

WORKFORCE PLANNING AND HEALTHCARE SERVICE DELIVERY IN LAGOS UNIVERSITY TEACHING HOSPITAL

Oluwabusayo Olanrewaju Oni^a, Adekunle Olusegun Falola^b

^{a,b}University of Lagos

Corresponding author: oooni@unilag.edu.ng, segunfalola9@gmail.com

Abstract

Workforce planning is a critical strategy for enhancing healthcare service delivery, particularly in teaching hospitals. This study investigated the effect of workforce planning on healthcare service delivery at Lagos University Teaching Hospital (LUTH). A cross-sectional research design and a quantitative approach were adopted, with primary data collected using a structured questionnaire administered to 326 respondents from various departments within the hospital. Regression analysis conducted through the Statistical Package for the Social Sciences (SPSS) was used to test the research hypothesis. The findings revealed a significant effect of workforce planning on healthcare service delivery ($F = 29.424$, $p = 0.000$; $Beta = 0.289$). Despite the limitations of the study, the empirical findings contribute to the understanding of workforce management strategies in healthcare environments. The study underscores the necessity for teaching hospitals to adopt comprehensive workforce planning practices to meet evolving healthcare demands and ensure optimal service delivery.

Keywords: Workforce Planning, Healthcare Service Delivery, Teaching Hospital, Lagos University Teaching Hospital, Strategic HR Practices

1. INTRODUCTION

The healthcare sector is a fundamental pillar of society, dedicated to safeguarding the health and well-being of individuals and communities. Within this system, teaching hospitals serve as critical institutions for providing specialized medical care, training healthcare professionals, and advancing medical research (Abubakar, 2023). However, an enduring challenge in healthcare institutions is the effective management of human resources to meet the increasing demand for quality healthcare services (Zhu et al., 2024). As such, workforce planning emerges as a crucial strategy in ensuring efficiency and effectiveness in healthcare service delivery.

Teaching hospitals, particularly in highly populated cities such as Lagos, Nigeria, play a central role in public health by offering specialized treatment, medical education, and research opportunities (Mosadeqrad, 2004). Nevertheless, these institutions often struggle to maintain optimal healthcare service delivery due to persistent workforce planning inefficiencies (Zhu, Zheng, Tang, & Zhong., 2024). These inefficiencies not only contribute to shortages in medical personnel and essential equipment but also exacerbate operational bottlenecks, ultimately compromising the quality of patient care (Safarani, Ravaghi, Raeissi, & Maleki, 2018).

Workforce planning, also known as manpower or human resource planning, is an ongoing process. It ensures that organizations have the right number of employees with the required skills, assigned to appropriate roles at the right time. It encompasses the collective expertise, skills, and knowledge available within an organization, institution, or nation (Akinpelu, 2018). Akata (2016) defines workforce planning as a systematic approach to determining and securing a sufficient number of skilled personnel, ensuring that they are positioned to meet organizational objectives while also achieving job satisfaction.

The ability of teaching hospitals to deliver high-quality healthcare services is largely contingent upon the availability, competence, and effective management of their healthcare workforce. Despite their strategic role in healthcare provision and professional training, these institutions frequently grapple with challenges such as shortages of skilled personnel, inefficient staff allocation, high turnover rates, and insufficient opportunities for continuous professional development (Figuerola et al., 2019). These issues negatively impact patient care and overall service delivery efficiency.

Moreover, factors such as rapid population growth, shifting epidemiological trends, and advancements in medical technology have heightened the demand for healthcare services, making strategic workforce planning even more imperative. Poor workforce planning can result in prolonged patient waiting times, suboptimal patient outcomes, and decreased staff morale. To mitigate these challenges, effective workforce planning requires robust data collection, accurate forecasting, and the formulation of policies that enhance staff retention, promote continuous professional development, and ensure the equitable distribution of healthcare personnel (Centre for Workforce Intelligence, 2014). Furthermore, fostering collaboration among hospital administrators, policymakers, and other key stakeholders is essential for designing and implementing workforce strategies that align with broader healthcare delivery goals.

Despite the recognized significance of workforce planning in optimizing healthcare service delivery, there is limited empirical evidence on how workforce planning strategies are executed in

teaching hospitals in Lagos State and their direct impact on service delivery outcomes. This study aims to fill this gap by investigating the effect of workforce planning and healthcare service delivery at Lagos University Teaching Hospital (LUTH), providing data-driven insights to guide workforce management practices. The objective of this study therefore is to examine the effect of workforce planning on healthcare service delivery in Lagos University Teaching Hospital.

