ACHIEVING LOCAL DEVELOPMENT GOALS: ANALYZING 2023 LGAS ANNUAL OPERATIONAL PLANS IN NORTHWESTERN NIGERIA

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Abstract. Effective implementation of Annual Operational Plans (AOP) is critical for achieving health system goals, particularly in decentralized governance structures. This study evaluates the 2023 implementation of AOPs across 21 Local Government Areas (LGAs) in Kebbi State, Northwestern Nigeria to identify performance trends, strengths, and challenges. A tracking methodology was employed, involving five data collectors assigned to geographically clustered LGAs. Data collectors engaged directly with Local Government Health Authority (LGHA) members during monthly sessions to track implementation progress using a structured Google Sheets-based tracker. Descriptive and comparative analyses were conducted to assess implementation rates across LGAs and operational planning pillars. The average implementation rates across LGAs ranged from 79% in Zuru to 94% in Bagudo, with most LGAs achieving over 80%. Pillar-specific analysis revealed high performance in Health Promotion (96%) and Leadership and Governance (94%), while Partnership for Health and Public Health Emergencies lagged at 67%. Funding contributions from various stakeholders demonstrated strong collaboration, with key insights pointing to geographic disparities and systemic challenges in underperforming areas. The findings highlight significant achievements in the implementation of the 2023 AOP while uncovering critical areas requiring attention, particularly in infrastructure and partnerships. These insights provide a robust foundation for improving planning and resource allocation in future cycles, contributing to the sustainability of primary healthcare services.

Keywords: annual operational plan, implementation, local government health authority, health system performance, Northwestern Nigeria, primary healthcare

Introduction

Effective operational planning and implementation are undeniably crucial components in the process of strengthening health systems in any community. This

necessity is particularly pronounced in decentralized governance structures, where local governments are entrusted with the vital responsibility of addressing a variety of diverse and region-specific health needs. Within this specific context, the Annual Operational Plan (AOP) serves as an essential and dynamic tool for effectively translating national health policies, along with overarching priorities, into practical, actionable strategies that can be applied and adapted at the local level (Kotharkar and Ghosh, 2022; Olazabal and De Gopegui, 2021; Stefanakis et al., 2021). The successful and meticulous execution of AOPs holds a direct and considerable influence on the accessibility, quality, and sustainability of healthcare services that are provided to the community. As a direct consequence, prioritizing their diligent implementation emerges as a critical area of focus for ongoing health system performance evaluation, which is not only necessary but ultimately imperative for progress (Al-Assaf et al., 2024). By ensuring that these comprehensive plans are skillfully developed, effectively communicated, and strictly adhered to, we can consistently promote significant improvements in health outcomes while enhancing the overall effectiveness and efficiency of health service delivery systems at every level of operation, from local municipalities to national institutions alike (Adam et al., 2021; WHO, 2021a).

The importance of operational planning in health systems

Operational planning in health systems is a critical process that involves defining clear objectives, allocating necessary resources, and identifying specific activities that are required to effectively meet health targets within a specified timeframe (Grieco et al., 2021; WHO, 2021b). A well-implemented Annual Operational Plan (AOP) plays a vital role in ensuring that healthcare delivery systems are not only aligned with the genuine needs of the community but also that resources are being optimally utilized. This strategic approach is essential for achieving measurable health outcomes. In regions where health governance is decentralized, such as the 21 Local Government Areas (LGAs) in Kebbi State, located in Northwestern Nigeria, AOPs provide an essential framework. This framework enables local health authorities to address pressing local health priorities, all while contributing to and aligning with overarching national health goals that seek to improve health standards across the entire country. The Annual Operational Plan holds significant importance within the context of Nigeria's health system, which is currently confronted with myriad challenges (Elemuwa et al., 2024; Balogun, 2022). These challenges include but are not limited to, inequities in healthcare access, resource constraints, and a notably high burden of disease impacting the population. By establishing clear and measurable targets alongside effective strategies, Annual Operational Plans aim to bridge these critical gaps and enhance health outcomes across various operational planning pillars (Mustafa et al., 2022; Al Awaidy et al., 2021). These pillars encompass essential areas such as maternal and child health, disease prevention initiatives, health promotion efforts, and comprehensive emergency preparedness strategies to respond to health crises.

