

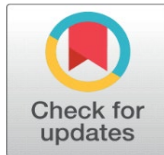
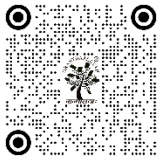
EFFECTIVENESS OF PLANNING ON THE DELIVERY OF PRIMARY HEALTHCARE IN NORTH CENTRAL NIGERIA

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ABSTRACT

Health as often said is a fundamental human right for every being. Therefore, ensuring the delivery of quality healthcare remains a pertinent focus of every government especially in the North Central Nigeria which is the main focus of this paper. Globally today, there is a universal consensus that no organization can effectively function and achieve and their goals and objectives without a robust, in-depth and effective yet flexible planning mechanisms else the become redundant and reactive rather than proactive which potentially hampers the quality of healthcare delivery in healthcare facilities. This study will employ a convergent parallel mixed-methods design. This rigorous approach involves the concurrent, but separate, collection and analysis of quantitative and qualitative data streams, with the explicit intention of merging the findings to draw well-substantiated meta-inferences. The core strength of this design lies in its ability to provide complementary strengths and non-overlapping weaknesses. This paper's strategic intention is to effectively and efficiently explore how effective planning in healthcare influence the delivery of healthcare in primary healthcare facilities across the North Central part of Nigeria.

Keywords: Effective Planning, Healthcare Quality, Strategic Planning, Health Systems Strengthening, Patient Safety and Service Delivery

1. INTRODUCTION

The post 2015 Universal Health Coverage of the World Health Organization emphatically emphasized the need for global leaders and healthcare workers to prioritize the equitable distribution of effective and efficient healthcare services across the various stages of healthcare delivery while continually providing adequate funding, technical and developmental support to healthcare institutions in their various countries (World Health Organization, 2023). This is in tandem with numerous goals set by the Sustainable development goals (UNAIDS, 2024). innumerable key players in healthcare (World Health Organization, UNAIDS, UNESCO etc) have over the years committed humungous amounts of

money towards ensuring that the goals set by the SDGs is achieved in developing countries like Nigeria which has been faced with wanton health challenges that has ridiculed the healthcare system of Nigeria even in its most basic form thus amplifying the need for a total overhauling.

It is impossible to overestimate the crucial role of Primary Health Care in promoting equitable health care and improving health outcomes, particularly in low- and middle-income nations like Nigeria and of particular interest, the North Central part of Nigeria which comprises of states like Benue, Kogi, Kwara, Plateau, Niger, Nasarawa and the Federal Capital Territory (FCT). Primary Health Care can be instrumental to lowering inequality in health and improving overall health through delivering of basic healthcare services and while addressing the more general social determinants of health (World Health Organization, 2023). Notwithstanding its potential advantages, Primary Healthcare Care in the North Central part of Nigeria is underfunded and overlooked in many countries, Nigeria for instance budgetted just around 5.18% of its 2025 budget to healthcare which falls short of the 2001 Abuja Declarations Target of 15% (DRPC, 2025).

Also, Evidence from low- and middle-income contexts shows that without clear planning, hospitals struggle to translate new policies, technologies, and guidelines into better patient experience, timeliness, and safety. In Nigeria, quality gaps persist despite multiple reforms, highlighting a persistent “implementation fault line” between strategy and bedside practice (Usoro et al., 2021). Mid-course adaptations and context-sensitive facilitation have emerged as crucial enablers, especially where workflows are fragmented and incentives misaligned (Olaniran et al., 2022).

Effective planning ensures that healthcare organizations are empowered to set organizational goals and objectives, allocated limited resources to the most critical areas while anticipating and planning future challenges. It guarantees that patient care is provided methodically and systematically in accordance with organizational objectives and national health priorities. On the flips, inadequate or non-existent planning leads to disjointed care, overburdened resources, disorganized services, longer wait times, medical errors, employee burnout, and a general decline in the quality of services provided across healthcare facilities. Murshid et al. (2026)

According to a research carried out by Diab (2020), titled “ The Impact of the Covid-19 Pandemic on Organizational Practices: A Review Study” stated that through effective organizational planning, organizations were able to introduce office configuration and telework which allowed organizations to sustain employee productivity while putting in place effective management control mechanisms that supported organizational response during the pandemic while supporting employees health and safety coordination. Furthermore, Filip et al., (2022) also postulated that during the global pandemic, organizations that had effective planning strategies in place were better positioned to strategically mitigate the impact of the crisis. These organizations were able to expand services, allocate scarce resources efficiently, safeguard healthcare workers while maintaining all essential services. This reinforces the idea that effective planning is not just an administrative requirement, but an essential element in determining patient survival and health system sustainability (Filip et al., 2022).

In developing countries especially, including Nigeria and many sub-Saharan African nations, inadequate planning has been associated with poor infrastructure, unequal distribution of healthcare workers, insufficient medical supplies, and weak referral systems. These limitations significantly compromise healthcare quality. Therefore, improving planning processes has become a key priority in global health discussions, as it directly contributes to achieving Universal Health Coverage (UHC) and the Sustainable Development Goals (SDGs).

This paper explores the following key questions:

- 1) What is effective planning in the context of healthcare?
- 2) What are the different types of planning used in healthcare systems?
- 3) What effect does planning practices have on the delivery of primary healthcare services in North Central Nigeria?
- 4) How does effective planning influence the quality of healthcare delivery?

By answering these sets of questions, this seminar paper seeks to provide an in-depth understanding of how effective planning can be used as a strategic tool to improve the quality of healthcare across diverse health settings.

Hypothesis:

H₁: There is a significant positive relationship between effective planning and the quality of healthcare delivery in healthcare institutions.

2. LITERATURE REVIEW

2.1. CONCEPTUAL REVIEW

Planning in a layman's understanding is the decisions that are made in advance on what needs to be done to achieve desired goals and objectives. Planning is extremely essential in every purview because it bridges the gap between what, when, how and who needs to carryout diverse tasks. Tavo and Rasmus (2024), defined planning as the process of determining the plan, the plan itself is the outcome of the planning process. "Planus" a latin word which means flat, is where the word "planning" originates from.