2.0 LITERATURE REVIEW

Workforce planning and health service delivery are critical elements of effective healthcare systems, particularly in teaching hospitals. As centers of both patient care and academic training, teaching hospitals face unique challenges and opportunities in aligning human resource strategies with service delivery objectives. This section explores the key themes, theoretical review, and empirical review of literature related to the relationship between workforce planning and healthcare service delivery in teaching hospitals.

2.1 Workforce Planning

Workforce planning is a fundamental aspect of organizational management. It entails recognizing the human potential, skills, and capabilities within an organization with the aim of achieving goals, enhancing productivity, and fostering development (Dalvi, 2017). Serving as the initial stage in the human resource management process, human resource planning ensures that the organization possesses the right number of competent individuals positioned appropriately and in a timely manner to efficiently carry out tasks, thereby fostering in the attainment of organizational objectives (Vineeth, 2019). This process guarantees the availability of the requisite workforce to accomplish organizational goals and is known by various terms such as personnel planning, manpower planning, labor planning, and employment planning, representing an integral component of organizational planning (Dalvi, 2017).

Workforce planning entails forecasting an organization's future personnel needs, aligning recruitment efforts with its strategic goals, and enhancing service delivery (Opoku-Mensah, 2012). According to Bulla and Scott (1994), workforce planning functions as a strategic HR management tool, ensuring that the organization has the right talent in place to achieve its long-term objectives. It includes predicting future staffing needs, evaluating the current workforce, and devising strategies for hiring or reducing staff as necessary.

The positive influence of workforce planning on business growth is widely recognized. According to Mangwengwende, Chinzara, and Nel (2011), effective workforce planning drives higher performance across various organizational departments by fostering efficient talent development. They further noted that human resource professionals could help managers address minor issues early through well-implemented workforce planning.

Workforce planning has significantly contributed to the growth and success of numerous organizations. According to Nel et al. (2011), effective workforce planning facilitates the swift replacement of skills, enabling organizations to maintain seamless operations. They further asserted that by implementing workforce planning effectively, HR professionals can alert managers to potential issues early, preventing them from escalating into more serious problems.

2.2 Healthcare Service Delivery

The World Health Organization (WHO) defines healthcare service delivery as encompassing all healthcare systems, individuals, and actions aimed at promoting, restoring, or maintaining health (WHO, 2018). Mosadeghrad (2014) emphasized that it involves healthcare professionals consistently delivering cost-effective services aligned with clinical guidelines and standards to ensure patient satisfaction. Although there is no universally agreed-upon definition of effective healthcare service delivery, its assessment largely involves cognitive evaluation. This entails a thorough examination of processes and structures, including healthcare providers' professional skills, communication abilities, patient trust, the likelihood of extended wait times due to appointments, emergency care services, and the availability of hospital facilities and other essential resources (Appiah, 2019).

Effective service delivery aims to meet the expectations of the end user. While the term "product" often refers to tangible items, it also encompasses services. The direct interaction between a service provider and its customers is crucial for creating a satisfactory relationship and meeting expectations. Grönroos and Ravald (2011) assert that delivering high-quality services is essential for service providers who seek to generate and deliver value to their customers.

In everyday life, people seek out the services they need. Agba et al. (2013) suggest that effective healthcare service delivery is a key way to bring good health closer to people at the grassroots level, ensuring that these services are satisfactory, efficient, effective, and adequate. Despite numerous plans and substantial investments of both international and domestic resources, Leni et al. (2012) note that healthcare service delivery systems in many developing countries continue to fail.

Healthcare in Nigeria is managed by both private and public sectors. The Federal and State governments have the authority to establish hospitals and other health facilities. The effectiveness of healthcare delivery typically depends on the quality, accessibility, and affordability of the services provided. In Nigeria, quality healthcare is not considered a fundamental human right. Instead, it is included in the Fundamental Objectives and Directive Principles of State Policy. This means that while quality healthcare cannot be legally enforced in court, it is still the responsibility of the government to provide quality healthcare services to its citizens.

A healthcare delivery system encompasses all the resources that a population or society allocates for organizing and providing health services. This includes both personal and public services carried out by individuals or institutions aimed at maintaining or restoring health (Stanhope, & Lancaster, 2001). Ensuring quality healthcare service delivery is the responsibility of all staff working in the hospital. They are tasked with ensuring patient satisfaction and collectively fulfilling patient needs. From an HR standpoint, different practices and policies are necessary because they contribute distinct elements to the service value chain (Stanhope, & Lancaster, 2001).

2.3 Theoretical Framework of the study

The significance of a theoretical framework in research is immense. A theory represents a logically derived statement comprising interconnected concepts from which testable hypotheses can be

formulated. This study is grounded in the Perpetual Human Resource Management Theory and the Resource-Based View (RBV) theory.

