



Hospital management and healthcare service administration of ophthalmology in Nigeria: Narrative review

Emurotu E^{1,2*}, Otutu MO¹, Nwose EU¹

¹Department of Public and Community Health, Novena University Ogume, Nigeria

²Department of Optometry, Dennis Osadebay University, Asaba, Nigeria.

*Correspondence:

Dr. Edafe Emurotu. Department of Optometry, Faculty of Allied Medical Sciences, Dennis Osadebay University, Asaba, Nigeria. Email: murodaf01@gmail.com; edafe.emurotu@dou.edu.ng; Tel: +2348035957196

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Abstract

Background: Health Systems Management (HSM) is the bedrock of clinical efficacy, encompassing the strategic leadership and administrative oversight required to align departmental functions with institutional goals. According to the World Health Organization (WHO), effective HSM ensures that human resources are optimized and that fiscal and material assets are utilized synergistically to achieve national developmental milestones. In the context of eyecare in Nigeria, administrative efficiency is the primary determinant of service accessibility and the prevention of avoidable blindness.

Methodology: This study employed a narrative review of the Nigerian healthcare management architecture. A comprehensive search was conducted via PubMed, Google Scholar, and the Mendeley Reference Library, synthesizing evidence from Nigeria, Sub-Saharan Africa, and global benchmarks. The analysis focused on the structural barriers within hospital networks and the integration of ophthalmic services into the broader healthcare framework.

Findings: The review identifies the consistent exclusion of the private sector, a primary service provider, from national health strategic planning and the stalled integration of Primary Eye Care (PEC) into the Primary Healthcare (PHC) structure. This systemic void has fostered a reliance on detrimental traditional practices such as couching, which exacerbates the prevalence of irreversible blindness.

Conclusion/Recommendation: The review concludes that the administrative integration of eye care services into the PHC level, supported by the strategic recruitment of qualified ophthalmic professionals, is essential for improving service availability and affordability. Beyond clinical outcomes, this transition is a socio-economic imperative. By restoring visual function, health systems management directly enhances human capital and labour market productivity, enabling individuals to regain their earning potential. Furthermore, reducing the severity of visual impairment significantly alleviates the economic dependency ratio and the psychological burden placed upon the visually impaired and their familial caregivers.

Keywords: Health Systems Management, Primary Eye Care (PEC), Primary Healthcare (PHC), Visual impairment, Economic Dependency Ratio.

Introduction

The leadership and overall management of hospitals, hospital networks, and/or health care systems is referred to as health systems management or health care systems management. The term describes management at all levels (WHO, 2009). In the United States, "medical and health services management," "healthcare management," or "health administration" are terms also used to describe the management of a single institution, such as a hospital (BLS, 2013).

In a health facility, health systems management makes sure that certain goals are met, departments function properly, the right people are in the right jobs, people understand their responsibilities, resources are used effectively, and departments work toward a common objective for growth and development. The primary duties of hospital management include creating the hospital's vision, putting policies into place, managing strategic activities, and keeping an eye on the organization's overall performance. Hospital management is concerned with the overall strategic direction, efficiency, and goal setting of a healthcare facility, whereas healthcare service administration handles the day-to-day operational aspects, such as staffing, patient services, and compliance. In contrast, healthcare service administration is concerned with the daily operations of the healthcare facility, guaranteeing effective and superior healthcare delivery. Healthcare administrators oversee managing staff, patient services, compliance, and facility operations. Examples of Healthcare Service Administration include hiring and training staff, processing insurance claims, keeping an eye on legal compliance, and managing medical records. (Buchbinder & Shanks, 2012; Fried & Fottler, 2002).

Leaders and managers must acknowledge and prioritize patient and staff safety to provide patients with safe, high-quality eye care and to foster a positive attitude about providing treatment. Management plays a crucial role in guaranteeing patient safety and safety programs for eye care, this area is often undermined. Establishing an atmosphere that shields patients and employees from preventable injury and lowers errors in clinical settings is the responsibility of health care leadership and management. (Rasiah, Ravilla and Ravilla., 2021).