The context of health challenges in Northwestern Nigeria

Northwestern Nigeria is characterized by significant and alarming health disparities, which are driven and exacerbated by a variety of socioeconomic, cultural, and infrastructural factors (Chidi et al., 2023; Towoju, 2023). Rural and underserved communities in this region often face the grim reality of limited and inadequate access

to essential healthcare services, high maternal and child mortality rates, and a growing burden of both communicable and non-communicable diseases (Nakayama et al., 2023; Aruleba and Jere, 2022; Pereira et al., 2021). These multifaceted challenges are further compounded by systemic issues that include weak health infrastructure, insufficient workforce capacity, and fragmented funding mechanisms that fail to adequately support health initiatives (Belay et al., 2024; Adetunji et al., 2023; Lawal et al., 2021). Consequently, the health landscape in Northwestern Nigeria presents a critical challenge that requires urgent intervention and concerted efforts to improve the overall well-being of its population, particularly among the most vulnerable groups (Mohammed et al., 2024; Badewa and Dinbabo, 2023). The region's decentralized governance structure places a significant and considerable amount of responsibility on Local Government Areas (LGAs) to effectively address these pressing and complex challenges. Local Government Health Authorities (LGHAs) are expected to meticulously plan, implement, and monitor health interventions that are specifically tailored to fit their unique and diverse contexts. However, their capacity to fulfill these critical roles effectively is significantly influenced by various factors such as the quality of leadership, availability of resources, and the level of community engagement (Al Kurdi et al., 2022; AlTaweel and Al-Hawary, 2021; Arfi et al., 2021). Evaluating the implementation of Annual Operating Plans (AOPs) in this context provides valuable and informative insights into the strengths and weaknesses of the health system, thus informing strategies for improvement and facilitating enhanced health outcomes for the community.

Tracking and evaluating AOP implementation

The overall success of any operational plan is influenced not only by the meticulous design it undergoes but also significantly relies on its effective implementation and diligent monitoring. Regularly tracking the implementation of the Annual Operational Plan (AOP) enables stakeholders to assess their progress effectively, identify potential bottlenecks in real-time, and make well-informed, data-driven decisions aimed at enhancing overall performance. In this comprehensive study, a structured methodology was applied on a monthly basis to thoroughly evaluate the implementation of the 2023 AOP across 21 Local Government Areas (LGAs) in Kebbi State, Nigeria. This systematic approach involved direct and meaningful engagement with members of the Local Government Health Authorities (LGHA) to ensure accurate and reliable data collection while also fostering a sense of ownership and accountability among the stakeholders involved in the implementation process. Through a comprehensive analysis of the implementation rates observed across Local Government Areas (LGAs) and the various operational planning pillars, this study aspires to identify the key drivers that contribute to successful outcomes, along with the challenges that impede effective execution. The investigation into high-performing LGAs and operational pillars reveals valuable lessons that can be adopted and replicated in different contexts, creating the potential for broader application of successful strategies. In contrast, the exploration of underperforming areas sheds light on systemic gaps that necessitate targeted interventions, emphasizing the importance of addressing these weaknesses in order to enhance overall performance and effectiveness.

Significance of the study and research objectives

This study contributes to the growing body of evidence on health system performance evaluation in decentralized settings. Focusing on the implementation of AOPs provides actionable insights for policymakers, health administrators, and development partners seeking to strengthen local health governance. Specifically, the findings will: shed light on the factors influencing LGA performance in implementing AOPs; highlight disparities in resource allocation and utilization across operational planning pillars; and offer recommendations for improving the design, execution, and monitoring of AOPs in similar contexts. The study also underscores the importance of collaborative efforts to strengthen the health system. The involvement of diverse stakeholders, from LGHA members to funding partners, demonstrates the collective responsibility required to achieve sustainable health outcomes. Evaluating and addressing the barriers to effective AOP implementation can enhance the efficiency and equity of health services, ultimately improving the well-being of communities across Northwestern Nigeria. This study is guided by the following objectives: (1) To evaluate the implementation rates of the 2023 AOP across 21 LGAs in Kebbi State, Northwestern Nigeria; (2) To assess the performance of operational planning pillars and identify areas of strength and weakness; (3) To explore the factors contributing to variability in implementation rates across LGAs and pillars; and (4) To provide actionable recommendations for improving the design and execution of future AOPs.