2.3.1 Perpetual Human Resource Management Theory

The Perpetual Human Resource Management Theory was developed by Obisi in 2023 to offer a more comprehensive and sustainable approach to understanding HRM. Obisi (2023) argued that existing HRM theories are narrow and focus only on specific aspects rather than addressing the full spectrum of HRM issues. The Perpetual Excellence Theory (PET) provides a holistic, multipurpose framework. The theory emphasizes that people are the most valuable resource for any organization at the micro level and for nations at the macro level. The success of both organizations and nations depends on the quality of their workforce. According to Obisi, (2023) machines and computers, despite being human creations, cannot replace human effort, as they rely on human input to function. Therefore, organizations that prioritize having a skilled and motivated workforce will always outperform those that focus solely on financial resources, as profits are generated by the efforts of people.

This theory is relevant to the study on Workforce Planning and Healthcare Service Delivery in Teaching Hospitals because PET highlights that no organization, including teaching hospitals, can rise above the quality of its workforce. In the healthcare context, skilled and motivated personnel such as doctors, nurses, administrative staff, and support teams are essential for delivering efficient and effective patient care. Workforce planning becomes critical in ensuring the availability of competent healthcare professionals to meet evolving patient needs.

2.3.2 Resource-Based View Theory

The Resource-Based View (RBV) theory, introduced by Barney in 1991, is a managerial framework aimed at maximizing the use of a firm's internal resources and capabilities to achieve organizational goals. The theory emphasizes that organizations gain sustainable competitive advantages through the effective acquisition, control, and utilization of resources. Grant (1991) explained that RBV helps describe, predict, and explain how organizations whether in manufacturing or service sectors leverage tangible and intangible resources that are valuable, rare, inimitable, and non-substitutable to enhance performance and maintain a competitive edge.

The theory underscores the critical role of human capital as a key resource for achieving competitive advantage. In the healthcare sector, where human resources are essential for ensuring timely and efficient patient care, efficient management of human resource is vital. By effectively managing and developing their workforce, healthcare organizations can strengthen logistics and supply chain operations, improving overall performance and patient outcomes.

The RBV theory is particularly relevant to this study as it highlights the importance of human resources as a critical component of teaching hospitals in driving healthcare service delivery. Here's how the RBV theory connects to workforce planning and healthcare service delivery and according to RBV, human capital is one of the most valuable resources for any organization. In teaching hospitals, healthcare professionals, such as doctors, nurses, and administrative staff, possess specialized knowledge and skills essential for delivering high-quality patient care.

Effective workforce planning ensures the right mix of skilled professionals is available to meet healthcare demands

2.4 Review of Empirical Literature

Afzal et al. (2013) explored the role of human resource planning (HRP) in enhancing the performance of public institutions. The study revealed that inadequate forecasting of HR negatively affects organizational performance. Respondents highlighted issues such as insufficient management support, limited funding, and a lack of expertise as major challenges in HRP processes. The research concluded that effective HRP is positively correlated with institutional performance, while poor HRP leads to diminished outcomes.

Kiai, Lewa, and Karimi (2019) studied the impact of formal HR planning (HRP) on organizational performance in the telecommunications sector. Surveying HR managers across 50 offices, they found a strong link between HRP measures such as selection, training, and incentives—and performance indicators like job satisfaction, efficiency, and motivation. The study concluded that increased investment in modern HR practices enhances organizational performance.

Opoku-Mensah (2012) examined HRP and its impact on organizational effectiveness within the information services department. Results indicated that employees lacked adequate knowledge of HRP, and senior officers poorly implemented it. Nonetheless, the study emphasized that active recruitment and retention efforts remained central to organizational sustainability. Okpalla et al. (2022) conducted a qualitative review of Nigeria's emergency healthcare delivery system. The study highlighted persistent challenges in healthcare access despite numerous proposed strategies in the literature. It concluded that significant reforms are required to establish a functional emergency healthcare system capable of swift response during crises.

Tandika and Dominic (2022) examined the impact of strategic HRM (SHRM) practices on healthcare service quality in Tanzanian referral hospitals. Their quantitative study, involving 333 employees, found a strong correlation between SHRM and improved service dimensions like responsiveness and reliability. They emphasized SHRM's role in skill development and employee engagement. Similarly, Blštáková and Palenčárová (2021) reviewed HRM challenges in healthcare, highlighting the need for advanced HRM practices and formal HR training to enhance service quality.

2.5 Gap in Literature

A review of the existing literature reveals a significant gap in empirical research on the implementation of workforce planning strategies and their direct impact on healthcare service delivery in teaching hospitals in Nigeria. Although several studies (Afzal et al., 2013; Kiai, Lewa, & Karimi, 2019) have examined workforce planning in organizational contexts, there is limited empirical evidence focusing on the healthcare sector, particularly in developing countries like Nigeria. Existing research largely emphasizes general human resource management practices without delving into how structured workforce planning influences critical service delivery outcomes such as patient care, staff efficiency, and operational effectiveness in teaching hospitals.