Objectives of review

This essay examines Nigeria's healthcare administration systems, their challenges, and how they affect medical care. Assessing the efficiency of healthcare delivery at the federal, state,

and local levels and emphasizing the development of capacity in areas including workforce development, healthcare funding, and service delivery models to improve equity and resilience.

Materials and Methods

This study employed a narrative review design to synthesize existing evidence on hospital management and healthcare service administration. A total of sixty (60) published literatures were first found by methodically searching electronic resources such as Mendeley Reference Library, PubMed, Google Scholar, and African Journals Online. Manual searches of pertinent studies' reference lists yielded more articles. hospital management, healthcare service administration, eyecare, ophthalmology, optometry were among the search phrases. Boolean operators such as “AND” and “OR” were applied to refine search outcomes.

Peer-reviewed journal publications, books, and national or international health frameworks published in English that specifically addressed hospital management and healthcare service administration were among the inclusion criteria. Research published within the last five years were given preference to ensure relevancy. Researches from low- and middle-income nations, including Nigeria and sub-Saharan Africa, were given priority.

Exclusion criteria included duplicate publications, opinion pieces without empirical or policy relevance. Following title and abstract screening, 43 articles were shortlisted, and full-text review resulted in 32 studies being included in the final review.

Results and Discussion

Management of Health Services Organizations

The ways in which health services are structured are varied, yet they yield similar results. From extensively depending on hospitals to providing services mostly at primary care centers and/or through community health workers, from being closely managed at the central level to being highly decentralized, and from being primarily served by the government to being primarily run by private organizations (Kasper., 2022).

Most nations have decentralized and centralized components that coexist and are typically a part of a larger framework for political economy and government. Decentralization initiatives that aim to enhance health outcomes are successful when they increase organizational capacity

to exercise newly acquired decision-making authority and guarantee strong accountability frameworks. There is no ideal model of care; the best ones are flexible and change to meet changing epidemiological patterns, new threats like pandemics, and climate change. The private sector comprises a diverse set of actors that are essential to providing health services but are frequently unjustly overlooked in public policy and planning efforts (Kasper., 2022).

Decentralization

One of the most important decisions about a health system is where to position the decision-making authority: should it be at the local level or should it be centralized at the national level? Decentralization in a health system impacts many aspects and is rarely a shift that is solely focused on service delivery. Over 80% of countries globally are thought to have undergone some organizational reform in the last four decades, with the process of moving decision-making power from higher to lower levels of government (Fox and Dwicaksono., 2018).

The application of the decentralization concept, which originated in public administration, has not always been simple in the context of public health. Decentralization encompasses a vast array of activities, and the term can conceal as much as it discloses. In her groundbreaking work on the topic, Anne Mills states that "[de]centralization is therefore not only an important theme in health management but also a confused one" (Mills et al., 1990).

Decentralization's form and scope

Four primary types of decentralization exist as described in Fig 1;

- (i). *Deconcentration*: Transferring decision-making authority, usually within the bounds of current legislation, from higher to lower levels of a government entity, for example, from Ministry of Health officials in a major city to ministry officials situated in regional centers. The central government continues to be the officials' ultimate boss.
- (ii). *Delegation*: Transferring power from a central organization to a self-governing body, which may be a hospital corporation, a public-private partnership, or an "authority" with its board of directors. Universities and teaching hospitals, for example, usually have leeway in making decisions.

(iii). *Devolution*: transferring decision-making power from the federal government to state, local, and local governments (such as districts and provinces) with significant autonomy.

(iv). *Privatization*: giving a private organization—which may be for-profit or not-for-profit—ownership and accountability in place of the government. Thinking of a health system as either centralized or decentralized is rarely helpful due to these disparate characteristics of decentralization. Most systems, on the other hand, fall somewhere in the middle, with many different combinations of functions handled at different levels. The national government is still in charge of formulating policies, but decentralized areas like service delivery and human resource management are possible (Adhikari, Mishra, and Schwarz., 2022).