Materials and Methods

This study employed an implementation tracking approach to evaluate the 2023 Annual Operational Plan (AOP) execution across 21 Local Government Areas (LGAs) in Kebbi State, Northwestern Nigeria. The methodology was designed to ensure a systematic and consistent collection of data on implementation progress while fostering collaboration with local stakeholders for accurate and reliable insights. The study focused on 21 LGAs within Kebbi State, Northwestern Nigeria. The primary participants were members of the Local Government Health Authority (LGHA) in each LGA, who are directly involved in the implementation of the AOP. To ensure comprehensive and efficient data gathering, five trained data collectors were assigned specific clusters of LGAs based on geographic proximity. This clustering reduced logistical challenges and allowed data collectors to focus on localized dynamics within their assigned areas. (1) Interaction with LGHA Members: Each data collector engaged directly with the LGHA members responsible for implementing the AOP. Meetings were conducted at the respective LGHA offices during the first week of each month to review the implementation progress for the preceding month, and data collectors facilitated discussions to track activities, milestones, and barriers encountered during implementation. (2) Tracking Tools: implementation data were recorded using a structured Google Sheets-based tracker, which was pre-designed to capture key performance indicators across various pillars of the AOP, this tracker was accessible to all data collectors for real-time entry, enabling centralized data management and analytics.

Data collection was conducted monthly from January to December 2023. Each data collection session corresponded to the first week of the new month, covering activities and outcomes from the preceding month. Data Entry: Data collectors entered information directly into the Google Sheets-based tracker immediately after their interactions with LGHA members. This minimized errors associated with delayed data

entry. Validation: Cross-checking of data was conducted monthly by the principal investigator to ensure consistency and accuracy; Discrepancies or missing data points were resolved by re-engaging with the respective LGHA members. Training and Supervision: Data collectors were provided with comprehensive training on the use of the Google Sheets tracker and the specific indicators being tracked, periodic supervisory meetings were held to address challenges and refine the data collection process as needed. The Google Sheets tracker allowed for automated compilation and visualization of data across LGAs and AOP pillars. Analytical methods included: (1) Descriptive Analysis: Calculated average implementation rates for each LGA and pillar over the 12-month period. (2) Comparative Analysis: Identified variations in performance across LGAs and operational pillars. (3) Trend Analysis: Examined month-to-month fluctuations in implementation rates to identify patterns or outliers.

Results and Discussion

The 2023 implementation of the Annual Operational Plans (AOP) across the 21 Local Government Areas (LGAs) in Kebbi State, Northwestern Nigeria, demonstrated varying levels of achievement. The average implementation rates for each LGA ranged from 79% to 94% (Table 1). Top Performing LGAs: Bagudo recorded the highest implementation rate at 94%, closely followed by Gwandu, Kalgo, and Bunza, each achieving 93%. Lowest Performing LGAs: Zuru had the lowest implementation rate at 79%, followed by Sakaba and Fakai, each at 82%. The implementation rates for the various operational planning pillars also showed disparities, reflecting specific strengths and challenges in AOP execution (Table 2). High-Performing Pillars: The Health Promotion pillar achieved the highest implementation rate at 96%, followed by Leadership and Governance, Reproductive Health, Maternal, Newborn, and Child Health (MNCH) and Nutrition, and General and Emergency Hospital Services, each with an implementation rate of 93%. Low-Performing Pillars: Partnership for Health, Public Health Emergencies, and Health Infrastructure recorded the lowest rates, each at 67%, Non-Communicable Diseases (NCDs) and Human Resources for Health (HRH) also lagged, with implementation rates of 79%.

Table 1. Average Implementation Rate from Jan.-Dec. 2023 for the 21 LGAs.