Additionally, much of the literature (e.g., Mosadeghrad, 2014; Figueroa et al., 2019) discusses workforce challenges and their implications for service quality but fails to provide practical

frameworks for improving workforce planning in resource-constrained environments. Furthermore, while studies in other regions (e.g., Tandika & Dominic, 2022) highlight the relationship between strategic human resource management and healthcare service quality, there is a lack of localized evidence from Nigerian teaching hospitals.

This study filled the gap by providing empirical evidence on how workforce planning affects healthcare service delivery in a Nigerian context, providing holistic understanding of how workforce planning strategies affect healthcare delivery outcomes and finally by contributing robust statistical evidence to the literature on healthcare workforce management in developing economies. It is on this background the under listed hypothesis is formulated

2.6 Hypothesis of the Study

H₀: Workforce planning does not have significant effect on healthcare service delivery in Lagos University Teaching Hospital

3. METHODOLOGY

The study adopted a cross-sectional design to investigate the impact of workforce planning on healthcare service delivery at Lagos University Teaching Hospital by analyzing the opinions of a sample drawn from the study population within a specific time frame. The study was carried out at Lagos University Teaching Hospital, one of the two teaching hospitals located in Lagos State. The study population comprised 1,772 employees working in and with the hospital. However, a sample size of 326 was utilised for the study which was determined from the study population using Yamane's (1967) established formula.

The instrument utilised for the collection of data was a survey questionnaire which was most suitable for the study, as the respondents were literate enough to understand and attend to the questions objectively. Also, it enables the collection of accurate information from the respondents through an anonymity guarantee and with minimal time (Kumar, 2019).

The questionnaire was structured in two sections with the first section structured to obtain information on the respondents' socio-demographic attributes while the second section was structured to obtain information to address the study objectives. In structuring the questionnaire, all items were self-developed by the researcher based on a five point Likert scale ranging from strongly agree to strongly disagree.

The workforce planning construct was measured with nine items comprising future workforce forecast, clear understanding of the skills and competencies required for future roles, alignment of future workforce need with its long-term strategy, regularly reviews and updates of workforce plans, contingency plans for workforce shortages, employees being well informed about workforce planning initiatives, workforce planning being supported by accurate data and analytics, clear process or plan for replacing employees in key positions when they leave, flexibility of workforce planning to accommodate sudden changes.

The healthcare service delivery construct was measured with thirty-eight items sectioned into four different categories comprising of patient care services which is measured with items, maternal and child health services which is measured with nine items, emergence care which is measured with ten items and preventive services which is measured with nine items. The questionnaire was subjected to a validity test using content and face validity, as both can be applied easily (Kumar, 2019). The content validity was ensured by adequately structuring the questionnaire items to address each of the study objectives while the face validity was ensured through the review of the questionnaire items by two experts on the subject matter specifically from the Department of Employment Relations and Human Resource Management at the University of Lagos.

The logical connection of each questionnaire item to the study objective and the grammatical construction of the questionnaire were evaluated by the experts to ensure adequate measurement and comprehension by the respondents. The instrument test of reliability was achieved through a pilot test conducted in University of Lagos Medical Centre which was not part of the study area. The survey questionnaire was administered personally by the researcher, reliability and the responses obtained from the pilot test were analysed using the Cronbach Alpha reliability test through SPSS version 21 and the results obtained for each construct are presented in Table 1.

Table 1. Reliability of the measuring instrument employed in the study

Reliability Statistics		
Variables	Cronbach's Alpha	Items
Workforce Planning	.889	5
Patient care services	.825	5
Maternal and child health services	.911	5
Emergency care	.892	5
Preventive services	.738	5
All items on questionnaires: 25		Cronbach α 0.878

Source: Survey, 2025.

From Table 1, the outcome of the reliability test revealed a Cronbach Alpha result of 0.878 and above for each construct indicating that the instrument is reliable (Hargreaves & Mani, 2015). To further ascertain the adequacy of the sample and the suitability of the data for analyses, the Kaiser Meyer Olkin test and Bartlett's Sphericity test were conducted, and the results are presented in Table 2.

Table 2 Kaiser Meyer Olkin and Bartlett's test of Sphericity

Test	Scores
Sampling Adequacy	0.762
Sampling Adequacy:	
Approx. Chi-Square	715.645
Df.	171
Sig	0.000

Source: Survey, 2025

Table 2 shows a KMO value of 0.762 which exceeds the 0.6 requirement indicating that the sample is adequate (Hoque et al., 2018). Also, Bartlett's Sphericity test showed a significant value of 0.000 which is less than 0.05 indicating that the data is distributive and skewed and therefore suitable for analyses. The study utilised primary data which was obtained by physical administration of the questionnaire to the respondents by the researcher. In administering the questionnaire to the respondents, the consent of the respondents was obtained and the study focus was elucidated to the respondents and a guarantee of anonymity and confidentiality was given to the respondents in the introductory note of the questionnaire.