Planning is considered to be a management function employed by businesses and organizations in supervising, organizing and directing all their activities in other to achieve set goals and objectives. It is an essential element of every aspect of our lives as humans and in business. It has the potency to permeate every crevices we can potentially think of because it helps businesses to effectively decide what to do, when to do, whom to do and how to do it best. Planning should never be ignored because of its comprehensive nature and its ability to serve as solid base for the implementation of every other function of businesses and organizations.

There is an endless consensus among scholars that no business can operate and survive without a plan. According to Orji (2023), businesses and organizations that lacks a plan most often than not lack directions which leads to confused priorities, inconsistency in decision making, thus resulting in poor resource allocation, missed opportunities, and poor performance and growth across the various units of a business. Sasoko (2022), suggests that, an organization's ability to strategically plan all its activities remains its pinnacle to achieving all set goals and objectives no matter how big or small they may be. The author further states that, effective and efficient planning sets the tone and direction for every member of an organization to follow in other carryout a tasks while teaching them the right way to achieve the goals and objectives of an organization.

2.2. PLANNING IN HEALTHCARE

Planning in health care is the disciplined translation of a case for change into a feasible, time-bound roadmap that names owners, resources, milestones, risks, and success measures. Good plans begin with a sharp problem statement, baseline data, and a theory of change that links activities to outcomes through measurable assumptions. They prioritise a small number of high-leverage interventions, sequence them to fit clinical calendars, and cost them realistically so delivery teams can act without delay. Planning also secures an enabling context leadership sponsorship, protected time for staff, data access and builds in early wins to create credibility for more complex steps that follow (Harrison et al., 2021; Silvola, Antikainen, & Tiirinki, 2024).

The health care sector is greatly influenced by goals and objectives that endorse beliefs underlying the values and principles that ought to be pursued, and these values and principles determine what is considered defensible and beneficial for public health activity. Similarly to the business world, planning is a managerial tool used by the health sector to improve healthcare outcomes (Dennis, 2019).

Consequently, planning in the realm of public health represents a reasonably intentional approach to making significant choices and taking initiatives that molds, shape and drive what a public health sector constitutes, what it ultimately does, and the reason why it exists (Bryson, 2011). thus, public health sectors undergo planning to minimize costs, provide quality healthcare service, while ensuring healthcare users have access to care. Furthermore, effective planning enables public health sectors to strategically allocate scarce resources effectively in other to enhance the value of care across all healthcare channels within the public healthcare sector like the Primary Healthcare (Harrison, 2020).

Technically, sound plans integrate improvement and implementation methods. They specify how changes will be tested and adapted in short cycles, which implementation strategies will be used (for instance audit-and-feedback, facilitation, or training), and how adoption and fidelity will be monitored alongside clinical results. This pairing of plan-do-study-act routines with explicit implementation strategies reduces rework, exposes barriers early, and increases the chance that new practices stick in routine work (Ashcraft et al., 2024; Dolansky & Zhong, 2024). In settings with variable resources, planning also includes risk controls contingency stock, cross-cover for key roles, and fallback pathways—so patient safety is maintained during transition. Evidence from Nigerian primary care highlights that plans with routine

measurement and clear roles outperform ad-hoc roll-outs that rely on periodic supervision alone (Okoli, Aina, & Oladipo, 2023; Ogah et al., 2024).

Finally, rigorous planning sets verifiable indicators before action starts. Process metrics (training completion, checklist use, turnaround times) track whether the intervention is reaching the floor; outcome metrics (safety incidents, waiting time, guideline adherence, patient experience) test whether quality is improving; balancing measures check for unintended effects. Publishing a simple dashboard and scheduling reviews at fixed intervals turns the plan into a living management tool rather than a document on a shelf (Silvola et al., 2024; Okoli et al., 2023).

2.3. DIMENSIONS OF PLANNING AND HOW THEY INFLUENCE THE DELIVERY OF HEALTHCARE

2.3.1. STRATEGIC PLANNING

Strategic planning gives direction to planning by deciding what the service will change and why those choices create value for patients and staff in a given context. In health systems, effective strategies anchor on a few priorities where evidence and local need are strongest for example, safer peri-operative care, faster front-door flow, or better continuity across levels and align clinical, workforce, digital, and procurement levers behind those aims. Strategic planning with clarity in healthcare reduces initiative overload, concentrates scarce resources, and helps teams say no to activities that do not advance the agreed goals (Harrison et al., 2021; Silvola et al., 2024).

A credible strategy is context-fit. It assesses health facility readiness, culture, leadership bandwidth, and data maturity, and then chooses implementation strategies with the highest expected return under those conditions. Where readiness is low, investment in coaching, facilitation, and communication may precede complex pathway redesign. Where data systems are mature, strategies can lean on rapid feedback from patients, visual management, and recognition systems to drive behaviour. Studies show that when strategy deliberately combines technical planning with human factors leadership visibility, psychological safety, and team-based problem solving adoption fidelity and patient-facing outcomes improve (Tate, Hotchkiss, Perrin, & Roche, 2023; Ashcraft et al., 2024).

Execution discipline is the test of strategy. High-performing programmes link strategic aims to costed action plans, supplier requirements, and public indicators, ensuring accountability from board to ward. National guidance demonstrates that time-bound targets and regular disclosure accelerate uptake of energy, workflow, and quality reforms by making expectations unambiguous and progress visible. At facility level, the same logic applies: choose a small set of strategic outcomes, wire them into contracts and job plans, review them openly, and adapt based on evidence. This turns strategy into day-to-day practice and reduces reversion to legacy routines (National Health Service, 2020; Okoli et al., 2023).