S/N	LGA	Average Implementation Rate (JanDec. 2023)
1	Aleiro	91%
2	Arewa Dandi	91%
3	Argungu	92%
4	Augie	90%
5	Bagudo	94%
6	Birnin Kebbi	88%
7	Bunza	93%
8	Dandi	87%
9	Fakai	82%
10	Gwandu	93%
11	Jega	89%
12	Kalgo	93%
13	Koko/Besse	87%
14	Maiyama	90%
15	Ngaski	89%
16	Sakaba	82%
17	Shanga	91%
18	Suru	91%
19	Wasagu	84%
20	Yauri	90%
21	Zuru	79%

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Table 2. Average Implementation Rates (from Jan.-Dec. 2023) for the Pillars of Operational Planning Across the 21 LGAs.

S/N	LGA	Average Implementation Rate (JanDec. 2023)
1	Lead & Gov.	94%
2	Community Participation and Ownership	91%
3	Partnership for Health	67%
4	Reproductive Health, MNCH, and Nutrition	93%
5	Comm. Diseases	91%
6	Non-Comm. Diseases	79%
7	Gen. & Emergency Hosp. Services	93%
8	Health Promotion	96%
9	HRH	79%
10	Health Infras.	67%
11	Medicines, Vaccines, Tech.	93%
12	HMIS	91%
13	Research for Health	81%
14	Public Health Emergencies	67%
15	Health Finance	82%

The funding for the №1,264,044,360.00 AOP was derived from multiple sources, with contributions reflecting the collaborative efforts of various stakeholders. The contributions are illustrated in *Figure 1*, highlighting the proportional investments from each funding entity. Geographic Disparities: Proximity-based clustering of LGAs and resource allocation may have contributed to performance variations, with some LGAs demonstrating consistent alignment with planned activities while others struggled. Pillar-Specific Challenges: High performance in Health Promotion and Leadership and Governance suggests effective prioritization and resource alignment in these areas, lower rates in Health Infrastructure and Partnership for Health indicate potential systemic or resource-based challenges requiring targeted interventions. Overall Implementation Success: The aggregated performance across all LGAs and pillars underscores a generally successful implementation process, with the majority of LGAs achieving rates above 80%. These results highlight the strengths and weaknesses in the implementation of the 2023 AOP, providing a foundation for strategic planning and resource allocation in subsequent years.

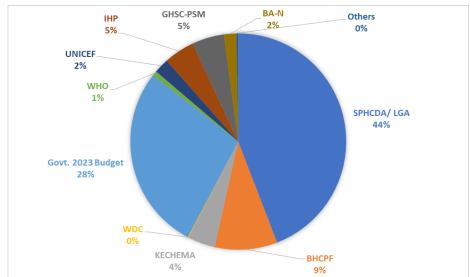


Figure 1. Proportions of the Proposed Contributions to the Funding for the № 1,264,044,360.00 Budgeted Plans for the 21 LGAs.

The implementation of the 2023 Annual Operational Plan (AOP) across 21 Local Government Areas (LGAs) in Kebbi State, Nigeria revealed important insights into the performance of health system operations at the local level. This section explores the key findings and their implications and offers actionable recommendations to enhance future implementation efforts. The study revealed notable variability in the implementation rates of the Annual Operational Plan (AOP) across the 21 Local Government Areas (LGAs) in Kebbi State, Nigeria. The average implementation rates ranged from a high of 94% in Bagudo to a low of 79% in Zuru, with most LGAs achieving rates above 80%. This variability highlights differences in the ability of LGAs to align their activities with the planned operational goals and execute them effectively. Bagudo (94%), Gwandu (93%), and Kalgo (93%) were among the top-performing LGAs. These LGAs likely benefitted from strong leadership at the Local Government Health Authority (LGHA) level, effective coordination, and adequate resource allocation. The higher performance could also indicate robust community engagement and collaboration with stakeholders, such as healthcare workers, community representatives, and local organizations. These factors are essential for translating operational plans into tangible actions and achieving targeted health outcomes.

