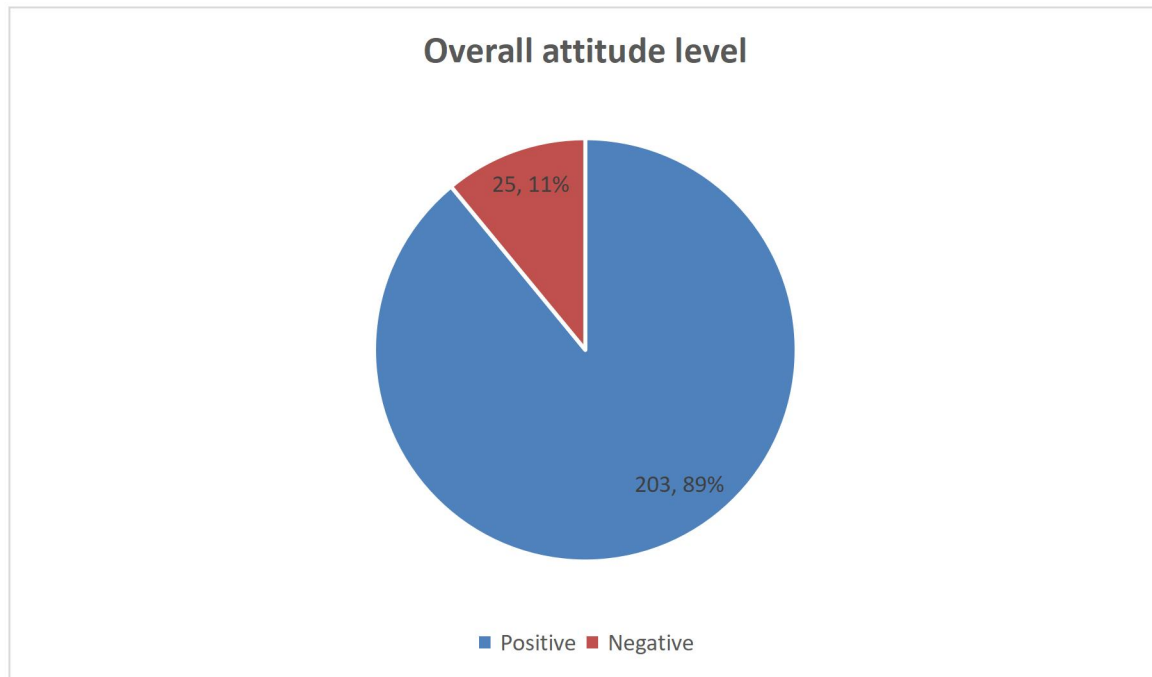


Table 7 shows the practices of universal health coverage among the study participants. Practices related to UHC were reported at varying levels across the different domains assessed. For attendance at lectures, workshops, or seminars addressing UHC principles, 84 (36.8%) respondents reported sometimes 81 (35.5%), followed by often 51 (22.4%) and rarely 42 (18.4%), while 36 (15.8%) reported always and 18 (7.9%) reported never. Similarly, engagement in academic discussions on UHC-related topics, 89 (39.0%), reported sometimes, followed by often 58 (25.4%) and rarely 41 (18.0%), while equal proportions reported never 20 (8.8%) and always 20 (8.8%).

Completion of coursework or research projects focused on UHC or health policy was reported as sometimes by 74 (32.5%), followed by often 61 (26.8%) and rarely 43 (18.9%), while 32 (14.0%) reported always and 18 (7.9%) reported never. With respect to reflecting on issues of access and affordability when interacting with patients, 78 (34.2%) respondents reported sometimes, followed by often 65 (28.5%) and rarely 47 (20.6%), while 24 (10.5%) reported always and 14 (6.1%) reported never.

Inquiring about patients' socioeconomic background regarding access and equity, 77 (33.8%), reported sometimes, followed by rarely 60 (26.3%) and often 48 (21.1%), while 24 (10.5%) reported always and 19 (8.3%) reported never. Participation in community-based health activities for vulnerable or underserved populations also showed a similar pattern, with 74 (32.5%) of the respondents reporting sometimes, followed by often 64 (28.1%) and rarely 43 (18.9%), while 29 (12.7%) reported always and 18 (7.9%) reported never.

Participation in student organisations that support UHC or health equity, 79 (34.6%) reported sometimes, followed by often 59 (25.9%) and rarely 47 (20.6%), while 29 (12.7%) reported always and 14 (6.1%) reported never. Likewise, engagement in campaigns or events promoting

health access or UHC reported as sometimes by 88 (38.6%) of the participants, followed by often 56 (24.6%) and rarely 40 (17.5%), while 23 (10.1%) reported never and 21 (9.2%) reported always.

Use of platforms such as social media to raise awareness about UHC or healthcare inequalities was reported as sometimes by 85 (37.3%), followed by often 50 (21.9%) and rarely 49 (21.5%), while 25 (11.0%) reported always and 19 (8.3%) reported never. Reflection on how a future medical career can contribute to achieving UHC was reported as sometimes by 75 (32.9%), followed by rarely 60 (26.3%) and often 56 (24.6%), while 20 (8.8%) reported always and 17 (7.5%) reported never.

Planning to work in areas with limited healthcare access during training or post-qualification was reported as often by 75 (32.9%) and sometimes 72 (31.6%), followed by rarely 46 (20.2%), while 18 (7.9%) reported never and 17 (7.5%) reported always.

Finally, considering UHC-related values such as universality, equity, and quality when thinking about one's medical role was reported as sometimes by 84 (36.8%), followed by often 52 (22.8%) and rarely 50 (21.9%), while 26 (11.4%) reported always and 16 (7.0%) reported never.