2.3.2. OPERATIONAL PLANNING

Human Resource planning refers to the planned utilization of all human resources at an organizations disposal in accordance with the requirements and needs of the organization through different process of Human Resources Management like recruitment, training, motivation while making all the necessary adjustments that has the potency to create value for the organization the work for (Chen, 2022). In Human Resource planning, people are the most important element. Marketing Guru, Peter Drucker is regarded as the first person to use the term “ Human Resources” in 1954 during one of his presentations (Chen, 2022). According to Drucker (1954), people are the most dynamic and active factor in the field of Human Resource management and planning due to the many roles the play in the day to day running or organizations. Human resource planning is one of the most significant aspect of planning that needs to be carried out by any organization because it determines how available human resources are utilized and roles assigned according to specializations.

Human resource planning is an amalgamation of actions that predict and address the organization's future business decisions and environmental needs in order to identify human resource needs and recruit. The next task specifications (Singh et al., 2020; Tang et al., 2018). In the years to come, organizational incompatibilities will be a burden and a barrier (Pelletier & Sonenberg, 2019; Wang et al., 2018; Waples & Brachle, 2020). In addition, the outcomes of job analysis must be the foundation for personnel planning (Ahrari et al., 2021; Klug et al., 2019; Lopes & Oliveira, 2020). In order for the company to function successfully and efficiently, qualitative as well as quantitative needs can be identified and enhanced based on the information in the job descriptions.

In the healthcare industry, HR planning involves projecting and delivering the appropriate amount and mix of employees (physicians, nurses, auxiliary health professionals, service personnel), making sure they are trained, motivated, and retained, and coordinating workforce plans with service demands (Stanimirovic and Nrinovec, 2022). Human resource planning is critical to any health-care system and has a significant impact on patient outcomes and service delivery. According to a global evaluation carried out by Lee et al., (2024) asserts that a robust and sustainable health system that accomplishes its main goals of improving accessibility, medical outcomes, responsiveness, and lowering disparities requires effective health workforce planning.

Patient outcomes are enhanced and adverse events are reduced to the barest minimum when health agencies and facilities have appropriate and well-planned staffing (right numbers and required skills) (Adamuz et al., 2025). The relationship between health personnel and quality of healthcare is influenced by good Human resource practices (motivation, satisfaction, retention), hence Human Resource planning must take staff wellbeing into account in addition to headcounts (Limin et al., 2025). In addition to improving overall stability and quality in the delivery of healthcare, effective workforce planning (projecting, flexible staffing, skill-mix management) assists in forecasting future demand (Lee et al., 2024).

2.3.3. FINANCIAL PLANNING

Financial planning plays pivotal role in the delivery of quality healthcare across the globe. The healthcare industry is consistently challenged with inadequate funding, yet, the demand for quality healthcare is on constant increase (Celestine, 2024). Financial planning in healthcare encapsulates all the processes involved in setting financial goals and objectives through effective budgeting of allocation across all units involved in the delivery of quality healthcare. A study by the London School of Planning and Management (2024) stated that financial planning in healthcare strategically empowers healthcare facilities to have a long-term financial stability while ensuring that the medical needs of patients are met at all times. It also arms healthcare agencies with the requisite insights that further impacts and influence strategic decisions during organization growth and development.

Furthermore, the London School of Public Management (2024) also examined how financial planning in healthcare impacts the delivery of quality healthcare and concluded that organizations that had adequate financial planning process were able to deliver quality and affordable healthcare to patients which also improved and continues to influence health outcomes and patient satisfaction.

2.4. DELIVERY OF HEALTHCARE

This seminar paper utilizes the Three E's in healthcare which are efficiency, effectiveness and equity which is one of the most employed framework.

- **Efficiency**

Over the years, the efficiency of health care systems and delivery mechanisms have become a key priority concern for government, policymakers and key health players like WHO, UNICEF and UNESCO in the face of scarce resources that has been pointedly affected by a continuous mounting health system expenditures. Expenditures (WHO, 2020). when efficiency is achieved in the delivery of quality healthcare, it strategically showcases effective leadership through the efficient and effective utilization and allocation of resources which positively mitigate wastage associated with the delivery of quality healthcare [WHO, 2020].

Governments and public' willingness to provide resources for Universal Health Coverage (UHC) is also influenced by efficiency. It is acknowledged that increased efficiency is one of the most significantly desirable goal of the health system [5] in addition to it is an intermediate goal of health-finance policies and initiatives that aid the health system achieve its goals and objectives efficiently (Torkula, 2020). Decision-makers consider it as an important component to set up priorities (Torkula, 2020). Due to the limited availability of healthcare resources, health systems in Nigeria's North Central states and the rest of the country, it comes pivotal that all healthcare operations and delivery must effectively position their operations in a way that ensures that their operations makes optimal use of their resources in order to achieve health systems goals while fostering sustainability capable of fostering long-term economic viability in the direction of Universal Health Care (Torkula, 2020).

In North Central states like Niger state, Rural inhabitants' access to primary healthcare in Niger State is severely limited by issues such as deteriorating infrastructure, a severe staffing shortage, Insecurity and a paucity of necessary medications (Abubakar, 2021). Also, Poor funding, deficient water and sanitation systems, and the Primary Health Care Under One Roof (PHCUOR) reform's lethargic implementation are some of the main obstacles. These problems jeopardize the health of mothers and children, especially in regions that are difficult to reach.

Similarly, Lack of infrastructure poses a serious problem for primary healthcare (PHC) in Benue State; more than 50% of healthcare centers lacking essential medical supplies and equipment, and this correlates to exceptionally high death rates and low patient affordability at 36% (Orodata, 2024). Major issues include the healthcare sector's ongoing lack of funds, reliance on traditional remedies, and persistent staffing shortages (Monday, 2021). Adaji et al. (2023) claimed a similar trend in Kogi state. Yildam et al. (2023) postulated same in plateau state, Yakubu and Yusuf (2024) both proposed the same thing in Nasarawa state, while Fabunmi et al. (2023) provided evidence of the same in Kwara state.