At the other end of the spectrum, Zuru (79%), Sakaba (82%), and Fakai (82%) were the lowest-performing LGAs. The lower implementation rates in these areas may be attributed to several potential challenges: (1) Resource Constraints: Insufficient financial and material resources could have limited the capacity of these LGAs to execute planned activities effectively; Geographic remoteness or logistical challenges might have further hindered access to resources. (2) Leadership and Workforce Limitations: Weak leadership at the LGHA level may have contributed to a lack of effective planning, monitoring, and accountability mechanisms; Inadequate workforce capacity, in terms of both numbers and skills, could have hampered the implementation of key activities. (3) Community Engagement and Trust: Low levels of community participation or trust in health interventions might have reduced the success of planned activities, especially those requiring active community involvement, such as immunization campaigns or health education initiatives. (4) Systemic Challenges: Broader systemic issues, such as poor infrastructure, weak supply chains, or inconsistent policy support, might have disproportionately affected these LGAs.

The performance disparities across LGAs suggest that contextual factors, such as geographic location, local leadership capacity, and resource availability, play a significant role in shaping implementation outcomes. High-performing LGAs likely possess a combination of favorable conditions that enable them to overcome common challenges. On the other hand, lower-performing LGAs may require additional support and targeted interventions to address their unique barriers. These findings emphasize the need for tailored strategies that consider the specific needs and circumstances of each LGA. A one-size-fits-all approach to operational planning and implementation is unlikely to achieve equitable health outcomes across the region. Instead, efforts should focus on strengthening the foundational capacities of lower-performing LGAs, addressing resource gaps, and fostering collaboration between local and state-level stakeholders. This variability also reflects the interconnectedness of health system components. For example, the ability of an LGA to implement its operational plan effectively is not solely dependent on local factors; state and national policies, funding mechanisms, and support systems also play critical roles. High-performing LGAs may

have benefitted from more consistent support from higher levels of government or better alignment between local needs and national priorities.

To reduce disparities and improve overall performance, the following actions are recommended: (1) Targeted Resource Allocation: Conduct detailed needs assessments to identify resource gaps in lower-performing LGAs and allocate additional funding, workforce, and infrastructure support accordingly. (2) Leadership Development: Invest in leadership training programs for LGHA officials in underperforming LGAs to enhance their capacity for planning, coordination, and accountability. (3) Community Engagement: Strengthen community participation in health programs through targeted campaigns, trust-building initiatives, and active involvement in decision-making processes. (4) Tailored Monitoring and Support: Establish monitoring systems that provide real-time insights into LGA performance and allow for adaptive management. State-level teams should provide targeted technical assistance to LGAs facing challenges. (5) Infrastructure Investments: Address infrastructural deficiencies in lowerperforming LGAs by improving access to healthcare facilities, transportation networks, and supply chain systems. The implementation of the 2023 Annual Operational Plan (AOP) across the operational planning pillars revealed notable strengths and weaknesses. While several pillars demonstrated high levels of success, others underperformed, highlighting critical gaps in the health system's ability to address specific areas. These disparities underscore the need for targeted investments and strategies to balance strengths and mitigate weaknesses.

High performing pillars

The Health Promotion pillar emerged as the highest-performing area, with an average implementation rate of 96%. This success reflects strong prioritization of health awareness campaigns and educational initiatives aimed at improving community health literacy. Health promotion activities often rely on robust community engagement, which appears to have been effectively mobilized. High implementation in this pillar likely contributed to better preventive care outcomes, fostering long-term health system resilience. The Leadership and Governance pillar also performed exceptionally well, with an average rate of 94%. This result indicates effective oversight, planning, and coordination mechanisms at both the local and state levels. Strong governance plays a foundational role in aligning resources, setting clear priorities, and fostering accountability, which likely contributed to the high overall implementation rates observed in many LGAs. Another high-performing pillar was reproductive health, MNCH, and nutrition, which achieved an impressive 93% implementation rate. This success may be attributed to targeted interventions such as maternal immunization programs, antenatal and postnatal care initiatives, and child nutrition campaigns. The integration of these services into routine healthcare delivery systems likely enhanced accessibility and effectiveness. The strong performance in this pillar underscores the ability of the health system to deliver essential and emergency care. Investments in hospital infrastructure, staff training, and emergency response mechanisms have likely contributed to this achievement.