Figure 3 shows that the overall practice towards UHC was generally low among respondents, as 151 (66.2%) demonstrated poor practice, while only 77 (33.8%) had good practice.

Table 7: Practices towards Universal Health Coverage

Variable	1	2	3	4	5
	Freq (%)	Freq (%)	Freq (%)	Freq (%)	Freq (%)
Attended lectures/workshops/seminars addressing UHC principles	18 (7.9)	42 (18.4)	81 (35.5)	51 (22.4)	36 (15.8)
Engage in academic discussions on UHC-related topics	20 (8.8)	41 (18.0)	89 (39.0)	58 (25.4)	20 (8.8)
Completed coursework/research projects on UHC or health policy	18 (7.9)	43 (18.9)	74 (32.5)	61 (26.8)	32 (14.0)
Reflect on access and affordability when interacting with patients	14 (6.1)	47 (20.6)	78 (34.2)	65 (28.5)	24 (10.5)
Inquire about patients' socioeconomic background (access/equity)	19 (8.3)	60 (26.3)	77 (33.8)	48 (21.1)	24 (10.5)
Involved in community-based health activities for vulnerable/underserved populations	18 (7.9)	43 (18.9)	74 (32.5)	64 (28.1)	29 (12.7)
Participate in student organisations supporting UHC/health equity	14 (6.1)	47 (20.6)	79 (34.6)	59 (25.9)	29 (12.7)
Engaged in campaigns/events promoting health access or UHC	23 (10.1)	40 (17.5)	88 (38.6)	56 (24.6)	21 (9.2)
Use platforms (e.g., social media) to raise awareness about UHC/inequalities	19 (8.3)	49 (21.5)	85 (37.3)	50 (21.9)	25 (11.0)
Reflect on how future medical career can contribute to achieving UHC	17 (7.5)	60 (26.3)	75 (32.9)	56 (24.6)	20 (8.8)
Plan to work in areas with limited healthcare access (during or after training)	18 (7.9)	46 (20.2)	72 (31.6)	75 (32.9)	17 (7.5)
Consider UHC-related values (universality, equity, quality) when thinking about medical role	16 (7.0)	50 (21.9)	84 (36.8)	52 (22.8)	26 (11.4)

1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always

Figure 3: Overall Practice Level of UHC

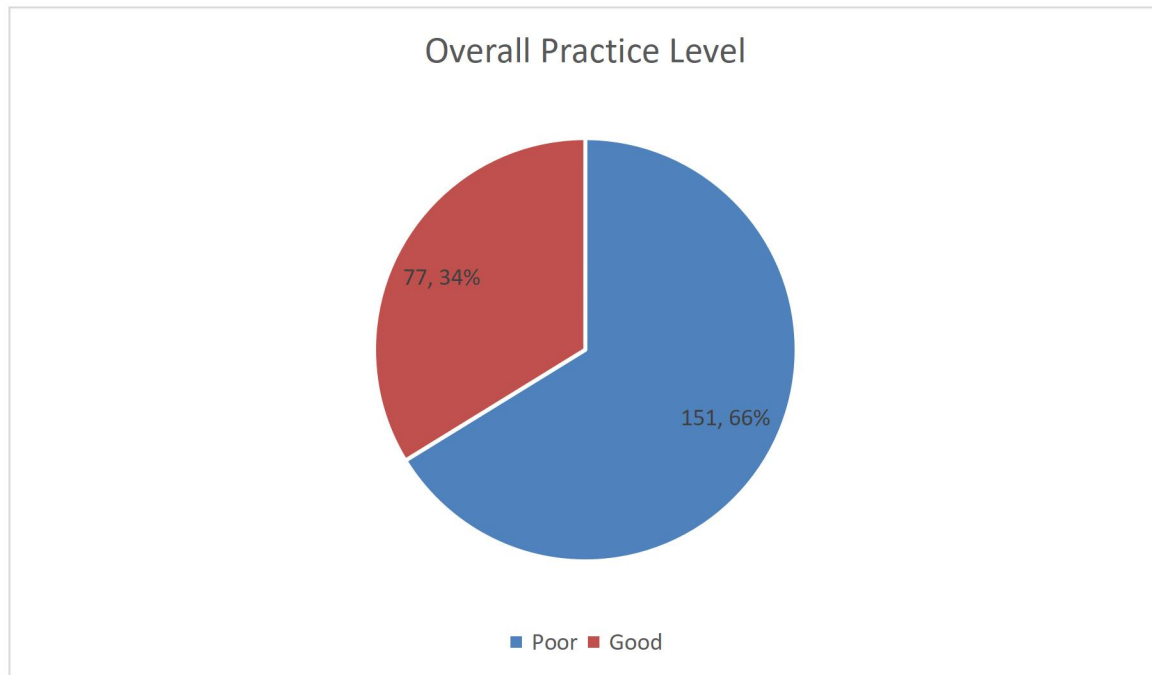


Table 8 shows the Association between Knowledge of Universal Health Coverage (UHC) and Sociodemographics Characteristics.

Knowledge of UHC was significantly associated with age group ($\chi^2=67.144$, $p<0.001$). Respondents aged 16–20 years had the lowest proportion with good knowledge 29 (29.6%) and the highest proportion with poor knowledge 69 (70.4%). In contrast, good knowledge was more common among older age groups, including those aged 21–25 years 85 (82.5%) versus 18 (17.5%) with poor knowledge, those aged 26–30 years 19 (82.6%) versus 4 (17.4%), and those older than 30 years where all respondents had good knowledge 4 (100.0%) and none had poor knowledge 0 (0.0%).