- **Effectiveness**

Effectiveness refers to doing "the right" things, such as establishing appropriate goals to reach and achieve objectives in general. It is the degree to which an action, intervention, or initiative meant to produce the desired effect is successful in achieving planned results, aims, or objectives under typical circumstances not controlled circumstances like in a laboratory (Burches and Burches, 2020).

Outcomes are the primary emphasis of effectiveness: Does services being delivered prevent deaths, cure illnesses, or enhance overall health as intended? This has been hampered by issues including underfunding, manpower shortages, and insecurity in North Central Nigeria, which includes states like Benue, Plateau, Nasarawa, Kogi, Niger, and FCT Abuja, although concentrated efforts shows potential.

Gaps are shown using standard indicators: According to service readiness assessments, just 25% of primary healthcare centers in North Central achieve basic Emergency Obstetric and Newborn Care criteria, in contrast to 40% nationwide (Aliyu et al., 2013).

Only about 35,000 doctors are available in many PHC centers, despite the WHO's assertions that Nigeria needs 237,000 doctors. It culminates in unsatisfactory working conditions and mental exhaustion among healthcare professionals (Slum and Rural Health Initiative Network, 2026). However, a startling 75% of primary healthcare facilities in Nigeria do not have the necessary supplies and equipment package, including medications, glucose testers, thermometers, and personal protective equipment, to carry out their functions (Egekwu and Aig-Imoukhuede, 2023). In order to meet the global average of 2.7 beds per thousand inhabitants, Nigeria needs to invest \$82 billion in healthcare real estate assets and add 386,000 more beds (Egekwu and Aig-Imoukhuede, 2023).

By putting effectiveness first, systems that are resilient can be developed. By 2030, evidence-based scaling might prevent 10,000 fatalities annually in the region, which would be in line with the SDGs. It requires regular financing (10% of the budget for supplies and training) and political determination to uphold standards.

- **Equity**

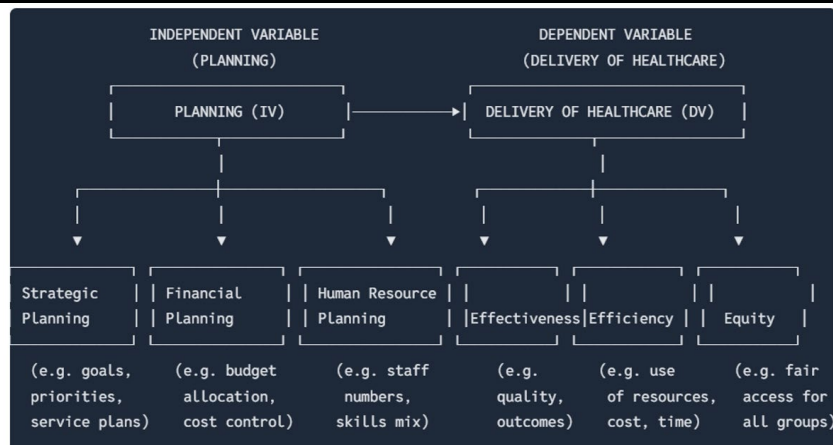
The World Health Organization (2026) defined "equity as the absence of unfair, avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically or by other dimensions of inequality (e.g. sex, gender, ethnicity, disability, or sexual orientation)."

It pivotal to note that health is an enshrined human right and can only be achieved everyone regardless of their status in the society can access equitable healthcare and well-being.

In the North Central part of Nigeria, access to equitable healthcare is somewhat a herculean task due to inadequate funding of primary healthcare centers, poor infrastructure and epileptic power supply (Ogundeji et al., 2023). In rural areas of the North Central region in Nigeria, the aforementioned is exacerbated due to the acute shortage of staff and a glaring differences in the effective distribution of dwindling healthcare workforce further exacerbating the inequity of healthcare delivery (Ibrahim et al., 2022).

- **Conceptual Framework**

Figure one categorically explains the existential relationship between planning and the delivery of healthcare through the captured proxies.



2.5. THEORETICAL REVIEW

2.5.1. DONABEDIAN MODEL

Avedis Donabedian's model is a seminal framework for assessing healthcare quality, dividing it into three components: structure, process, and outcomes. Structure refers to the physical and organizational infrastructure, process to the actual delivery of care, and outcomes to the results experienced by patients. Government interventions can influence all three dimensions. For example, investments in healthcare infrastructure (structure), training programs for healthcare workers (process), and health outcomes monitoring systems (outcomes) are ways interventions align with this model. The Donabedian framework underscores the importance of a holistic approach to quality improvement (Donabedian, 1988).

The three-stage divide (structure, process, and outcome) enables healthcare managers and researchers to carefully evaluate several aspects of care quality, ranging from physical resources and staffing to care delivery procedures and final patient outcomes. This comprehensive approach prevents reliance merely on outcome measures (which may not explain why outcomes are good or bad), allowing for targeted quality improvement. Quality can be broken into smaller, measurable components, making it easier to discover shortcomings. For instance, when outcomes are low but structure is adequate, then the problem might lie in care processes; if processes are satisfactory but outcomes stagnate, it may necessitate further research (patient factors, unmeasured con-founders). This clarity contributes to more effective actions. For example, a study by Opele and Adepoju (2024) confirmed the Donabedian model in Nigerian teaching hospitals, with interviewees ranking structure, process, and result outcomes as "above average," indicating that the Donabedian's model still remains relevant and applicable to local circumstances.

2.5.2. RATIONAL PLANNING THEORY

Rational Planning Theory, often known as the logical-comprehensive model, emphasizes a methodical and analytical approach to decision-making. The significant processes include determining the issue, defining criteria for planning, developing alternatives, reviewing alternatives (typically using cost-benefit evaluation or multi-criteria analysis), choosing the best alternative, implementing it, and monitoring and evaluating it (Juni et al., 2017).

In the field of healthcare, this results into: determining community health issues (e.g., illness prevalence, unmet needs), assessing resources, forecasting future demands, analyzing possible solutions (e.g., constructing new facilities, hiring more staff, offering new services), identifying the most beneficial or effective option, and then carrying out and reviewing the plan that was selected (Huzaifah et al., 2018).