Low performing pillars

The Partnership for Health pillar recorded one of the lowest implementation rates at 67%. This underperformance highlights systemic challenges in fostering collaboration

among stakeholders, including government agencies, private sector partners, and Non-Governmental Organizations (NGOs). The low score suggests a lack of effective mechanisms to leverage these partnerships for resource mobilization, capacity building, and joint program implementation. The Public Health Emergencies pillar also scored poorly, reflecting gaps in preparedness and response capabilities. Limited investment in early warning systems, emergency response plans, and stockpiling of essential supplies may have hampered the health system's ability to respond effectively to public health crises. This is particularly concerning given the increasing frequency of health emergencies, including outbreaks of infectious diseases and climate-related health events. Health infrastructure was another weak area, achieving an implementation rate of only 67%. Poor performance in this pillar may be linked to inadequate investments in the construction, maintenance, and upgrading of healthcare facilities. Infrastructure deficits not only hinder service delivery but also contribute to disparities in healthcare access, particularly in rural and underserved areas. The Non-Communicable Diseases (NCDs) pillar, while slightly better than the lowest-performing pillars, still lagged behind most others. The rising burden of NCDs, such as hypertension, diabetes, and cancer, requires significant attention in terms of preventive strategies, early detection, and management. The lower implementation rate suggests that these needs are not being adequately addressed within the AOP framework.

Implications of pillars specific disparities & recommendations to address disparities

The disparities across operational planning pillars have critical implications for the health system. High-performing pillars reflect areas where resources, planning, and execution have been aligned effectively. For example, the success of Health Promotion and Leadership and Governance suggests that investments in preventive care and leadership capacity are yielding positive outcomes. Conversely, the underperformance of pillars such as Partnership for Health and Health Infrastructure points to systemic weaknesses that limit the health system's ability to respond to emerging needs and crises. The low implementation rates in these pillars risk undermining progress in other areas, as an integrated and balanced approach is essential for long-term health system sustainability.

To address these disparities, targeted interventions are needed for underperforming pillars: (1) Strengthen Partnerships for Health: Establish formal frameworks for intersectoral collaboration, including clear roles, responsibilities, and accountability mechanisms for government agencies, private sector actors, and NGOs; Incentivize partnerships through performance-based funding or recognition programs to encourage active participation from diverse stakeholders. (2) Improve Public Health Emergency Preparedness: Invest in the development of early warning systems and emergency response protocols; Train health workers in crisis management and stockpile essential supplies for rapid deployment during emergencies; Strengthen coordination between local, state, and national health systems to ensure a unified response to public health crises. (3) Enhance Health Infrastructure: Prioritize funding for the construction and rehabilitation of healthcare facilities, especially in underserved LGAs; Ensure that new facilities are equipped with modern medical technologies and staffed by trained personnel; Develop and implement maintenance plans to ensure the sustainability of health infrastructure investments. (4) Address the Burden of Non-Communicable Diseases: Integrate NCD prevention and management programs into primary healthcare services; Conduct public awareness campaigns to promote healthy lifestyles and early

detection of NCDs; Allocate dedicated funding for NCD care, including diagnostic tools, medications, and specialist training.

The implementation of the 2023 Annual Operational Plan (AOP) for the 21 Local Government Areas (LGAs) in Kebbi State, Nigeria was supported by a budget of ₹1.26 billion, sourced from a combination of funding entities. These contributions reflect a collaborative effort among stakeholders, demonstrating the importance of shared responsibility in advancing local health system goals. However, the impact of these funding contributions varied across LGAs and operational pillars, underscoring the need for equitable distribution and efficient utilization of resources. The funds for the AOP were pooled from multiple sources, including government allocations, development partners, and local contributions. Each funding source likely had its own priorities and conditions, which influenced how resources were allocated and utilized. While this collaborative funding model underscores a commitment to shared responsibility, disparities in LGA performance suggest potential inequities in the allocation of these resources. LGAs that performed well, such as Bagudo and Gwandu, may have benefitted from a combination of adequate funding, effective local management, and alignment between resources and needs. Conversely, lower-performing LGAs, such as Zuru and Sakaba, may not have received sufficient financial support or encountered inefficiencies in resource utilization. These disparities highlight the need for a transparent and needs-based funding allocation mechanism to ensure that underresourced LGAs can meet their targets.