There was also a statistically significant association between knowledge of UHC and class ($\chi^2=112.558$, $p<0.001$). Good knowledge was highest among Medical Clinical students 109 (90.1%) compared with 12 (9.9%) who had poor knowledge, and among Dental Clinical students 9 (81.8%) compared with 2 (18.2%). Conversely, poor knowledge predominated among Dental Preclinical students 8 (80.0%) compared with 2 (20.0%) with good knowledge, and among Medical Preclinical students 69 (80.2%) compared with 17 (19.8%) with good knowledge.

Similarly, knowledge of UHC was significantly associated with academic level ($\chi^2=116.015$, $p<0.001$). Good knowledge was most prevalent in the senior levels, including 600L 46 (90.2%) versus 5 (9.8%) with poor knowledge, 400L 51 (89.5%) versus 6 (10.5%), and 500L 21 (87.5%) versus 3 (12.5%). In contrast, lower levels had markedly higher proportions of poor knowledge, including 200L 29 (93.5%) versus 2 (6.5%) with good knowledge, 300L 21 (77.8%) versus 6 (22.2%), and 100L 27 (71.1%) versus 11 (28.9%).

Gender was not significantly associated with knowledge of UHC ($\chi^2=0.036$, $p=0.850$), with similar distributions observed among females 48 (59.3%) with good knowledge and 33 (40.7%)

with poor knowledge, and males 89 (60.5%) with good knowledge and 58 (39.5%) with poor knowledge. Likewise, having a first degree was not significantly associated with UHC knowledge ($\chi^2=0.538$, $p=0.463$), as good knowledge was observed in 126 (59.4%) of those without a first degree compared with 11 (68.8%) of those with a first degree.

In contrast, exposure to a formal course on health policy/UHC showed a significant association with knowledge of UHC ($\chi^2=31.412$, $p<0.001$). Respondents who had taken a formal course demonstrated substantially higher good knowledge 55 (90.2%) and lower poor knowledge 6 (9.8%), whereas those without such a course had lower good knowledge 82 (49.1%) and higher poor knowledge 85 (50.9%).

Table 8: Association between Knowledge of Universal Health Coverage (UHC) and Sociodemographics Characteristics

Category	Knowledge of UHC (n=228)		χ^2	p-value
	Good	Poor		
	(n=137) Freq (%)	(n=91) Freq (%)		
Age group (years)			67.144	<0.001*
16–20	29 (29.6)	69 (70.4)		
21–25	85 (82.5)	18 (17.5)		
26–30	19 (82.6)	4 (17.4)		
>30	4 (100.0)	0 (0.0)		
Class			112.558	<0.001*
Dental Clinical	9 (81.8)	2 (18.2)		
Dental Preclinical	2 (20.0)	8 (80.0)		
Medical Clinical	109 (90.1)	12 (9.9)		
Medical Preclinical	17 (19.8)	69 (80.2)		
Level			116.015	<0.001*
100L	11 (28.9)	27 (71.1)		
200L	2 (6.5)	29 (93.5)		
300L	6 (22.2)	21 (77.8)		
400L	51 (89.5)	6 (10.5)		
500L	21 (87.5)	3 (12.5)		
600L	46 (90.2)	5 (9.8)		
Gender			0.036	0.850
Female	48 (59.3)	33 (40.7)		
Male	89 (60.5)	58 (39.5)		
First degree			0.538	0.463
No	126 (59.4)	86 (40.6)		
Yes	11 (68.8)	5 (31.3)		
Formal course on Health Policy/UHC			31.412	<0.001*
No	82 (49.1)	85 (50.9)		
Yes	55 (90.2)	6 (9.8)		

**Statistically significant ($p < 0.05$)*

Table 9 shows the Association between Attitude towards of Universal Health Coverage and Sociodemographic Characteristics. Attitude towards UHC was significantly associated with age group ($\chi^2=13.234$, $p=0.004$). Respondents aged 16–20 years had the lowest proportion with positive attitudes 79 (80.6%) and the highest proportion with negative attitudes 19 (19.4%). In comparison, those aged 21–25 years had a higher prevalence of positive attitude 97 (94.2%) and fewer negative attitudes 6 (5.8%), while all respondents aged 26–30 years 23 (100.0%) and those older than 30 years 4 (100.0%) demonstrated positive attitudes, with none reporting negative attitudes.

There was also a statistically significant association between attitude towards UHC and class ($\chi^2=26.741$, $p<0.001$). Positive attitude was most common among Medical Clinical students 119 (98.3%) compared with 2 (1.7%) who had negative attitudes. Similarly, high proportions of positive attitude were observed among Dental Clinical students 10 (90.9%) and Dental Preclinical students 9 (90.0%), with only 1 (9.1%) and 1 (10.0%) respectively reporting negative attitudes. In contrast, Medical Preclinical students had the lowest proportion with positive attitude 65 (75.6%) and the highest proportion with negative attitude 21 (24.4%).

Academic level was similarly associated with attitude towards UHC ($\chi^2=26.439$, $p<0.001$). Positive attitude increased with higher levels, with 56 (98.2%) of 400L students reporting positive attitudes compared with 1 (1.8%) negative, and all 600L students 51 (100.0%) reporting positive attitudes with none negative 0 (0.0-%). Positive attitude was also high in 500L 22 (91.7%) and relatively lower in the junior levels, including 300L 22 (81.5%) versus 5 (18.5%) negative, 200L 24 (77.4%) versus 7 (22.6%), and 100L 28 (73.7%) versus 10 (26.3%).

Gender was not significantly associated with attitude towards UHC ($\chi^2=1.629$, $p=0.202$), although a slightly higher proportion of females had positive attitudes 75 (92.6%) compared with

males 128 (87.1%). Similarly, possession of a first degree was not significantly associated with attitude ($\chi^2=0.042$, $p=0.839$), as positive attitude was reported by 189 (89.2%) of those without a first degree compared with 14 (87.5%) of those with a first degree.