A 2024 review of integrated resource planning in hospitals carried out by Rachuba et al., (2024) discovered that properly planning the distribution of various hospital resources, such as surgical rooms, sleeping spaces, and schedules for employees, results in "considerable efficiency improvements," particularly when planning is comprehensively integrated among various resource types. The rationalistic approach to planning also has some inherent limitations. It fails to capture all stakeholders, it requires tremendous time and information and it presupposes no intervention from authorities in decision-making. According to Lindblom (1959, p. 80), this approach presupposes stakeholders have complete awareness of the process and accurate information.

2.6. EMPIRICAL REVIEW

Performance of organizations and the provision of high-quality treatment have also been examined in connection to strategic planning in public health and hospital settings. The relationship between strategic planning and organizational performance in both the private and public health sector has been at the epic center of numerous available data (Aujirapongpan et al., 2020; Alolayyan et al., 2023 and Hashmi et al., 2021). The majority of the available empirical research data have all confirmed the beneficial effects of strategic planning on public health sector service performance (Vandersmissen et al., 2024).

Strategic planning contributes to stronger organizational performance through improved utilization of resources, measurement of performance, management of supply chains, service delivery transformation, and general growth of organizations, according to a recent scoping review of the public health sector (Wongsin et al., 2025). Strategic management practices in hospitals, notably strategic design, execution, and assessment, were associated with better hospital performance indicators in a Jordanian study. This suggests that systematic strategic planning could translate to improved care quality and efficiency.

A more recent contribution to the planning and how it aids the delivery of quality literature concerns staffing policies and workforce adequacy. A quantitative study across 1,323 healthcare professionals in 2024 tested a conceptual model where staffing adequacy (both quantitative and qualitative) influences team performance via staff work engagement. Results showed that when staffing levels and perceived staffing adequacy are well matched, work engagement increases and that leads to better team performance — a proxy for improved quality in service delivery (Wei et al., 2024). This highlights the importance of focusing on human resources — considering both quantity and quality, as well as staff support for enhancing health-service performance. Insufficient planning regarding workforce distribution and human resource management can result in even the most well-crafted strategic or quality-improvement plans falling short of improving care.

In today's healthcare landscape, planning encompasses data systems, IT infrastructure, and the integration of digital health. For instance, a 2024 intervention study conducted in Egypt demonstrated that the advancement of a health information system (HIS) as part of organizational planning — facilitated decision-making and enhanced performance (service delivery and workflow) in a specialized ophthalmology center (Saleh et al., 2024). Additionally, a 2025 study from Jordan on the impact of strategic foresight in conjunction with artificial intelligence (AI) solutions suggests that proactive planning which anticipates future challenges and incorporates AI-based solutions — can improve the quality of healthcare services, particularly in nursing (Alajrab et al., 2025).

These insights indicate that modern healthcare planning must also factor in data systems, technology implementation, and future-focused strategies, rather than solely relying on traditional resource or human resource planning.

Although there are numerous encouraging signs, the evidence is still mixed and at times contradictory. As previously mentioned, in randomized controlled trials (RCTs) of Continuous Quality Improvement (CQI), less than half demonstrated positive outcomes compared to standard practices (Hill et al., 2020). The intricacies of healthcare systems, variations in context (such as hospital size, available resources, staff dynamics, and organizational culture), along with differences in how initiatives are implemented, likely contribute to these varied results. A recent review highlights that the effectiveness of CQI largely hinges on organization-level facilitators—such as leadership commitment, data infrastructure, workforce capabilities, and strategic alignment—whereas obstacles include cultural resistance, technical shortcomings, and inadequate planning processes (Endalamaw et al., 2024).

Moreover, many studies still rely on observational or quasi-experimental methodologies; true randomized trials in quality improvement are uncommon and, when present, encounter methodological issues such as selection bias, challenges with implementation fidelity, and concerns about sustainability (Hill et al., 2020). Ultimately, context plays a crucial role—evidence from high-income countries (which typically have strong infrastructure) may not be applicable to low- or middle-income environments, where resource limitations, workforce deficiencies, unreliable supply chains, and sociopolitical factors complicate strategic initiatives. Reviews focusing on low- and middle-income countries have pointed out that, although CQI and strategic planning show promise, their execution often falters due to financial constraints, insufficient training, or poor data management systems (Bhat and McCammon 2021)

2.7. LITERATURE GAP

One notable deficiency in the existing literature is the absence of robust causal evidence connecting effective planning directly to enhanced quality of care. Many current studies depend on observational, cross-sectional, or quasi-experimental research designs. Although these methodologies may illustrate correlations between planning initiatives (like strategic planning, workforce planning, or Continuous Quality Improvement – CQI) and better healthcare performance, they fall short of providing conclusive evidence that planning is the main driver of such enhancements.

The limited number of randomized controlled trials (RCTs) or longitudinal intervention studies makes it challenging to ascertain whether the improvements observed are genuinely due to planning or if they are affected by other confounding variables such as institutional reforms, external funding, leadership transitions, or technology advancements. Consequently, the available literature tends to imply correlation rather than causation, thus diluting the strength of recommendations for policy applications.

In order to show a causal relationship underlying planning strategies and quality outputs in healthcare, this gap emphasizes the need for future research to employ more rigorous study designs, such as controlled interventions, longitudinal evaluations, and comparative experimental research.

3. METHODOLOGY

3.1. RESEARCH DESIGN

The philosophical underpinning of this study is pragmatism, which prioritizes the research question and values the selection of methods that most effectively address the problem at hand. Given the multifaceted nature of the research problem which demands both objective measurement of relationships and a deep understanding of human experiences within a complex socio-organizational context a mono-method design was deemed insufficient. Therefore, this study will employ a convergent parallel mixed-methods design. This rigorous approach involves the concurrent, but separate, collection and analysis of quantitative and qualitative data streams, with the explicit intention of merging the findings to draw well-substantiated meta-inferences. The core strength of this design lies in its ability to provide complementary strengths and non-overlapping weaknesses; the breadth and generalizability of the quantitative data compensate for the limited scope of the qualitative inquiry, while the depth and contextual richness of the qualitative data illuminate the mechanistic "why" and "how" behind the quantitative patterns, which a survey alone cannot fully uncover.