Based on the findings, the following recommendations are proposed to enhance future AOP implementation efforts: (1) Strengthen Underperforming Pillars: Partnership for Health: Develop stronger intersectoral collaboration frameworks by engaging nonhealth sectors, private entities, and civil society organizations. Establish clear accountability structures to monitor the progress of partnership initiatives. Public Health Emergencies: Invest in emergency preparedness by building early warning systems, training health workers in emergency response, and ensuring the availability of essential supplies for rapid deployment during crises. Health Infrastructure: Prioritize funding for infrastructure development in underperforming LGAs, focusing on constructing and maintaining essential facilities. Adopt a systematic approach to infrastructure upgrades to ensure sustainability. (2) Promote Equitable Resource Allocation: Conduct comprehensive needs assessments to guide the distribution of financial and technical resources. This ensures that under-resourced LGAs receive the support necessary to overcome implementation barriers. Establish performance-based funding mechanisms to incentivize LGAs to improve their implementation rates. (3) Enhance Local Leadership and Workforce Capacity: Provide targeted leadership and management training for LGHA members to strengthen their ability to coordinate and oversee AOP activities. Expand technical training programs for health workers to ensure they have the skills needed to deliver services across all operational pillars. (4) Leverage Digital Tools for Monitoring and Evaluation: Continue to use digital platforms, such as Google Sheets, for real-time tracking and visualization of implementation progress. Incorporate dashboard systems to allow stakeholders at the local and state levels to monitor performance and make data-driven decisions. (5) Foster Broader Stakeholder Engagement: Involve community representatives, healthcare workers, and beneficiaries in the planning and review processes. Their insights can provide a more comprehensive understanding of challenges and opportunities at the grassroots level. Strengthen feedback mechanisms that allow for continuous community input throughout the

implementation process. (6) Increase Accountability Mechanisms: Organize regular review meetings at the LGA and state levels to evaluate progress, identify bottlenecks, and implement corrective actions. Introduce performance benchmarks and public reporting systems to enhance transparency and accountability. (7) Strengthen Financial Sustainability: Diversify funding sources by engaging local businesses, philanthropic organizations, and international donors. Implement robust financial management systems to ensure transparency and alignment of expenditures with AOP priorities. (8) Conduct Further Research: Complement implementation tracking with qualitative studies to explore barriers and facilitators to perform in greater depth. Investigate the impact of external factors, such as policy changes or socioeconomic conditions, on AOP implementation.

This study exhibited several notable strengths. The use of a structured, monthly tracking methodology allowed for consistent and detailed monitoring of the implementation progress across the 21 LGAs, ensuring robust data collection. The collaborative engagement with Local Government Health Authority (LGHA) members fostered a sense of ownership and improved the accuracy and validity of the information gathered. Additionally, the comprehensive evaluation of diverse operational planning pillars provided a holistic understanding of the implementation process, highlighting both achievements and areas for improvement. The incorporation of a Google Sheetsbased tracker further streamlined data entry and analysis, enhancing efficiency while minimizing errors. Ultimately, the study generated actionable insights to guide strategic planning and resource allocation for future implementation efforts. Despite these strengths, the study had some limitations. The reliance on LGHA member availability and cooperation introduced variability in data quality, as their input was critical to the tracking process. While the study identified performance disparities, it did not delve deeply into the underlying causes, such as resource constraints or policy gaps. The involvement of data collectors during discussions with LGHA members also posed the risk of social desirability bias, potentially leading to over-reporting of achievements. Geographic clustering, though practical, may have inadvertently introduced biases due to variations in cluster dynamics. Furthermore, the study primarily focused on LGHA members and did not include perspectives from other critical stakeholders, such as community representatives or healthcare workers, which might have provided a broader context for the findings. In summary, while the study's design enabled a detailed and collaborative approach to tracking implementation, future research should address these limitations to ensure a more comprehensive understanding of the factors influencing operational plan execution.