Formal exposure to a health policy/UHC course was not significantly associated with attitude at the 5% level ($\chi^2=3.119$, $p=0.077$). However, respondents who had taken a formal course showed a higher proportion with positive attitude 58 (95.1%) and fewer negative attitudes 3 (4.9%), compared with those without such a course where 145 (86.8%) had positive attitudes and 22 (13.2%) had negative attitudes.

Table 9: Association between Attitude towards of Universal Health Coverage and Sociodemographic Characteristics

Category	Attitude Towards UHC (n=228)		χ^2	p-value
	Positive	Negative		
	(n=203) Freq (%)	(n=25) Freq (%)		
Age group (years)			13.234	0.004*
16–20	79 (80.6)	19 (19.4)		
21–25	97 (94.2)	6 (5.8)		
26–30	23 (100.0)	0 (0.0)		
>30	4 (100.0)	0 (0.0)		
Class			26.741	<0.001*
Dental Clinical	10 (90.9)	1 (9.1)		
Dental Preclinical	9 (90.0)	1 (10.0)		
Medical Clinical	119 (98.3)	2 (1.7)		
Medical Preclinical	65 (75.6)	21 (24.4)		
Level			26.439	<0.001*
100L	28 (73.7)	10 (26.3)		
200L	24 (77.4)	7 (22.6)		
300L	22 (81.5)	5 (18.5)		
400L	56 (98.2)	1 (1.8)		
500L	22 (91.7)	2 (8.3)		
600L	51 (100.0)	0 (0.0)		
Gender			1.629	0.202
Female	75 (92.6)	6 (7.4)		
Male	128 (87.1)	19 (12.9)		
First degree			0.042	0.839
No	189 (89.2)	23 (10.8)		
Yes	14 (87.5)	2 (12.5)		
Formal course on Health Policy/UHC			3.119	0.077
No	145 (86.8)	22 (13.2)		
Yes	58 (95.1)	3 (4.9)		

*Statistically significant ($p < 0.05$)

Table 10 shows the Association between Practices towards Universal Health Coverage and Sociodemographic Characteristics. Practices towards UHC were significantly associated with age group ($\chi^2=44.889$, $p<0.001$). Respondents aged 16–20 years had the lowest proportion with good practice 10 (10.2%) and the highest proportion with poor practice 88 (89.8%). In contrast, good practice was more common among those aged 21–25 years 52 (50.5%) compared with 51 (49.5%) with poor practice, and among those aged 26–30 years 14 (60.9%) compared with 9 (39.1%). Respondents older than 30 years had predominantly poor practice 3 (75.0%), with only 1 (25.0%) reporting good practice.

There was also a statistically significant association between practices towards UHC and class ($\chi^2=85.446$, $p<0.001$). Good practice was observed among Medical Clinical students 72 (59.5%) compared with 49 (40.5%) with poor practice, and among Dental Clinical students 5 (45.5%) compared with 6 (54.5%). Conversely, none of the Dental Preclinical students 0 (0.0%) and none of the Medical Preclinical students 0 (0.0%) had good practice, as all reported poor practice 10 (100.0%) and 86 (100.0%) respectively.

Academic level was similarly associated with UHC practices ($\chi^2=85.277$, $p<0.001$). None of the respondents in 100L 0 (0.0%), 200L 0 (0.0%), or 300L 0 (0.0%) demonstrated good practice, as all reported poor practice 38 (100.0%), 31 (100.0%), and 27 (100.0%) respectively. In contrast, good practice was more prevalent in the senior levels, including 400L 31 (54.4%) versus 26 (45.6%) poor practice, 500L 15 (62.5%) versus 9 (37.5%), and 600L 31 (60.8%) versus 20 (39.2%).

Gender was not significantly associated with practice towards UHC ($\chi^2=0.232$, $p=0.630$), with comparable distributions among females 29 (35.8%) with good practice and 52 (64.2%) with poor practice, and males 48 (32.7%) with good practice and 99 (67.3%) with poor practice.

Similarly, possession of a first degree was not significantly associated with practice ($\chi^2=0.049$, $p=0.825$), as good practice was reported among 72 (34.0%) of those without a first degree compared with 5 (31.3%) of those with a first degree.

In contrast, having taken a formal course on health policy/UHC was significantly associated with practice towards UHC ($\chi^2=37.658$, $p<0.001$). Respondents who had taken a formal course demonstrated substantially higher good practice 40 (65.6%) and lower poor practice 21 (34.4%), whereas those without such a course had lower good practice 37 (22.2%) and higher poor practice 130 (77.8%).

Table 10 Association between Practices towards Universal Health Coverage and Sociodemographic Characteristics

Category	Practice Towards UHC		χ^2	p-value
	Good	Poor		
	(n=77) Freq (%)	(n=151) Freq (%)		
Age group (years)			44.889	<0.001*
16–20	10 (10.2)	88 (89.8)		
21–25	52 (50.5)	51 (49.5)		
26–30	14 (60.9)	9 (39.1)		
>30	1 (25.0)	3 (75.0)		
Class			85.446	<0.001*
Dental Clinical	5 (45.5)	6 (54.5)		
Dental Preclinical	0 (0.0)	10 (100.0)		
Medical Clinical	72 (59.5)	49 (40.5)		
Medical Preclinical	0 (0.0)	86 (100.0)		
Level			85.277	<0.001*
100L	0 (0.0)	38 (100.0)		
200L	0 (0.0)	31 (100.0)		
300L	0 (0.0)	27 (100.0)		
400L	31 (54.4)	26 (45.6)		
500L	15 (62.5)	9 (37.5)		
600L	31 (60.8)	20 (39.2)		
Gender			0.232	0.630
Female	29 (35.8)	52 (64.2)		
Male	48 (32.7)	99 (67.3)		
First degree			0.049	0.825
No	72 (34.0)	140 (66.0)		
Yes	5 (31.3)	11 (68.8)		
Formal course on Health Policy/UHC			37.658	<0.001*
No	37 (22.2)	130 (77.8)		
Yes	40 (65.6)	21 (34.4)		