The study analyzed responses using frequency distribution and percentages for demographic data, while Pearson correlation tested the hypothesis. A key limitation was the narrow scope, as only one teaching hospital was surveyed using a structured questionnaire, which may introduce bias and limit respondents' ability to fully express their views. The study suggests future research should expand to multiple hospitals across different states and incorporate in-depth interviews for more comprehensive and generalizable findings.

4.0 ANALYSES AND RESULTS

This section presents the findings of the study, based on data collected through the administration of structured questionnaires. Out of 350 copies of the questionnaire distributed by the researcher, 330 were successfully retrieved, representing a response rate of 94.3%. However, four of the retrieved questionnaires were improperly completed and therefore excluded from the analysis, resulting in a total of 326 valid responses used for the study.

4.1 Demographic Characteristics of Respondents

The demographic data of the respondents were summarized and presented in tabular form in table 3. This information includes key variables such as age, gender, educational qualifications, job roles, and years of work experience. These demographic characteristics provide context for interpreting the study results and offer insights into the diversity of the sample.

Table 3 Demographic Information of the Respondents

Social and Demographic Information	Frequency (326)	Percent
Gender		
Male	155	52.5
Female	171	47.5
Age (Years)		
Below 30	76	23.3
30 to 39	74	22.7
40 to 49	118	36.2
50 and above	58	17.8
Marital Status		
Single	100	30.7
Married	226	69.3
Separated/Divorced	0	0.0
Widow/Widower	0	0.0
Highest Level of Education		
ND/Technical/NCE	30	9.2
Bachelor Degree/HND	211	64.7
Master Degree	60	18.4
PhD/Professor	25	7.7
Length of Service		
Below 5 years	123	37.7
5-9 years	48	14.7

10 – 15 years	92	28.2
15 years and Above	63	19.3
Monthly Salary		
₦ 100,000 to ₦ 200,000	60	18.4
₦ 201,000 to ₦ 250,000	124	38.0
₦ 251,000 to ₦ 300,000	72	22.1
Above ₦ 300,000	70	21.5
Department		
Account	17	5.2
Administrative	43	13.2
Consultancy	10	3.1
Data Programming	8	2.4
Doctor	53	16.3
Executive Officer	13	4.0
Health Technician	20	6.2
Human Resource	23	7.0
Laboratory Scientist	14	4.3
Nursing	33	10.1
Pharmacy	24	7.3
Physiotherapy	8	2.5
Procurement	17	5.2
Radiography	6	1.8
Social Welfare	10	3.1
Store	13	4.0

Technical Officer	5	1.5
-------------------	---	-----

Source: Survey, 2025

Out of the 326 respondents, 155 were male (52.5%) while 171 were female (47.5%). This near-balanced distribution indicates a fairly equitable gender representation, suggesting inclusivity in workforce roles at Lagos University Teaching Hospital (LUTH). Both genders are well-represented, showing that workforce planning at LUTH does not disproportionately favor one gender. The majority of respondents (36.2%) were aged between 40 and 49 years, indicating a workforce primarily composed of experienced professionals. However, there is also a significant proportion of younger staff, suggesting succession potential. Most respondents were married (69.3%), while 30.7% were single. No respondents indicated being separated, divorced, widowed, or widowers. The dominance of married respondents may indicate a stable workforce likely balancing personal and professional commitments.

A majority of respondents (64.7%) held Bachelor's degrees or HNDs, followed by those with Master's degrees (18.4%), ND/Technical/NCE qualifications (9.2%), and PhD/Professor qualifications (7.7%). The high percentage of Bachelor's and postgraduate degree holders suggests a highly educated workforce, supporting the hospital's capability to provide quality healthcare services. 123 respondents (37.7%) had served for less than 5 years, 48 (14.7%) between 5 to 9 years, 92 (28.2%) between 10 to 15 years, and 63 (19.3%) for more than 15 years. The substantial number of employees with less than 5 years of service indicates recent recruitment efforts, while the significant portion with over 10 years of experience contributes to institutional knowledge and service continuity.

Most respondents (38.0%) earned between ₦201,000 to ₦250,000, followed by those earning ₦251,000 to ₦300,000 (22.1%), above ₦300,000 (21.5%), and ₦100,000 to ₦200,000 (18.4%). The salary distribution indicates a concentration in the middle-income brackets, suggesting moderate compensation structures for staff. Respondents occupied diverse roles, including doctors (16.3%), administrative staff (13.2%), nursing (10.1%), human resources (7.0%), laboratory scientists (7.3%), and other health-related and support positions. The broad range of occupational categories highlights the multi-disciplinary nature of workforce planning at LUTH, ensuring comprehensive service delivery.

