



Research Article

The Impact of Health Information Management Professionals on Service Delivery in the National Health Insurance Authority: A Case Study of Specialist Hospital, Sokoto State

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Abstract

This study examines the impact of Health Information Management (HIM) professionals on service delivery in the National Health Insurance Authority (NHIA), using Specialist Hospital Sokoto as a case study. Accurate and reliable health information is essential for effective healthcare service delivery, and HIM professionals play a vital role in ensuring data integrity, confidentiality, and accessibility. A descriptive cross-sectional design was used with a sample of 125 participants, of which 100 valid responses were analyzed. Data were collected through structured questionnaires and analyzed using frequency and percentage distribution. Findings revealed that 81% of respondents agreed that HIM professionals' involvement improved NHIA service delivery, while 80% reported a positive impact on patient satisfaction. The study concludes that HIM professionals significantly enhance healthcare efficiency, accuracy, and patient outcomes under NHIA services. It recommends strengthening training, digital health infrastructure, and policy support to maximize their effectiveness.

Keywords: Health Information Management, National Health Insurance Authority, Service Delivery, Healthcare Quality, Sokoto State.

Introduction

Health Information Management (HIM) plays a vital role in healthcare delivery by ensuring the availability of accurate, complete, and secure patient data. In Nigeria, the National Health Insurance Authority (NHIA) is mandated to provide affordable and accessible healthcare to all citizens. HIM professionals are central to this goal, as they manage patient data, streamline claims processing, and ensure compliance with data protection regulations. This study investigates how HIM professionals contribute to the efficiency and quality of NHIA service delivery at Specialist Hospital Sokoto.

Accurate health information is the foundation of effective healthcare delivery. It ensures that patients receive appropriate diagnosis, treatment, and follow-up care, while also enabling healthcare providers to plan, evaluate, and improve their services. Without accurate, timely, and complete data, it becomes difficult to make informed decisions that enhance patient outcomes, ensure efficient resource use, and support national health planning.

Health information management is the collection analysis, storage and protection of the quality of patient health information. This information can be either paper-based, a combination of paper and digital (hybrid) or as is more often the case, a fully electronic health record (EHR). HIM professionals are using advanced technology as they perform most HIM-related functions. The HIM professional must have a wide range of knowledge, including HIPAA laws that protect patient privacy, data analysis and how to harness computer systems that collect data.

Health information management (HIM) is the practice of acquiring, analyzing, and protecting digital and traditional medical information vital to providing quality patient care. It is a combination of business, science, and information technology. Health Information Management (HIM) is defined as the practice of acquiring, analyzing, and protecting digital and traditional medical information to ensure quality patient care. In essence, HIM professionals manage the

entire lifecycle of health information, from collection to archiving, ensuring its accuracy, integrity, and security. This field combines business, science, and information technology principles to manage healthcare data.

Health information management professional: Health Information Management professionals (HIMP) are vital to a national health insurance authority because they manage and protect sensitive patient data, ensuring accuracy, integrity, and security of health records.

The National Health Insurance Authority (NHIA) in Nigeria is a regulatory body responsible for ensuring access to quality healthcare for all Nigerians through health insurance. It was established to promote, regulate, and integrate all health insurance schemes in the country, ensuring that health insurance is mandatory for all citizens and legal residents. The NHIA also aims to provide a basic minimum package of health services to all Nigerians.

Statement Of the Problem

In Nigeria, the National Health Insurance Authority (NHIA) plays a critical role in promoting accessible and affordable healthcare for all citizens. Established to manage and regulate health insurance schemes, the NHIA seeks to achieve Universal Health Coverage (UHC) by ensuring that every Nigerian has access to quality healthcare services without financial hardship. The Authority oversees the accreditation of healthcare providers, monitors service delivery, and ensures compliance with national health standards.

Within this framework, Health Information Management (HIM) professionals serve as the backbone of healthcare data systems. They collect, organize, analyze, and safeguard patient health records both in paper and electronic formats. Their expertise ensures that health data is reliable, secure, and available for clinical decision-making, policy formulation, and research. HIM professionals also play a vital role in claims processing, monitoring service quality, and maintaining interoperability between healthcare systems under the NHIA.