*Statistically significant ($p < 0.05$)

CHAPTER FIVE

DISCUSSION

5.1 Discussion

Universal Health Coverage (UHC) is a central global health goal intended to ensure that everyone can access needed health services of adequate quality without experiencing financial hardship.³ It is also embedded in Sustainable Development Goal (SDG) target 3.8, which emphasizes both service coverage and financial risk protection as core elements of health system performance.³ In low- and middle-income countries, progress towards UHC is shaped by the strength of primary healthcare, availability of essential services, quality of care, and the extent to which health financing systems protect households from catastrophic health.⁴ Achieving UHC therefore requires more than expanding service availability; it requires sustainable financing arrangements, governance capacity, and a health workforce that is able to implement UHC principles in everyday clinical decisions and health-system engagement.³

In Nigeria, UHC remains a major challenge due to long-standing reliance on out-of-pocket payments, low insurance coverage, and health system constraints such as workforce shortages and uneven access to services across settings.^{8, 13} Heavy out-of-pocket expenditure affects not only healthcare utilisation but also adherence to treatment plans and timely uptake of preventive services, especially among low-income households.⁸ Policy reforms such as the National Health Insurance Authority (NHIA) Act 2022 represent an important attempt to improve regulation and expand health insurance coverage as a pathway to stronger financial protection.⁹ However, translating policy into real population coverage depends strongly on health worker understanding of UHC principles, their willingness to support equity-focused reforms, and their ability to communicate these principles to patients and communities.

Medical and dental students represent future clinicians and health leaders who will influence service delivery, patient counselling, and broader health-system strengthening efforts. Their understanding of UHC, their attitudes towards equity and financial protection, and their actual engagement in UHC-related activities during training are therefore important, because early professional orientation often shapes later practice patterns and interest in advocacy.³ Against this background, this study assessed knowledge, attitudes and practices regarding UHC among medical and dental students in Benin City and examined associations between these outcomes and sociodemographic characteristics. The findings offer useful insights for curriculum strengthening and the design of student-centred platforms for health policy engagement.

Participants were mostly young adults (mean age 21.75 ± 3.89 years), with 88.2% aged 16–25 years. This age distribution is expected within undergraduate medical and dental training and is relevant because earlier years are typically dominated by basic sciences, while health policy and health systems strengthening concepts are more often emphasised during senior clinical years and community medicine postings. Therefore, differences in UHC knowledge and engagement across age groups may reflect differences in curriculum exposure and clinical experience rather than motivation alone.³

Most respondents were male (64.5%) and almost all were single (96.5%), which is also typical for undergraduate cohorts. While sex and marital status can influence health beliefs in community populations, their relevance among students is usually less pronounced than academic exposure and training stage, especially when the outcomes assessed are policy-related knowledge and structured academic practices.

The sample was predominantly medical students (90.8%), with only 9.2% dental students. This means the findings largely reflect medical students' experiences and teaching exposure. Dental

subgroups also had smaller numbers, so percentages in those groups can fluctuate more easily. By class, over half were medical clinical students (53.1%), followed by medical preclinical students (37.7%). This is particularly important because clinical students generally have more patient contact and are therefore more likely to observe real-world barriers that UHC aims to address, such as inability to pay for investigations, delayed presentation, and discontinuation of treatment due to cost. Such exposure can strengthen understanding of financial protection and equity, which are core to UHC.^{3, 4}

A key contextual finding was that only about one quarter of the participants had taken a formal course on health policy/UHC. This limited exposure has implications for both knowledge and practice, because UHC frameworks, health financing mechanisms, and national reforms are not always well understood without structured teaching. In Nigeria's current reform context, broader coverage expansion requires a workforce that understands insurance systems, benefit packages, and patient navigation across levels of care competencies that begin to develop during training.⁹ Taken together, this sociodemographic profile suggests a cohort with a mix of junior and senior students, strong representation of clinical trainees, but low formal exposure to policy/UHC coursework, an important explanatory background for interpreting the patterns observed in knowledge, attitudes, and especially practices.

A key finding of this study is that 60.1% of respondents demonstrated good knowledge of UHC. On core concepts, performance was encouraging: 68.0% correctly identified the primary goal of UHC as ensuring access to needed services without financial hardship, consistent with the WHO definition.²⁷ Similarly, 71.1% correctly identified the UHC Service Coverage Index as the SDG 3.8.1 indicator used to monitor UHC service coverage, an important marker of foundational UHC literacy.²⁸ Many also correctly recognized that UHC does not imply that all health services

must be free at the point of use (72.4% answered “False”), reflecting an understanding that UHC is centred on financial protection, not necessarily absolute zero payment.²⁸

However, the knowledge profile also shows areas of inconsistency. While many respondents selected “all of the options” for UHC framework components (68.9%), responses across related questions suggest confusion about what counts as a “component,” “dimension,” or “non-component.” This matters because fragmented knowledge can produce superficial agreement with UHC without a coherent grasp of how population coverage, service coverage and financial protection interact within real health systems. Similar patterns, where learners endorse UHC ideas but show uneven understanding of UHC policy details, have been reported among university students in Saudi Arabia, where knowledge of UHC policies was relatively low despite favorable perceptions.²¹

In comparing settings, the overall knowledge level appears stronger than what was reported among Alfaisal University students in Saudi Arabia.²¹ A plausible explanation is contextual: Nigerian medical students may encounter UHC themes indirectly through national debates on health financing, out-of-pocket payment burdens, and health insurance reforms, making the concept more “visible” even when formal teaching is limited. Nevertheless, the persistence of misconceptions in the study data indicates that awareness alone does not guarantee conceptual clarity.