4.2 Descriptive Analysis of Responses

Table 4.3 Descriptive Analysis of Responses

Descriptive Statistics	M	SD	
Workforce Planning			
Forecasting future workforce needs	3.80	1.09	Moderately agreed, indicating the hospital considers future staffing but with some variability.
Understanding skills for future roles	4.04	0.92	Strong agreement suggests the hospital has a clear grasp of future skill needs, with low variability.

Alignment of forecasts with strategy	3.88	0.91	Moderately high alignment of workforce planning with the hospital's long-term strategy.
Regular review and updates of workforce plans	3.79	0.98	Moderate agreement, suggesting periodic workforce evaluations with slightly higher variability.
Contingency plans for workforce shortages	3.80	1.08	Moderate agreement that the hospital has contingency measures, although responses varied.
Patient Care Services			
Timely patient care	4.25	0.56	Strong agreement with low variability, indicating patients generally receive prompt attention.
Dignity and respect for patients	3.76	0.99	Moderate agreement with higher variability, suggesting inconsistent patient experiences.
Clear communication of treatment plans	3.92	1.03	Moderately high agreement, though responses vary somewhat.
Continuity of care during/after discharge	3.97	0.95	Consistent agreement on post-discharge care continuity.
Accessibility of patient care services	4.03	0.86	High agreement that care is accessible across diverse backgrounds.
Maternal And Child Health Services			
Care for expectant mothers	3.88	0.99	Moderate agreement that adequate maternal care is provided.
Education on prenatal/postnatal care	4.28	0.89	Strong agreement with low variability, indicating consistent educational support.
Well-equipped neonatal care unit	4.36	0.80	High agreement and low variability, suggesting robust neonatal care.
Timely childbirth interventions	4.24	0.81	Strong consensus on the promptness of emergency obstetric care.
Adequate immunization services	4.27	0.80	High agreement that the hospital provides comprehensive immunization.
Emergency Care			
Well-equipped emergency	4.23	0.80	Strong agreement, reflecting well-prepared emergency

department			facilities.
Skilled and experienced emergency staff	4.17	0.91	High agreement with moderate variability, suggesting general competence.
Immediate attention upon arrival	4.22	0.76	Consistent agreement that patients receive prompt attention.
Clear triage process	4.09	1.05	Moderate agreement with higher variability, implying some inconsistencies in triage practices.
Coordination for patient transfers	4.09	0.92	High agreement, indicating effective patient transitions within the hospital.
Preventive Services			
Regular screenings and check-ups	3.91	1.01	Moderate agreement with higher variability, suggesting inconsistency in preventive services.
Immunization for children and adults	4.32	1.04	Strong agreement, indicating a robust immunization program.
Counseling on healthy behaviors	4.29	0.70	High agreement and low variability, reflecting effective counseling practices.
Screenings for early disease detection	4.24	0.68	Consistent agreement on proactive health screenings.
Community outreach for preventive care	4.11	0.75	Moderate-to-high agreement, indicating active community engagement.

Source: Author's Computation, 2025.

4.3 Test of Hypothesis

The study hypothesis was tested using regression analysis and the result of the test is presented in table 4 and 5

Table 4:ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	14931.847	1	14931.847	29.424	.000 ^b
	Residual	163407.623	322	507.477		

	Total	178339.469	323			
--	-------	------------	-----	--	--	--

a. Dependent Variable: HSD

b. Predictors: (Constant), WFP

Table 5: Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	129.672	5.038		25.740	.000
	WFP	.762	.140	.289	5.424	.000
a. Dependent Variable: HSD						

Since the p-value (0.000) is less than the significance level of 0.05, the null hypothesis is rejected. This implies that workforce planning has a statistically significant effect on healthcare service delivery in Lagos University Teaching Hospital. The high F-value (29.424) further supports the strength of this relationship. The positive coefficient (0.762) implies that an increase in workforce planning positively influences healthcare service delivery. The high t-value (5.424) and p-value (0.000) further confirm the significance of this relationship. Thus, it can be concluded that workforce planning positively impacts the delivery of healthcare services at LUTH, potentially leading to improved operational efficiency and patient outcomes.

4.4 Discussion of Findings

The findings of this study reveal a statistically significant influence of workforce planning on healthcare service delivery at Lagos University Teaching Hospital (LUTH). The hypothesis test results indicated a p-value of 0.000, which is below the 0.05 threshold, confirming that workforce planning positively impacts healthcare service delivery. The standardized coefficient (Beta = 0.289) and high F-value (29.424) further support this conclusion.