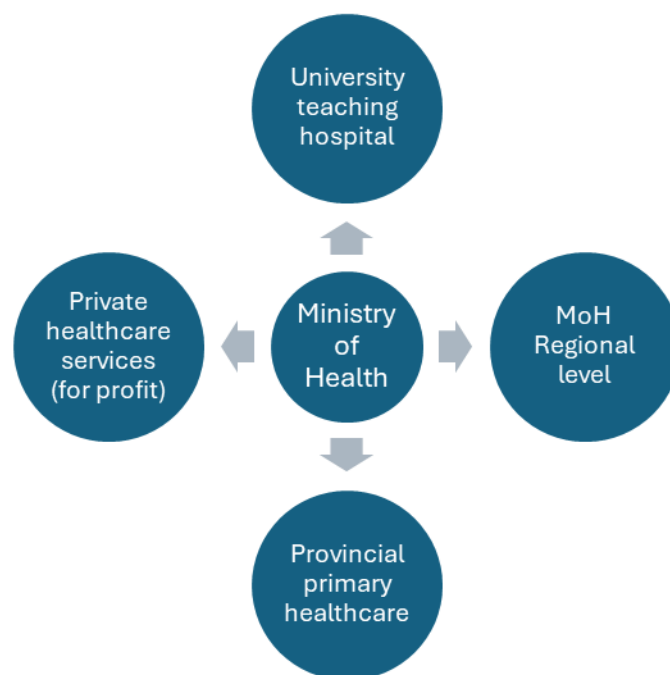


Fig1: Forms of decentralization that can impact the organization and management of health services (Kasper., 2022).

Management of Health Services Organizations in Ophthalmology

The global initiative VISION 2020: The Right to Sight states that eye care accounts for 25% of the infrastructure now in place, whereas the desired target is 90%. By implementing modern technologies and professional management practices in clinical services, many providers can

improve services which in turn improve target utilization. Four main areas that need attention of eye care providers are marketing, financial sustainability, quality management, and human resources management. These are necessary for strategic management to improve an organization's efficiency (Sivakumar., 2006).

(i). *Human Resources Management*: These days, employees are an organization's greatest assets and key to its success. Since employees are an organization's important pillar, organizations must therefore invest in them. To the pleasure and benefit of the citizens, personnel policy—which covers everything from retirement benefits to human resource planning—needs to be revised. A customer can only be satisfied by a happy staff. The cornerstone of quality is HRM. Successful businesses respect their employees by referring to them as internal customers or service partners. Continuous training, development, and empowerment are essential components of human resource management. (Sivakumar., 2006).

(ii). *Quality Management*: Health care has become more consumer driven and these are the patients. They search for the best services at the at the most competitive price, inquire about treatments, seek additional information, insist on convenience, want proof of quality, anticipate continuity of care, and investigate alternative therapies. Promptness, precision, accessibility, and continuity of service are examples of quality dimensions that are important in quality management (Bridges et al, 2008).

(iii). *Marketing*: Most people are unaware of where affordable, high-quality care can be found. Consumers can be misled by vested interest groups because professionals are reluctant to use marketing as a potent information tool (Taylor et al, 2016). For people to make informed decisions while seeking treatment, it is crucial to know how to best inform them about the options. Long-term planning should prioritize a thorough examination of the environment, with a focus on consumer behavior (Taylor et al, 2016). Most businesses do not gather data about their customers and information gathered is often demographic. Information about awareness, perception, preference, and usage is rarely seen. Organizations must comprehend the thoughts, feelings, behaviors, and perceptions of patients. Reliable information and referral resources ought to be accessible. Strategies to improve the referral system include quarterly newsletters and continuing medical education for general practitioners (Purcărea., 2019).