A striking feature of the result of this study is that knowledge increased with age, class and academic level, and was particularly higher among those with structured exposure. Students aged 16–20 years had comparatively low good knowledge, while good knowledge was much higher among those aged 21–25 and 26–30, and universal among those above 30 years (100.0%). By training stage, knowledge was highest among medical clinical students (90.1%) and lowest

among medical preclinical (19.8%) and dental preclinical (20.0%) students. By academic level, senior students had much higher good knowledge, compared with junior levels.

Most importantly, students who had taken a formal health policy/UHC course had substantially higher good knowledge compared with those who had not. This aligns with broader evidence that structured health insurance or financing education improves health policy literacy and orientation toward coverage and access.²⁹ More broadly, the argument that “learning for UHC” must be deliberate and systematized, rather than assumed to occur naturally has been emphasized in global discussions on policy learning for UHC in LMICs.²³ In practical terms, the findings support the need to integrate UHC content earlier and more consistently within medical and dental curricula, rather than leaving it to informal exposure.

Attitudes toward UHC were overwhelmingly positive in this study, with 89.0% of respondents demonstrating a positive attitude. Most endorsed UHC as a rights-and-equity issue: 74.6% agreed or strongly agreed that healthcare is a fundamental human right, and 74.1% agreed or strongly agreed that all citizens should receive healthcare regardless of ability to pay. Similarly, 80.3% agreed or strongly agreed that their future role as doctors includes contributing to achieving UHC, while 75.5% supported policies and leaders who prioritise UHC implementation. This strong normative support is consistent with findings among Irish medical students, who were generally positively disposed toward universal access and viewed equitable access as an important societal goal.¹⁹

Beyond these positive attitudes, respondents’ perceptions revealed important concerns regarding the feasibility and sustainability of UHC implementation. Almost half of the respondents agreed or strongly agreed that UHC may place excessive financial strain on the healthcare system and that UHC could reduce quality of care by overburdening healthcare providers, while sizeable

proportions remained neutral. These findings indicate that although students strongly support the principles of UHC, many perceive significant structural and resource-related challenges to its successful implementation. This pattern closely mirrors observed in 2020, where medical students expressed support for UHC alongside apprehension about workload and system capacity.¹⁹ Such perceptions reflect a realistic appreciation of the constraints faced by health systems in low-resource settings, where limited financing, workforce shortages, and infrastructural gaps may threaten the quality and sustainability of expanded coverage.

Notably, attitude patterns varied by seniority: positive attitude was lower among 16–20 years (80.6%) compared with 21–25 (94.2%), and it reached 100% among those aged 26–30 and above 30. Likewise, medical clinical students (98.3%) and senior levels such as 600L (100.0%) and 400L (98.2%) showed higher positivity than junior levels like 100L (73.7%). This likely reflects how increased clinical exposure makes inequities in access and affordability more visible, strengthening students' value commitment to UHC. In contrast, attitudes were broadly similar by gender and by first degree status, suggesting that values around universal access are widely shared across these subgroups in this setting.

The most important disconnect identified in this study lies between students' positive attitudes and perceptions of UHC and their limited routine engagement with UHC-related activities. Despite strong attitudes and reasonable knowledge, 66.2% of respondents had poor practice, and only 33.8% demonstrated good practice. Across nearly all practice domains, the modal response was "sometimes." For example, attendance at UHC-related seminars was most commonly "sometimes" (35.5%), discussions on UHC were "sometimes" (39.0%), and advocacy via platforms such as social media was "sometimes" (37.3%). Even equity-oriented clinical behaviours, reflecting on access/affordability and asking about patients' socioeconomic

backgrounds, were most frequently “sometimes” (34.2% and 33.8%, respectively), with relatively low “always” responses (10.5% for both).

This pattern suggests that UHC may be accepted as an idea and understood at a conceptual level, but it is not yet embedded as a routine professional behaviour among most students. In other words, there is a gap between values/knowledge and consistent action. This “KAP gap” is common in health education: learners may express strong support for an ideal but struggle to translate it into behaviour when opportunities, mentorship, assessment incentives, or institutional structures are limited. Global discussions on learning for UHC similarly argue that health systems learning often remains teacher-driven and conceptual, while practical systems engagement remains underdeveloped.²³ This research data provide local empirical support for this argument: students may need structured avenues—coursework, community placements, supervised advocacy tasks, and evaluation rubrics to shift UHC practice from “sometimes” to “often/always.”

Practice improved strongly with academic maturity. Good practice was particularly low among 16–20 years (10.2%), but rose among 21–25 (50.5%) and 26–30 (60.9%). By class, medical clinical students showed much higher good practice (59.5%) compared with groups such as medical preclinical and dental preclinical, where none demonstrated good practice (all had poor practice). By level, the pattern was even clearer: 100L, 200L and 300L recorded 0% good practice, while senior levels performed better—400L (54.4%), 500L (62.5%), and 600L (60.8%). Formal training again appears pivotal. Among those exposed to a formal health policy/UHC course, 65.6% demonstrated good practice compared with 22.2% among those without such exposure. This aligns with evidence that structured insurance/health education can improve not only knowledge and attitudes but also utilisation behaviours and engagement.²⁹ It also reinforces

the practical implication that UHC education should not be limited to theory: it should include supervised activities and applied tasks that promote behavioural change.