The finding aligned with the study of Mangwengwende, Chinzara, and Nel (2011), who concluded that effective workforce planning enables organizations to enhance performance by developing and allocating talent strategically. Similarly, Kiai, Lewa, and Karimi (2019) found that human resource planning measures such as training and selection significantly contribute to job satisfaction and operational efficiency, which are critical elements in healthcare service delivery. Additionally, Mosadeghrad (2014) emphasized that maintaining service quality in healthcare requires adherence to clinical standards and consistent workforce management. The findings in this study support this notion by showing how strategic workforce planning at LUTH could improve patient care, reduce waiting times, and foster operational efficiency.

5. CONCLUSION AND RECOMMENDATIONS

This study concludes that workforce planning significantly influences healthcare service delivery at Lagos University Teaching Hospital (LUTH). The positive relationship found between workforce planning and service delivery underscores the importance of strategic human resource management in ensuring the availability of skilled professionals, improving operational efficiency, and responding effectively to the dynamic demands of healthcare services. These findings highlight the need for hospital management to adopt data-driven, forward-looking workforce planning approaches to address both present and future staffing requirements.

In light of the findings, it is recommended that LUTH management develop and implement comprehensive workforce planning strategies that align with organizational goals and healthcare demands. Regular training and development programs should also be prioritized to keep healthcare professionals abreast of new practices, medical innovations, and emerging health challenges. Additionally, the collection and analysis of accurate workforce data should be institutionalized to support evidence-based planning and informed decision-making regarding human resource allocation.

The practical implications of this study are valuable for both hospital administrators and policymakers. By emphasizing the need for efficient workforce planning, the study offers insights into reducing staff shortages, improving patient care, and enhancing hospital performance. These findings can also guide policy formulation aimed at improving staff retention, promoting equitable distribution of healthcare workers, and investing in continuous professional development. Moreover, the study advocates for the integration of modern HRM theories into healthcare management practices, thus improving the efficiency and responsiveness of public health institutions.

This study contributes to the existing body of knowledge by offering empirical evidence on workforce planning within a Nigerian healthcare context, specifically in a tertiary hospital. It extends the application of the Perpetual Human Resource Management Theory and the Resource-Based View (RBV) Theory to the healthcare sector, offering a practical framework for enhancing healthcare delivery through strategic workforce planning. These contributions are particularly significant for developing countries where healthcare systems face chronic resource constraints.

Despite the value of these findings, the study acknowledges certain limitations. For broader generalizability, future research could undertake a comparative analysis of workforce planning practices across multiple teaching hospitals in different states. Longitudinal studies may also be conducted to examine the sustained impact of workforce planning on healthcare delivery over time. Additionally, incorporating qualitative approaches such as interviews with healthcare administrators and frontline staff could provide deeper insights into the nuanced challenges and opportunities surrounding workforce planning in the healthcare sector.

References

- Abubakar, U. F. (2023). Quality service delivery by health information managers in Lagos University Teaching Hospital (LUTH), Idi-Araba, Lagos State. *International Journal of Library and Information Technology (IJLIT)*, 5, 39–47.
- Afzal, F., Mahmood, K., Sherazi, S. M. R., Sajid, M., & Hassan, M. (2013). Effect of human resource planning on organizational performance of the telecom sector. *Information and Knowledge Management*, 2, 173–182.
- Agba, M. S., Akwara, A. F., & Idu, A. (2013). Local government and social service delivery in Nigeria: A content analysis. *Academic Journals of Interdisciplinary Studies*, 2(2), 97–115.
- Akinpelu, A. (2017). *Workforce planning and strategies*: Study pack of the Chartered Institute of Personnel Management of Nigeria (2018 edition).
- Akata, G. (2016). Growing impact of human resource on the bottom-line. *Extract of the text of a paper presentation at the Chartered Institute of Personnel Management of Nigeria (CIPM) Induction Ceremony*. November 17, 2016, at the Civic Centre, Lagos.
- Appiah, K. (2019). *Patient satisfaction with waiting time at the outpatient department (OPD), Holy Family Hospital, Techiman* (Master's thesis, School of Public Health, College of Health Sciences, University of Ghana).
- Bartlett, M. S. (1954). A note on the multiplying factors for various chi-squared approximations. *Journal of the Royal Statistical Society: Series B (Methodological)*, 16(2), 296–298.
- Blštáková, J., & Palenčárová, J. (2021). Human resource management in healthcare. *SHS Web of Conferences*, 115, 133–123.
- Bulla, D. N., & Scott, P. M. (1994). *Manpower requirement forecasting*. Human Resources Planning Society. New York: Plenum Press.
- Centre for Workforce Intelligence. (2014). *Robust workforce planning framework: Update from practice*. London: CfWI.
- Dalvi, P. (2017). Human resource planning. *Economics Discussion*. Retrieved from <https://www.economicsdiscussion.net/human-resource-management/human-resourceplanning-definition-importance-objectives-process-prerequisites/31575>
- Figueroa, C. A., Harrison, R., Chauhan, A., & Meyer, L. (2019). Priorities and challenges for health leadership and workforce management globally: A rapid review. *BMC Health Service Research*, 19(239), 2–11. <https://doi.org/10.1186/s12913-019-4080-7>
- Grant, R. M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management Review*, Spring, 114–135.