The purpose of this study is to examine the impact of Health Information Management professionals on NHIA service delivery, focusing on the Specialist Hospital in Sokoto State. Specifically, it explores how HIM professionals contribute to the efficiency, quality, and accessibility of health services, as well as the challenges they face in fulfilling their roles within Nigeria's evolving health insurance system.

Objectives of the Study

The main objective of this study is to evaluate how well healthcare facilities meet established quality standards to ensure the provision of safe, effective, and reliable healthcare services to patients at the Specialist Hospital, Sokoto. Specifically, the study seeks to:

1. Promote equitable access to healthcare for all Nigerians, regardless of socioeconomic status.
2. Leverage private sector resources and expertise in the delivery of healthcare services.
3. Focus on reaching underserved populations and ensuring that vulnerable groups receive adequate health coverage and support.
4. Protect individuals and families from the financial burden associated with medical expenses.
5. Guarantee that all citizens have access to high-quality healthcare services.
6. Streamline operations, minimize fraud, and ensure that health insurance schemes comply with regulatory standards.

LITERATURE REVIEW

Conceptual Review

Qualified Health Information Management Professionals

A qualified Health Information Management Professional (HIMP) is an individual with formal education or certification in health information management who possesses the skills necessary to collect, organize, protect, and oversee patient data. Such professionals may hold designations such as Registered Health Information Administrator (RHIA) or Registered Health Information Technician (RHIT). Their core responsibilities include maintaining the integrity, accuracy, accessibility, and security of health records while ensuring compliance with national and international standards.

Sources of Funding for the National Health Insurance Authority (NHIA)

The NHIA receives funding from multiple sources, including:

- The Basic Healthcare Provision Fund (BHCPF)
- Health insurance levies
- Special intervention funds from the government
- Investment returns
- Grants, donations, and voluntary contributions

Additionally, the Vulnerable Group Fund (VGF) within the NHIA is supported by the BHCPF, health insurance levies, and other financial inflows designed to subsidize healthcare for disadvantaged groups.

Types of NHIA Programmes include:

1. Formal Sector Social Health Insurance Programme – provides comprehensive coverage for individuals employed in the formal sector.
2. Tertiary Institution Social Health Insurance Programme – designed for students and staff in higher institutions.
3. Voluntary Contributor Social Health Insurance Programme – allows individuals to voluntarily join and contribute.
4. Group, Individual, and Family Social Health Insurance Programme (GIFSHIP) – provides flexible insurance coverage for families and groups outside the formal sector.

Health Maintenance Organizations (HMOs) Supporting NHIA:

Mansard HMO, Hygeia HMO, Redcare HMO, Roding HMO, Greenbay HMO, Anchor HMO, Lifeworth HMO, and Swift HMO.

The National Health Insurance Scheme (NHIS), now managed under the NHIA, was designed by the Federal Government of Nigeria as a social health insurance programme to complement existing healthcare financing mechanisms and improve healthcare access. Despite its promise, participation levels remain low, particularly among informal sector workers.

Conceptual View of Health Information Management Professionals in NHIA

Health Information Management involves using digital platforms to store a patient's complete medical history—including demographic details, clinical data, prescriptions, laboratory results, and billing information. This data enables accurate clinical decisions, supports insurance claims, and facilitates healthcare analytics.

An insurance scheme functions as a risk management mechanism where individuals contribute premiums to an insurer, who, in turn, provides financial protection against specific medical expenses.

Factors Influencing NHIA Effectiveness

Several factors contribute to NHIA's success, including:

- **The NHIA Act (2022):** Introduced mandatory health insurance and private sector involvement.
- **Mandatory Enrollment:** Ensures continuous healthcare coverage for residents.
- **Funding Mechanisms:** Financed through VAT allocations, pooled contributions, and social security payments.
- **Exemption Policies:** Protect vulnerable groups such as children, the elderly, and the poor.
- **Socio-Economic Variables:** Income, education, and location influence enrollment and healthcare utilization.
- **Challenges:** Poor infrastructure, weak service delivery, and administrative inefficiencies continue to hinder progress.

Payment Mechanisms under NHIA

NHIA employs multiple payment models:

- **Capitation:** Fixed annual payments per beneficiary, regardless of service utilization.
- **Fee-for-Service:** Providers are paid per service rendered.
- **Case-Based Payment:** Fixed payment for each episode of care, such as surgery.
- **Discounted Fee Schedule:** Negotiated discounts with providers to control costs.