The findings highlight three actionable implications. First, UHC knowledge and practice appear to rise with seniority and clinical exposure, indicating that early-year students are a critical intervention group. Introducing UHC concepts early using simple models, real Nigerian case scenarios, and clear distinctions between service coverage, quality and financial protection, may reduce misconceptions and prepare students for applied learning later.²⁹ Second, the large gap between attitude and practice suggests that curricula should move beyond “awareness” to competence building through assessed coursework, community postings focused on equity, student-led advocacy projects, and structured reflection on affordability and access during clinical encounters.²³ Third, the strong association between formal course exposure and both knowledge and practice supports mainstreaming health policy/UHC teaching across medical and dental training, rather than offering it as an optional or peripheral topic.²⁹

5.1 Conclusion

This study assessed the knowledge, attitudes, perceptions, and practices related to Universal Health Coverage (UHC) among medical and dental students at the University of Benin. The findings show that respondents generally possessed good knowledge of UHC and demonstrated strongly positive attitudes towards its principles, particularly regarding equity, access to healthcare as a fundamental human right, and professional responsibility to support UHC. However, important perception-related concerns were identified, especially regarding the financial sustainability of UHC and its potential impact on quality of care within resource-constrained health systems.

Despite favourable knowledge and attitudes, practical engagement with UHC was limited, with most respondents reporting only occasional involvement in UHC-related learning, advocacy, and community-based activities. This highlights a clear gap between support for UHC and consistent action. Academic seniority and exposure to formal health policy or UHC training were associated with better knowledge, more positive attitudes, and stronger practices, underscoring the role of structured education and clinical exposure in shaping meaningful engagement.

In conclusion, while future healthcare professionals at the University of Benin are well-disposed towards Universal Health Coverage and understand its importance, translating these values into sustained practice remains a challenge. Strengthening early, structured, and practice-oriented UHC education is essential to prepare graduates who can actively contribute to the achievement of Universal Health Coverage in Nigeria.

5.3 Recommendations

Given the pattern observed in this study, good knowledge (60.1%) and very positive attitudes (89.0%), but low practice (66.2% poor practice), interventions should prioritise converting UHC awareness and support into consistent, observable behaviours. Recommendations are proposed at curriculum, institutional, and policy levels.

1) Strengthen and standardise UHC teaching across all levels (especially preclinical years)

The very low knowledge and practice among junior students (e.g., 200L: 6.5% good knowledge; 100–300L: 0% good practice) suggests that UHC learning is currently concentrated in senior/clinical years. UHC content should therefore be introduced early and scaffolded progressively from 100–300 level, focusing on the WHO UHC cube, SDG 3.8.1 monitoring, essential services, and financial protection. This should be embedded into Community

Medicine/Public Health and clinical introductory modules, with clear learning outcomes and assessments.²⁸

2) Make health policy/UHC training compulsory and competency-based

Only 26.8% of respondents had taken a formal course on health policy/UHC, yet those exposed showed markedly higher good knowledge (90.2%) and better practice (65.6%). Faculties should make health policy/UHC a compulsory course (or a compulsory module within existing courses) and assess competence using case-based scenarios such as: how to counsel patients on affordability, referral pathways, insurance options, and equity-focused decision-making.^{23, 28}

3) Convert positive attitudes into routine behaviours through structured practical exposure

Although 89.0% had positive attitudes, most UHC-related practices clustered around “sometimes” across domains (e.g., advocacy, community engagement, academic discussions).

Schools should create structured practical requirements such as:

- mandatory participation in at least one UHC-related seminar/workshop per semester,
- supervised community outreach to underserved groups,
- assessed advocacy activities (policy briefs, debates, health equity campaigns),
- reflective logs on affordability and access barriers encountered during clinical postings.

Such approaches strengthen applied learning and help bridge the knowledge–attitude–practice gap.^{19, 23}

4) Institutionalise mentorship and student-led UHC advocacy platforms

Because only 11.0% reported “always” using platforms to raise awareness about UHC/inequalities and advocacy activities were generally inconsistent, departments should establish student UHC clubs, mentorship programmes led by public health and health financing experts, and peer-learning platforms that promote sustained engagement. This supports long-

term internalisation of UHC responsibilities and builds leadership for future health system reform.¹⁹

5) Integrate equity-focused clinical communication skills into routine clinical training

Since equity-related behaviours, such as reflecting on affordability and asking about socioeconomic background, were mostly reported as “sometimes,” clinical teaching should deliberately incorporate structured socioeconomic history-taking, referral options, and counselling on cost-effective care. These competencies align with the UHC goal of financial protection and equitable service access.²⁷

6) Strengthen partnerships with health insurance and primary healthcare programmes for experiential learning

Students should have guided exposure to Nigeria’s health financing mechanisms, such as health insurance operations, NHIA-related implementation activities, and PHC strengthening initiatives. This will make UHC less abstract and help students understand system-level pathways for improving access and financial protection.²⁶

7) Continuous monitoring and evaluation of UHC competence among students

Medical and dental schools should periodically assess students’ UHC competence using structured tools covering knowledge, attitudes and practice, and use findings to update curricula. This ensures that UHC training remains responsive and produces measurable improvements over time.²⁸

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APPENDIX I

INFORM CONSENT FORM

Study Title: Knowledge, Attitude, and Perception of Universal Health Coverage Among Medical Students

Introduction:

You are invited to participate in a study by Final year to assess medical students' understanding of Universal Health Coverage (UHC). Your responses will help improve awareness and policy discussions.

Participation:

Your participation is voluntary. You may withdraw at any time without penalty.

Procedures:

You will complete a brief questionnaire (10–15 minutes) on UHC knowledge and perceptions.

Risks & Benefits:

No significant risks. Your input may help shape future UHC education and policy.

Confidentiality:

Responses are anonymous and securely stored.

Consent:

By proceeding, you confirm understanding and voluntary participation.