(iv). *Financial Sustainability*: The rapid improvement of technology and rising staff demands have resulted in increasing expenses for health care organizations, regardless of the consumer's

financial capacity. Health care delivery requires a lot of labor, and employee salaries account for a significant portion of operating expenses. Western standards are blindly adopted by healthcare administrators which raise costs without ensuring quality. Advanced diagnostic imaging (e.g., MRI, CT scanners) and specialized equipment are frequently procured without sufficient infrastructure, trained personnel, or maintenance capacity, resulting in underutilization and high operational costs. Over 90% of advanced medical devices in Africa are imported, increasing dependency and exposure to currency fluctuations (Kamara et al, 2024). Controlling spending is crucial to meeting financial obligations because the resources produced are somewhat limited.

Mode of Administration

Researchers have linked the Nigerian health sector's poor performance to a number of issues, including internal and international health worker migration, a lack of skilled medical personnel, poor human resources planning and management practices, a lack of infrastructure in rural areas, low compensation packages, and a lack of mass education on family planning, environmental sanitation, and personal hygiene (Abdulraheem et al., 2012). Nigerian healthcare issues, however, are complex and stem from several sociocultural, political, and economic elements in addition to inadequate planning and/or execution of health policies and initiatives.

Healthcare workers' strikes in Nigeria continue to disrupt public health services, with recent industrial actions in 2025 and 2026 severely affecting hospital operations nationwide. The Joint Health Sector Unions (JOHESU) and the Nigerian Association of Resident Doctors (NARD) have engaged in prolonged strikes over unresolved welfare issues, including the non-implementation of the Consolidated Health Salary Structure (CONHESS), unpaid hazard allowances, and poor working conditions (Albert et al., 2023). These strikes have led to the closure of federal and state hospitals, severely limiting access to essential care and increasing patient mortality.

The systemic causes of these strikes include poor leadership, inadequate healthcare management, salary disputes, and government failure to implement negotiated agreements (Oleribe et al., 2018). Studies show that industrial actions result in disrupted service delivery, increased morbidity and mortality, and a loss of public confidence in the healthcare system. Despite repeated strikes, long-term solutions remain unimplemented, perpetuating a cycle of industrial unrest.

Recent studies highlight that integrating software and health information technologies (HIT) into healthcare systems improves patient access, workflow efficiency, and clinical outcomes, but challenges remain in implementation. Hospital Information Systems (HIS) and Electronic Health Records (EHRs) enhance data accuracy, reduce medication errors, support clinical decision-making, and improve patient safety and care quality (Alharbi, 2025; Aina et al., 2025). However, successful integration depends on adequate training, user-friendly design, leadership engagement, and robust infrastructure.

Key challenges include poor interoperability, data silos, high costs, resistance from healthcare workers, and inadequate digital literacy (Alharbi, 2025; Aina et al., 2025). In Nigeria, despite growing adoption of mHealth, telemedicine, and EHRs, inconsistent usage persists due to unreliable power supply, internet connectivity issues, and lack of institutional support (Aina et al., 2025; Banjo, 2025).

Nigerian Healthcare System

Nigeria has a federal system of government with three levels: the federal government, state governments, and local governments. There is a clear role for private healthcare providers in the delivery of healthcare. According to Uzochukwu et al. (2015), there has been a notable surge in the utilization of complementary and alternative medicine and traditional medicine in recent years.

In terms of Universal Health C (overage UHC), Nigeria continues to face significant challenges in achieving it with persistent underfunding and heavy reliance on out-of-pocket (OOP) payments. As of 2019, government health expenditure remained below 1% of GDP, far short of the 4–5% recommended for UHC, and public spending accounted for only 15–20% of total health expenditure (Adeoye et al., 2023). In contrast, private expenditure constitutes 70–75%, with OOP payments making up over 90% of private spending and rising from 60.2% in 2000 to 70.5% in 2019 (Adeoye et al., 2023). Despite the 2001 Abuja Declaration's commitment to allocate 15% of the national budget to health, Nigeria has consistently fallen short, with health receiving less than 5% of the annual budget (Adeoye et al., 2023; Edeh, 2022). The National Health Insurance Scheme (NHIS) covers only a small fraction of the population, leaving over 90% without financial protection and vulnerable to catastrophic health expenditures (Edeh, 2022). These structural gaps perpetuate inequities and hinder progress toward UHC.