Only NHIA-certified facilities are eligible to receive payments, ensuring compliance with minimum quality standards.

Importance of HIM Professionals to NHIA

HIM professionals are critical to the NHIA's success through:

- **Data Management & Integrity:** Maintaining accurate and complete health information.
- **Data Security:** Protecting patient data from unauthorized access.
- **Coding & Standardization:** Ensuring the use of international codes (e.g., ICD-10) for diagnoses and billing.
- **Public Health Research:** Analyzing population data to support health planning.
- **Regulatory Compliance:** Upholding data protection laws and ethical standards.

Importance of the National Health Insurance Authority

The NHIA is vital for:

- Regulating and integrating all health insurance schemes in Nigeria.
- Ensuring mandatory health insurance coverage for citizens and residents.
- Defining a minimum healthcare package for all members.

- Managing the Basic Health Care Provision Fund (BHCPF).
- Promoting public education on the benefits of health insurance.

Conceptual View on Health Information Management Professionals

HIM professionals bridge the gap between healthcare, technology, and administration. They collect, organize, analyze, and protect both digital and paper medical records to improve patient outcomes and operational efficiency. Their responsibilities include data governance, coding, auditing, and quality control in healthcare settings.

Advantages of HIM

- Improved diagnostic accuracy and reduced medical errors.
- Enhanced data security and compliance with privacy laws.
- Increased efficiency and reduced administrative costs.

Disadvantages of HIM

- Risk of data breaches and cyberattacks.
- High implementation and maintenance costs.
- Need for continuous staff training and adaptation to new technologies.

Theoretical Framework

HIM provides the foundation for data-driven healthcare delivery, ensuring that patient information is accurate, secure, and accessible. Similarly, the NHIA supports the achievement of Universal Health Coverage (UHC) by integrating financing and service delivery mechanisms across the nation.

Impact of Health Information Management on Service Delivery

- Quality of Care: Accurate records support timely, evidence-based decision-making.
- Efficiency: Automation reduces administrative burdens.
- Patient Outcomes: Better coordination of care leads to improved results.
- Challenges: High costs, privacy risks, and inadequate training remain barriers.

Relevance of Health Information Management Professionals

HIM professionals enhance operational efficiency, promote regulatory compliance, support clinical research, and advocate for patient rights through accurate and secure data management.

Impact of NHIA on Service Delivery

The NHIA enhances healthcare access, affordability, and quality by:

- Expanding coverage, especially among vulnerable groups.
- Reducing financial hardship due to medical costs.
- Promoting service quality through accreditation and supervision.

However, challenges such as low enrollment, reimbursement delays, and unequal access persist.

Relevance of the NHIA

The NHIA's relevance lies in its regulatory, supervisory, and developmental roles—promoting universal health coverage, managing funds, standardizing care, and ensuring equitable healthcare access nationwide.

Conceptual Model

The conceptual model illustrates how Health Information Management Professionals facilitate effective data management, insurance processing, and quality healthcare delivery within the NHIA framework. It maps out the relationship between HIM functions and the attainment of national healthcare accessibility, efficiency, and accountability.

Methodology

This research adopted a descriptive cross-sectional survey design to examine the role of HIM professionals in NHIA service delivery. The study population consisted of 125 health information professionals and healthcare providers at Specialist Hospital Sokoto. A stratified random sampling technique was employed, and data were collected through structured questionnaires. Out of 125 questionnaires distributed, 100 were returned and valid for analysis. Data were analyzed using frequency and percentage statistics, presented in tabular form.

This study adopts a descriptive cross-sectional survey design. This design is appropriate because it enables the researcher to collect data from a large number of participants at a single point in time, allowing for the examination of existing

relationships between variables without manipulating them. The design is particularly suitable for assessing the roles, challenges, and impacts of health information professionals on NHIA service delivery.

Population of the Study

The target population for this study comprises 125 healthcare providers and Health Information Management (HIM) professionals working in the Specialist Hospital, Sokoto State. This population was chosen because these professionals are directly involved in managing, processing, and utilizing health information systems linked to NHIA operations and service delivery.