3.2. POPULATION OF THE STUDY

The study setting is Nigeria's North-Central geopolitical zone, comprising Benue, Kogi, Kwara, Nasarawa, Niger and Plateau States and the Federal Capital Territory (FCT), Abuja). This zone combines major urban centres and extensive rural localities, and it exhibits the service-delivery heterogeneity typical of the national primary-care system features that make it an appropriate microcosm for examining implementation gaps in public PHC. The target population is all healthcare workers and facility managers in public Primary Healthcare Centres (PHCs) across the zone, including Medical Officers, Nurses, Midwives, Community Health Officers (CHOs), Community Health Extension Workers (CHEWs), Junior CHEWs (JCHEWs), Laboratory Technicians, Pharmacists/Pharmacy Technicians and the Officer-in-Charge (OIC) of each facility. Personnel in secondary/tertiary facilities and all private providers are excluded to maintain a clear focus on the public PHC platform that is directly responsible for delivering essential services in the zone. (The geographic composition follows standard national classifications used in major surveys.)

3.3. SAMPLE SIZE AND SAMPLING TECHNIQUE

This investigation is a cross-sectional, facility-based survey of public PHC workers and managers. To secure representativeness and operational feasibility, we adopt a multi-stage, stratified probability design closely modeled on the architecture used by Nigeria's most authoritative surveys (e.g., the Demographic and Health Survey, DHS; the Multiple Indicator Cluster Survey, MICS), which rely on geographic stratification and random selection at successive stages to achieve unbiased population coverage. Such designs are the empirical norm for large surveys in Nigeria and the wider region because they balance cost with statistical precision and permit domain-level inference (e.g., by urban-rural or region).

In Stage 1, we include the FCT and randomly select four other States from the six in the North-Central zone to ensure heterogeneity while controlling field logistics; this mirrors the principle in DHS/MICS of region-based stratification prior to cluster selection. In Stage 2, Local Government Areas (LGAs) within each selected State/FCT are stratified by rural residence are randomly chosen per unit. In Stage 3, we obtain official PHC lists from the State Primary Health Care Development Agencies and select PHCs at random within each LGA (probability-proportional-to-size where feasible) to reach 5 PHCs overall.

In Stage 4, respondents are sampled within facilities as follows: the OIC is included in every PHC, and nine additional eligible staff are drawn by simple random sampling from the duty roster (if ≤ 9 staff are available, all are included). This stage yields 10 respondents per PHC $\times 5$ PHCs = $n = 50$, which anchors the survey at the required fixed sample size while maintaining probability selection at each stage. The four-stage structure reflects the same logic used by flagship household and facility surveys first stratify geographically, then select clusters, then sample units within clusters to reduce selection bias and improve precision.

3.4. DATA COLLECTION METHODS AND INSTRUMENTS.

Data collection for this study will be implemented through a suite of specifically designed quantitative and qualitative instruments, administered by a team of trained research assistants to ensure consistency and reliability.

3.5. VALIDITY AND RELIABILITY OF INSTRUMENTS

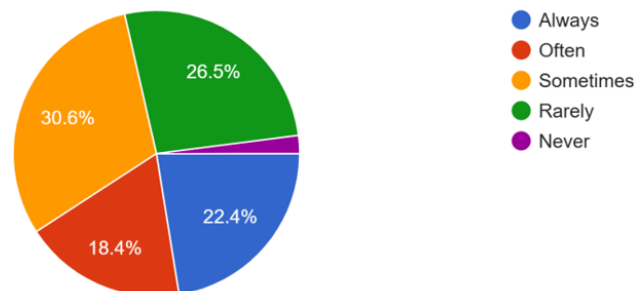
To ensure the rigor and trustworthiness of the study findings, a systematic approach to establishing the validity and reliability of the research instruments will be undertaken. For validity, the instruments will first be subjected to reviews by a panel of experts in public health, health management, and research methodology to establish robust face and content validity, ensuring the tools adequately and comprehensively cover the constructs of interest.

4. FINDINGS AND DISCUSSION

Q.1.

1. To what extent are annual operational plans developed for primary healthcare facilities in your area?

49 responses

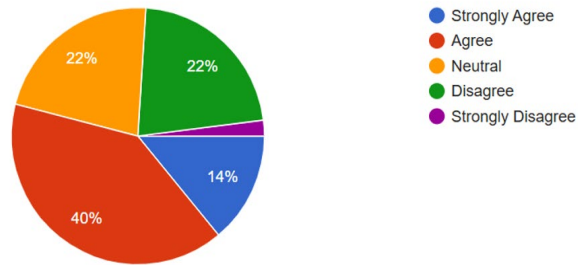


A total of fifty surveys were given to healthcare professionals working in primary healthcare institutions in the North Central states. The questionnaires asked about the degree to which annual operating plans are created in each facility. Operational plans are carried out occasionally, according to 30.6% of respondents, while they are always carried out, according to 26.5% and 22.4% of respondents. 2% said never, while 18.4% said frequently.

Q.2

2. Are frontline health workers (nurses, CHEWs, community volunteers) actively involved in planning primary healthcare services?

50 responses

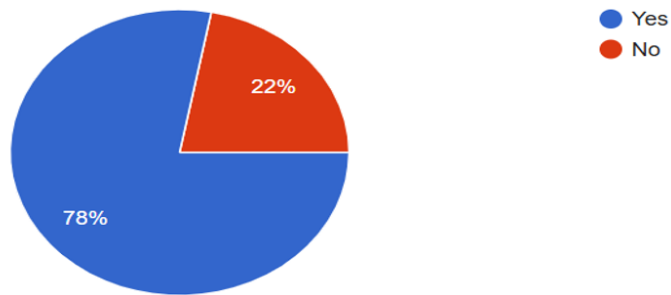


40% of respondents agreed, 22% remained neutral, 22% disagreed, 14% strongly agreed, and 2% strongly disagreed when asked if front-line healthcare professionals were actively involved in the planning of Primary Healthcare Services.