Signature: _____

Date: _____

APPENDIX II

QUESTIONNAIRE

Section A: Socio-demographic information

QUESTIONNAIRE

Section A: Socio-demographic information

1. Age (as at last birthday): 16-20 ☐ 21-25 ☐ 26-30 ☐ >30 ☐
2. Gender: Male ☐ Female ☐
3. Ethnic group: Bini ☐ Yoruba ☐ Esan ☐ (d) Igbo ☐ (Hausa ☐ Etsako ☐ Others (specify).....
4. Religion: Christian ☐ (Muslim ☐ others (specify).....
5. Marital status: Single ☐ Married ☐ Divorced/Separated ☐ Widowed ☐
6. Class: Medical: Preclinical ☐ Clinical ☐ or Dental: Preclinical ☐ Clinical ☐
7. Level of study: 100L ☐ 200L ☐ 300L ☐ 400L ☐ 500L (a) ☐ 500L (b) ☐ 600L (a) ☐ 600L (b) ☐
8. Do you have a first degree? Yes ☐ No ☐
9. Have you taken any formal courses on health policy or UHC? Yes ☐ No ☐

Section B: QUESTIONNAIRE ON KNOWLEDGE TOWARDS UNIVERSAL HEALTH COVERAGE (UHC)

1. What is Universal Health Coverage (UHC) primary goal?
 - A. To provide only emergency care for free
 - B. To ensure all people receive the health services they need without suffering financial hardship
 - C. To expand private health insurance
 - D. To reduce hospital overcrowding
2. Which of the following are components of the UHC framework?
 - A. Financial protection
 - B. Access to essential health services
 - C. Health service quality
 - D. All the above

3. UHC aims to provide access to essential health services. Which of the following is not included in this category according to WHO standards?

- A. Cosmetic dermatology
- B. Routine immunisations
- C. Screening for hypertension and diabetes
- D. Antenatal and postnatal care

4. Which global indicator is used to monitor service coverage under UHC in the Sustainable Development Goals (SDG 3.8.1)?

- A. Life expectancy
- B. Service Availability and Readiness Score (SARA)
- C. UHC Service Coverage Index
- D. GDP per capita

5. True or False:

UHC means that all health services must be free at the point of use.

- A. True
- B. False
- C. Not sure
- D. Don't know

6. Which of the following is not a component of the UHC framework?

- A. Financial protection
- B. Access to essential health services
- C. Health service quality
- D. Luxury health services

7. Which dimension is not part of the WHO's UHC Cube?

- A. Population coverage
- B. Service coverage
- C. Financial protection
- D. Hospital bed capacity

8. One of the following is not a barrier to achieving UHC in low-resource settings?

- A. Lack of health workforce
- B. Inadequate infrastructure
- C. Excessive out-of-pocket expenditure
- D. Community-based health insurance scheme

9. Which of the following is the most equitable way to finance UHC?

- A. Out-of-pocket payments
- B. General taxation or national health insurance
- C. Direct donations from patients
- D. Voluntary private insurance schemes

10. Which of the following is a key component of UHC?

- A. Health promotion
- B. Disease prevention
- C. Medical treatment
- D. All of the above.

11. Does Nigeria have a policy aimed at achieving UHC? Yes [] No [] Uncertain []

12. In the context of Nigeria's health system, name one policy or programme that contributes to UHC.

(Open response: tailored to Nigeria context — e.g., _____)

Section C: QUESTIONNAIRE ON ATTITUDES TOWARDS UNIVERSAL HEALTH COVERAGE (UHC)

(1 = Strongly Disagree, 2= disagree. 3= neutral. 4 = agree. 5 = Strongly Agree)

Section A: Core Values and Beliefs about UHC

- 1. I believe that access to healthcare should be regarded as a fundamental human right.
- 2. Ensuring equitable access to healthcare is more important than preserving the current market-based system.
- 3. I support the idea that all citizens should receive healthcare regardless of their ability to pay.

Section B: Professional Responsibility and Future Role

- 4. As a medical student, I feel a personal responsibility to advocate for UHC.
- 5. My future role as a doctor includes contributing to efforts to achieve UHC.
- 6. I am willing to work in underserved or rural areas as part of a strategy to improve access to healthcare.

Section C: Perceived Feasibility and Challenges

- 7. I am concerned that UHC may place excessive financial strain on the healthcare system.
- 8. I worry that UHC could reduce the quality of care by overburdening healthcare providers.

- 9. I believe that sustainable UHC requires increased investment in primary healthcare services.

Section D: Engagement and Support for UHC

10. I would support policies and leaders who prioritise the implementation of UHC.

11. I am interested in learning more about UHC and health systems strengthening.

12. I believe medical students should be actively involved in public health advocacy, including the promotion of UHC.

Section D: QUESTIONNAIRE ON PRACTICES TOWARDS UNIVERSAL HEALTH COVERAGE (UHC)

(1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always)

Section A: Educational Activities Related to UHC

1. I have attended lectures, workshops, or seminars that address UHC principles.

2. I engage in academic discussions (in class or with peers) on UHC-related topics.

3. I have completed coursework or research projects focused on UHC or health policy.

Section B: Clinical Practice and Patient-Centred Activities

4. I reflect on issues of access and affordability when interacting with patients.

5. I inquire about patients' socioeconomic background regarding access and equity.

6. I am involved in community-based health activities that serve vulnerable or underserved populations.

Section C: Advocacy and Health System Engagement

7. I participate in medical student organisations that support UHC or health equity.

8. I have engaged in campaigns or events promoting health access or UHC.

9. I use platforms such as social media to raise awareness about UHC or healthcare inequalities.

Section D: Personal and Professional Development

10. I reflect on how my future medical career can contribute to achieving UHC.

11. I plan to work in areas with limited healthcare access, either during training or post-

qualification.

12. I actively consider UHC-related values (e.g., universality, equity, quality) when thinking about my medical role