Sample Size and Sampling Technique

A sample size of 125 participants was selected for the study, they representing the entire population. The sampling technique adopted is stratified random sampling. This method ensures adequate representation from the two major professional categories healthcare providers and Health Information Management professionals. Each stratum was proportionately represented to ensure balanced participation and eliminate bias in the data collection process.

Results

Section A: Demographic Information

Question	Category	Frequency	Percentage (%)
1. What is your role in the Specialist Hospital?	Health Information Professional	95	95%
	Healthcare Provider	2	2%
	Administrator	1	1%
	Other	2	2%
	Total	100	100%
2. How long have you worked in the Specialist Hospital?	Less than 1 year	20	20%
	1–2 years	25	25%
	2–5 years	21	21%
	More than 5 years	34	34%
	Total	100	100%
3. What is your highest level of education?	Diploma	69	69%
	Bachelor's Degree	19	19%
	Master's Degree	4	4%
	Doctorate	2	2%
	Others	6	6%
	Total	100	100%

Source: Field Survey, 2025

Interpretation:

The study revealed that 95% of respondents were health information professionals, while 2% were healthcare providers, and 1% administrators. Findings showed that 81% agreed that HIM professionals' involvement improved NHIA service delivery, and 80% reported increased patient satisfaction. Additionally, 73% of respondents indicated that HIM professionals were responsive to NHIA-related inquiries, and 65% believed their involvement reduced errors and discrepancies. Major challenges identified include inadequate training (44%), insufficient resources (22%), and poor infrastructure (13%).

Section C: Quality of Healthcare Services

Statement	Excellent	Good	Fair	Poor	Total (%)
11. Quality of NHIA healthcare services	26	56	13	5	100
Statement	Frequently	Occasionally	Rarely	Never	Total (%)
12. Frequency of data/billing errors	7	62	29	2	100
Statement	Very Confident	Somewhat Confident	Not Very Confident	Not Confident	Total (%)
13. Confidence in data and billing accuracy	23				

The majority of respondents (56%) rated the quality of healthcare services under NHIA as “Good,” while 26% rated it “Excellent.” Most respondents (62%) occasionally experienced data or billing errors, though a combined 73% expressed confidence in the accuracy of patient data and billing information.

4. Discussion

The findings of this study highlight the critical role HIM professionals play in improving NHIA service delivery. Their involvement ensures better data management, enhances efficiency, and promotes patient satisfaction. However, persistent challenges such as limited infrastructure, inadequate training, and insufficient administrative support hinder optimal performance. These findings align with previous studies emphasizing that health information management is a cornerstone of effective healthcare systems, particularly in developing countries.

Summary of Key Findings and Interpretation

Research Focus	Key Findings	
Familiarity with NHIA guidelines	87% of respondents agreed they were familiar with NHIA operational guidelines.	Health Information Management (HIM) professionals demonstrate strong awareness of NHIA operations, which enhances compliance and performance.
Role in improving data management	81% agreed that HIM professionals improve NHIA service delivery efficiency.	HIM involvement strengthens data accuracy, leading to better healthcare decision-making and accountability.
Impact on patient satisfaction	80% reported that HIM professionals positively influence patient satisfaction.	Effective record management and communication improve service quality and patient experience.
Responsiveness to NHIA-related inquiries	73% agreed HIM professionals are responsive to NHIA-related issues.	High responsiveness ensures timely claims processing and smooth coordination within health institutions.
Reduction in service errors	65% agreed HIM involvement reduces errors and discrepancies.	Strong data management and verification processes lower the risk of administrative and clinical mistakes.
Major challenges faced	44% cited inadequate training, 22% insufficient resources, and 13% poor infrastructure.	Institutional and technical limitations hinder the optimal performance of HIM professionals.

Source: Field Data, 2025.

Conclusion

This study concludes that Health Information Management professionals are indispensable in the implementation and operation of the National Health Insurance Authority. Their contribution to data accuracy, service efficiency, and patient satisfaction is vital to achieving universal health coverage in Nigeria. Strengthening HIM capacity, adopting electronic health records, and improving support systems will further enhance NHIA service delivery.

Recommendations

1. Enhance training and continuous professional development for HIM professionals.
2. Improve digital infrastructure for health data management and interoperability.
3. Strengthen collaboration between HIM professionals and clinical staff.
4. Ensure adequate funding and resource allocation for NHIA operations.
5. Develop policies to support data security, standardization, and compliance.

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