Q.3

3. Do community members or leaders participate in identifying priorities when planning primary healthcare activities?

50 responses

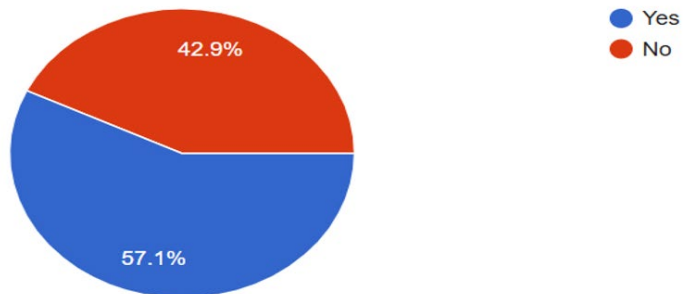


78% of respondents answered Yes when they were asked if community members or leaders participate in identifying priorities when planning primary healthcare activities while 22% answered No.

Q.4

4. Does planning for primary healthcare in your LGA include clear budget estimates and identified funding sources?

49 responses

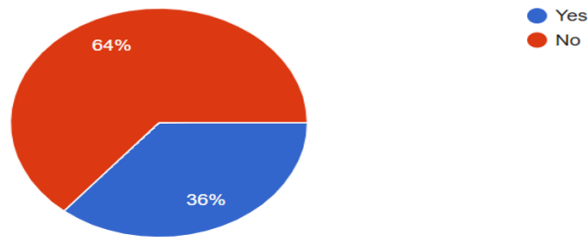


When asked if their local government's primary healthcare planning had clear budget estimates with specified financing sources, 57.1% of respondents said "yes," while 42.9% said "no."

Q.5

5. Are planned primary healthcare projects (e.g., buildings, equipment, outreach) usually implemented within the planned time frame?

50 responses

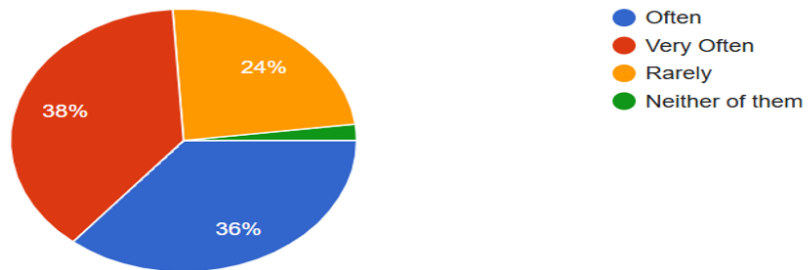


64% disagreed that planned primary healthcare projects like buildings, equipment, outreach are usually implemented within the planned time frame while 36% said they are implemented within the-planned time frame set by relevant health agencies.

Q.6

6. How often are shortages of drugs, vaccines, or basic equipment due to poor planning or procurement processes?

50 responses

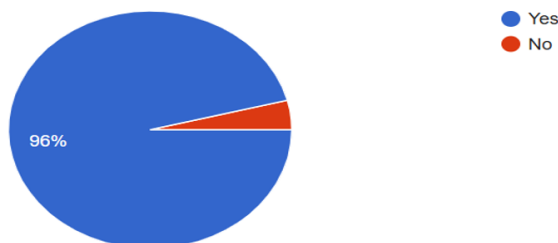


The following were the responses of respondents. 38% of the respondents suggests that shortages of drugs, vaccines, or basic equipment is very often caused by poor planning and procurement process, 36% said often, 24% opined that it is rarely caused by poor planning and procurement processes while 2% responded that neither of them can be attributed to shortage of drugs, vaccines and equipment.

Q.7

7. Does effective planning help reduce waiting time and improve the organisation of services in your primary healthcare facility?

50 responses

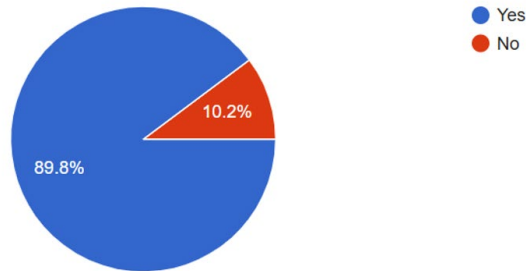


96% of respondents agreed that effective planning helps in reducing waiting time at health facilities while improving services being rendered at the primary healthcare centers across the north central. 4% of respondents disagreed.

Q.8

8. Does planning for staff recruitment, posting, and training improve availability and performance of health workers in your facility?

49 responses

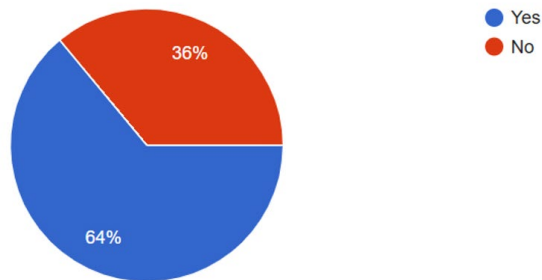


89.8% as against 10.2% agreed that planning for staff recruitment, posting and training improve availability and performance of health workers in their facilities.

Q.9.

9. Are communication and community engagement activities for primary healthcare (e.g., health talks, outreach, public announcements) guided by a written communication plan?

50 responses

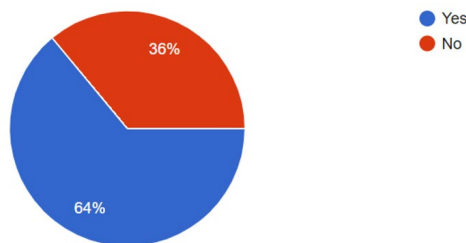


When asked whether communications and community engagement activities for primary healthcare were guided by a written communication plan 64% answered affirmatively while 36% said No.