- Grönroos, C., & Ravald, A. (2011). Service as business logic: Implications for value creation and marketing. *Journal of Service Management*, 22(1), 5–22.
- Hargreaves, C. A., & Mani, C. K. (2015). The selection of winning stocks using principal component analysis. *American Journal of Marketing Research*, 1(3), 183–188.
- Hoque, A. S. M. M., Siddiqui, B. A., Awang, Z. B., & Baharu, S. M. A. T. (2018). Exploratory factor analysis of entrepreneurial orientation in the context of Bangladeshi small and medium enterprises (SMEs). *European Journal of Management and Marketing Studies*, 3(2), 81–94. <https://doi.org/10.5281/zenodo.1292331>
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31–36. <https://doi.org/10.1007/BF02291575>
- Kiai, D., Lewa, P., & Karimi, J. (2019). Influence of human resource planning on the performance of firms listed in the Nairobi Securities Exchange in Kenya. *International Journal of Research in Business and Social Science* (2147–4478), 8(5), 54–61.
- Kumar, R. (2019). *Research methodology: A step-by-step guide for beginners* (3rd ed.). London: Sage Publications Ltd.
- Leni, W., Victoria, C., Maia, K., & Dan, H. (2012). Common constraints and incentive problems in service delivery. *Overseas Development Institute*. Retrieved from <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7791>
- Mangwengwende, T., Chinzara, Z., & Nel, H. (2011). Bank concentration and the interest rate passthrough in Sub-Saharan African countries. *Economic Research Southern Africa*, 233, 30 p.
- Mosadeghrad, A. (2014). Factors influencing healthcare service quality. *International Journal of Health Policy and Management*, 3(2), 77–89.
- Mosadeghrad, A. M. (2004). *Hospital organization and professional administration handbook*. Tehran: Dibagaran Publication.
- Nel, P., Werner, A., Du Plessis, A., Ngalo, O., Poisat, P., Sono, T., Van Hoek, L., & Botha, C. (2011). *Human resources management* (8th Ed.). Southern Africa: Oxford University Press.
- Okpalla, C. L., Inyama, H. C., Odii, J. N., Chukwuneke, C. I., & Onyemauche, U. C. (2022). Review of emergency health care delivery system in Nigeria. *Journal of Advances in Mathematics and Computer Science*, 37(12), 67–74.
- Opoku-Mensah, Y. (2012). *An analysis of human resource planning and its effect on organizational effectiveness – A case study of Information Services Department, Accra Office* (Doctoral dissertation).

- Ozcan, S., Taranto, Y., & Hornby, P. (1995). Shaping the health future in Turkey: A new role for human resource planning. *The International Journal of Health Planning and Management*, 10(4), 305–319.
- Safarani, S., Ravaghi, H., Raeissi, P., & Maleki, M. (2018). Challenges and opportunities faced by teaching hospitals in the perception of stakeholders and hospital system managers. *Education in Medicine Journal*, 10(4), 9–21.
- Stanhope, M., & Lancaster, J. (2001). *Community and public health nursing* (5th ed.). St. Louis: Mosby.
- Tandika, E. L., & Dominic, T. (2022). Unravelling the relationship between strategic human resource management practices and quality health service delivery using canonical correlation analysis. *Operations Research Society of Eastern Africa (ORSEA) Journal*, 10(2), 99–117.
- Vineeth, G. (2019). The role of human resource planning in the human resource network. *International Journal of Creative Research Thoughts (IJCRT)*, 1, 1–10.
- Walley, P., & Amin, V. (1994). Automation in a customer contact environment. *International Journal of Operations & Production Management*, 14(5), 86–100.
- World Health Organization. (2018). *Delivering quality health services: A global imperative for universal health coverage*. Geneva, Switzerland.
- Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). New York: Harper and Row.
- Zhu, Z., Zheng, W., Tang, N., & Zhong, W. (2024). Review of manpower management in healthcare systems: Strategies, challenges, and innovations. *Journal of Multidisciplinary Healthcare*, 17, 5341–5351. <https://doi.org/10.2147/JMDH.S497932>