Primary Healthcare System and Eyecare

Primary health care (PHC) facilities in Nigeria remain largely non-functional, with persistent gaps in infrastructure, staffing, and service delivery. Eye care is still not integrated into PHC despite its high burden, contributing to widespread avoidable blindness. A 2021 study in Anambra State found that 85% of PHC facilities had no medications for eye conditions, and less than 10% offered any eye care services, with no facility recording eye-related cases in their patient registers (Aghaji et al., 2021). Critical diagnostic tools like visual acuity charts and functional torches were absent in most facilities, undermining early detection and referral.

Cataract remains a leading cause of blindness, and couching—despite being known to cause severe visual impairment—is still practiced, with historical data showing up to 18% couching coverage in some rural areas (Rabiu et al., 2001). Limited access to surgical services, high costs, and poor awareness continue to drive patients toward traditional methods. Although outreach programs have improved access temporarily, sustainable integration of primary eye care (PEC) into PHC is lacking, hampered by weak governance, inadequate training, and absence of PEC-specific policies (Aghaji et al., 2021).

Community health workers show willingness to deliver PEC, but systemic challenges—including staff shortages (82% of facilities operate with less than 20% of recommended staffing) and poor supervision—limit effectiveness (Aghaji et al., 2021). Without formal inclusion of eye care in PHC policy and routine data systems, progress toward universal eye health remains stalled.

Importance of PEC Integration into PHC

Access to eye care in Nigeria remains severely limited, particularly in rural areas, due to a critical shortage of eye care professionals and systemic inequities. Most ophthalmologists and optometrists are concentrated in urban centers, leaving rural populations underserved despite comprising over 70% of the population (Atuanya et al., 2024). A 2024 study found that 81.3% of optometry students were unwilling to establish their first practice in rural areas, citing poor living conditions and lack of infrastructure (Atuanya et al., 2024). This maldistribution forces rural residents to travel long distances and queue for hours at under-resourced government hospitals, where services are often overstretched.

Many patients, especially the poor, cannot access private eye clinics due to high costs and instead resort to self-medication or traditional practices like couching, a harmful, vision-threatening procedure still prevalent in some regions. Although free or subsidized cataract surgeries are available, uptake remains low due to lack of awareness, cultural beliefs, and logistical barriers (Anthony et al., 2025). Out-of-pocket payments and inadequate insurance coverage further limit access, pushing vulnerable populations toward irreversible visual impairment.

Integrating eye care into primary health care (PHC) in Nigeria is essential to address the high burden of preventable blindness and visual impairment. Over 84% of vision loss in Nigeria is avoidable, yet access to eye care remains limited, with less than 10% of PHC facilities offering eye services and 85% lacking basic eye medications (Aghaji et al., 2021). The World Health Organization recommends integrating eye care into PHC to improve access, particularly in rural areas where most specialists are absent. Recent evidence shows that structured integration—supported by training, equipment, and supply chains—can significantly reduce visual impairment. For example, a decade-long program in Sokoto State increased cataract surgical coverage sevenfold and reduced overall blindness prevalence from 2.0% in 2005 to 0.75% by 2016 (Muhammad et al., 2019).

Roles of Non-Governmental Organizations (NGOs) on PEC in Nigeria

The landscape of eye care in Nigeria has been significantly shaped by a health system strengthening approach, spearheaded by partnerships between the government and NGOs such as Sightsavers and Christian Blind Mission (CBM). These initiatives focus on decentralizing care by utilizing Primary Health Care (PHC) centers to provide cataract, glaucoma, and trichiasis services in rural communities. By integrating Primary Eye Care (PEC) into the broader health framework, programs in states like Sokoto, Kwara, Kaduna, and Zamfara have demonstrated that localized access where at least one clinic serves a cluster of districts can significantly lower the prevalence of avoidable blindness (Aghaji et al., 2018; Muhammad & Adamu, 2014).