Q.10

10. Are there regular reviews or supervisory visits to monitor how well primary healthcare plans are being implemented and to make corrections where needed?

50 responses



64% respondents agreed that regular reviews or supervisory visits are carried out to monitor how well primary healthcare plans are being implemented while 36% disagreed.

4.1. INTERPRETATION OF FINDINGS

From the survey that was undertaken for the research study which primarily focused on addressing the objectives of the research while answering research questions. From the survey that was carried out across the five primary health centers across five states in the North Central Nigeria, it was discovered that planning and all its elements and dimensions impact and influence the delivery of healthcare across facilities. For instances, a whopping 96% of respondents across facilities agreed that planning of primary healthcare services helps facilities to reduce patient waiting time. This findings correlates with the findings of both Naiker et al., (2017) and Saether et al., (2019), which asserted that when healthcare delivery is influenced positively when healthcare planning is strategically positioned and grouped for operational efficiency and has the potency of reducing outpatient waits. While Johannessen et al., (2018) evidenced in their study that healthcare facilities with effective planning, strategic redesign and value-mapping reduced patient waiting time fro 162 days to 52 days without incurring any cost.

5. DISCUSSION AND CONCLUSION

The delivery of healthcare and quality of care is significantly affected by planning, which can be strategic, operational, workforce-oriented, or data-focused. Experimental evidence suggests that effective planning can improve structures, procedures, and even patient outcomes when it is integrated into organizational culture and backed by data systems and resources. The data, however, also warns against overconfidence: numerous research efforts only demonstrate improvements at the process level instead of the final patient outcomes, results are variable, and context is crucial. This emphasizes the necessity of meticulous, context-aware, and long-term planning in places like Nigeria, which combines strategic vision with workforce support, ongoing improvement, and fueled by data management, as opposed to assuming one-time reforms to produce high-quality treatment right now.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

- Bryson, J. M. (2011). *Strategic planning for public and nonprofit organizations*. Jossey Bass.
- Dennis, B. (2019). Planning as a managerial tool in public health systems. *Public Health Management Review*.
- Diab, G. M. (2020). The impact of the COVID 19 pandemic on organizational practices: A review study. *Journal of Organizational Studies*.
- Donabedian, A. (1988). The quality of care: How can it be assessed? *JAMA*, 260(12), 1743–1748.
- DRPC (2025). *Nigeria health budget analysis report*. Development Research and Projects Centre.
- Egekwu, E., & Aig Imoukhuede, O. (2023). Healthcare infrastructure investment gaps in Nigeria. *Health Systems Journal*.
- Filip, J., et al. (2022). Strategic planning and health system resilience during the COVID 19 pandemic. *International Journal of Health Planning and Management*.
- Harrison, R. (2020). Strategic resource allocation in public healthcare systems. *Health Policy and Management*.
- Harrison, R., Fischer, S., Walpola, R. L., Chauhan, A., Babalola, T., Mears, S., & Le Dao, H. (2021). Where do models for change management, improvement and implementation meet? *Journal of Healthcare Leadership*, 13, 85–108.
- Hill, J., et al. (2020). Evaluating continuous quality improvement in health care: Evidence from randomized trials. *BMJ Open*.
- Johannessen, K. A., et al. (2018). Reducing patient waiting time through process redesign. *BMJ Open Quality*.
- Juni, P., et al. (2017). The rational-comprehensive model in health planning. *Health Policy Review*.

- Lee, S., et al. (2024). Health workforce planning and sustainable health systems. *Human Resources for Health*.
- Lindblom, C. E. (1959). The science of “muddling through.” *Public Administration Review*, 19(2), 79–88.
- Murshid, M. E., Islam, S., and Rahaman, M. M. (2026). Empowering Women to Bridge the Healthcare Gaps in Kutubdia. *ShodhSamajik: Journal of Social Studies*, 3(1), 184-188. <https://dx.doi.org/10.29121/ShodhSamajik.v3.i1.2026.80>
- Naiker, U., et al. (2017). Planning and outpatient waiting time reduction. *International Journal of Health Care Quality Assurance*.
- National Health Service (NHS). (2020). We are the NHS: People plan for 2020/21. NHS England.
- Ogah, P. O., et al. (2024). Primary health care in Nigeria: Best practices and quality of care. *BMC Health Services Research*.
- Okoli, U., Aina, M., & Oladipo, O. (2023). Routine measurement and quality improvement in Nigerian primary care. *BMJ*.
- Olaniran, A. A., et al. (2022). Influence of context on quality improvement priorities in Nigerian health facilities. *BMJ Open Quality*.
- Opele, J. K., & Adepoju, O. (2024). Assessing healthcare quality using the Donabedian model in Nigeria. *Nigerian Journal of Health Management*.
- Orji, I. A. (2023). Planning and organisational performance in developing economies. *African Journal of Management Studies*.
- Saether, E. M., et al. (2019). Operational planning and patient flow efficiency. *Health Services Research*.
- Silvola, S., Antikainen, K., & Tiirinki, H. (2024). Change management for service redesign in healthcare. *Journal of Preventive Medicine and Hygiene*, 65(2), E100–E112.
- Tate, K., Hotchkiss, R., Perrin, R., & Roche, R. (2023). Authentic leadership, organisational culture and hospital quality management. *Journal of Advanced Nursing*, 79(5), 1777–1792.
- Torkula, S. (2020). Efficiency as a health system objective. *Health Economics Review*.
- UNAIDS. (2024). Sustainable Development Goals and health financing. UNAIDS.
- Usoro, A., et al. (2021). Implementation gaps in healthcare reforms in Nigeria. *Health Policy and Systems Research*.
- World Health Organization (WHO). (2020). Health system efficiency: Key frameworks. WHO.
- World Health Organization (WHO). (2023). Quality of care. WHO.
- World Health Organization (WHO). (2026). Health equity. WHO.