While targeted interventions have yielded success, the national burden of visual impairment in Nigeria remains a significant public health and developmental crisis. Recent estimates indicate a prevalence of blindness between 0.42% and 0.50%, with unoperated cataract and uncorrected

refractive errors persisting as the primary drivers of avoidable vision loss (Kyari et al., 2009; Aghaji and Gilbert., 2021).

Addressing this burden is no longer viewed solely through a clinical lens but as a critical socio-economic imperative. Restoring sight acts as a catalyst for human capital recovery; it directly correlates with improved labour market participation and the restoration of an individual's earning potential, which are essential for social mobility in developing economies (Marques et al., 2022). Conversely, the failure to address visual impairment entrenches a high economic dependency ratio. This doesn't only affect the patient but creates a 'caregiver's trap,' placing an immense psychological and financial strain on families and reducing the overall household productivity (Kyari et al., 2009; Marques et al., 2021). Sustainable eye care integration requires active government involvement in policy, planning, and financing, rather than reliance on NGO-led initiatives alone (Aghaji et al, 2018).

Health workforce funding and training at PHC

PHC staffing policies recommend that the PHC management team create a sustainable system for continuous PHC staff capacity building, that each type of PHC facility has a minimum number, mix, and skill set, and that cadres of workers provide services based on their competencies. If the government fully implements these policies, there will be sustainable funding available to build the capacity of PHC workers who are qualified to provide a variety of health services, such as mental health, oral health, eye health, and maternal and child health. Human resource policy at the PHC level emphasizes in-service training. For PHC employees, in-service training in eye care is also recommended by the Nigeria National Eye Health Strategic Plan. A more successful strategy, among others, would be to incorporate eye care into the pre-service training of all pertinent PHC employees (doctor, nurse, midwife, and community health extension workers), perhaps as part of training on non-communicable illnesses or elderly care (Aghaji et al., 2021).

Pre-service training in eye care is more cost-effective and sustainable than in-service training, as it integrates eye health into the core responsibilities of primary health care (PHC) workers rather than treating it as an additional duty. Rwanda successfully implemented this approach by incorporating primary eye care (PEC) into the national nursing curriculum, training over 2,797 nurses and screening 2.4 million people between 2016 and 2021. This model ensures a steady supply of skilled personnel and improves service coverage and quality. Refresher in-service

training and supervision further sustain competencies. Similar integration in Bangladesh has also improved child eye health outcomes (Yip et al, 2018).

Conclusion

The integration of eye care into Nigeria's primary health care (PHC) system is essential to address the high burden of avoidable blindness (0.78%), yet it remains underdeveloped. Despite policy advances like the 2022 National Eye Health Policy and the inclusion of eye care in the revised PHC curriculum by the National Primary Health Care Development Agency (NPHCDA), implementation is weak. PHC facilities lack basic eye care equipment, standardized training, and consistent supervision, with only 42% of workers able to use visual acuity charts and less than 10% offering eye services.

This review highlights the fact that the recruitment and strategic distribution of the ophthalmic workforce remain the most significant administrative bottlenecks. To achieve the goals of the 2024-2028 National Eye Health Strategic Development Plan, health administration must prioritize the recruitment of multidisciplinary teams comprising Ophthalmologists, Optometrists, and Ophthalmic Nurses while implementing robust retention incentives for rural postings. The adoption of a structured task-shifting framework, where community health workers are empowered to handle primary screenings under the supervision of specialized professionals, is essential to optimizing the current human resource capacity.

The advancement of eye care in Nigeria requires commitment in political will to fund PHC-level integration, administrative rigor in professional recruitment and task-shifting, and a socio-economic perspective that views vision restoration as a pillar of national development. Only through such a holistic administrative approach can Nigeria transition from a high economic dependency ratio toward a future of visual health and social mobility for all its citizens,

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