Conclusion

The implementation of the 2023 Annual Operational Plan (AOP) across the 21 Local Government Areas (LGAs) in Kebbi State, Nigeria demonstrated commendable achievements, with most LGAs achieving implementation rates above 80%. High-performing pillars such as Health Promotion and Leadership and Governance underscore the importance of prioritizing strategic areas in operational planning. However, the relatively lower performance in pillars like Partnership for Health, Public Health Emergencies, and Health Infrastructure highlights systemic challenges and resource gaps that need to be addressed. Geographic disparities in LGA performance suggest that proximity-based clustering and localized resource allocation play critical

roles in implementation success. Collaborative engagement with Local Government Health Authorities (LGHAs) proved instrumental in fostering ownership and ensuring reliable tracking of AOP activities. To enhance future implementation efforts, targeted interventions focusing on underperforming pillars, equitable resource distribution, and strengthening partnerships are essential. These findings provide actionable insights to guide strategic planning and resource prioritization, ultimately contributing to the sustainability and effectiveness of primary healthcare services in Nigeria.

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Conflict of interest

The authors confirm that there is no conflict of interest between any parties involved in this research study.

REFERENCES

- [1] Adam, A., Fusheini, A., Kipo-Sunyehzi, D.D. (2021): A collaborative health promotion approach to improve rural health delivery and health outcomes in Ghana: a case example of a community-based health planning and services (CHPS) strategy. In Rural Health, IntechOpen 28p.
- [2] Adetunji, A., Addo, B., Abegunde, D., Kalamar, A., Tulsiani, N.J., Sripad, P., Oyedokun-Adegbabo, F., Ankomah, A. (2025): Improving health outcomes by strengthening public sector capacity in social and behaviour change programming in Nigeria: a qualitative study. BMJ Open 15(1): 11p.
- [3] AlTaweel, I.R., Al-Hawary, S.I. (2021): The mediating role of innovation capability on the relationship between strategic agility and organizational performance. Sustainability 13(14): 14p.
- [4] Al-Assaf, K., Alzahmi, W., Alshaikh, R., Bahroun, Z., Ahmed, V. (2024): The relative importance of key factors for integrating Enterprise Resource Planning (ERP) systems and performance management practices in the UAE Healthcare Sector. Big Data and Cognitive Computing 8(9): 33p.
- [5] Al Awaidy, S.T., Khamis, F., Al Attar, F., Razzaq, N.A., Al Dabal, L., Al Enani, M., Alfouzan, W., Al Maslamani, M., Al Romaihi, H., Al Salman, J., Altawalah, H. (2021): COVID-19 in the Gulf Cooperation Council member states: an evidence of effective response. Oman Medical Journal 36(5): 8p.
- [6] Al Kurdi, B., Alshurideh, M., Akour, I., Tariq, E., Alhamad, A., Alzoubi, H.M. (2022): The effect of social media influencers' characteristics on consumer intention and attitude toward Keto products purchase intention. International Journal of Data and Network Science 6(4): 1135-1146.
- [7] Arfi, W.B., Nasr, I.B., Kondrateva, G., Hikkerova, L. (2021): The role of trust in intention to use the IoT in eHealth: Application of the modified UTAUT in a consumer context. Technological Forecasting and Social Change 167: 15p.
- [8] Aruleba, K., Jere, N. (2022): Exploring digital transforming challenges in rural areas of South Africa through a systematic review of empirical studies. Scientific African 16: 13p.

- [9] Badewa, A.S., Dinbabo, M.F. (2023): Multisectoral intervention on food security in complex emergencies: a discourse on regional resilience praxis in Northeast Nigeria. GeoJournal 88(2): 1231-1250.
- [10] Balogun, J.A. (2022): The vulnerabilities of the Nigerian healthcare system. In The Nigerian healthcare System: Pathway to Universal and High-Quality Health Care, Cham: Springer International Publishing 35p.
- [11] Belay, T., Chugunov, D., Dahal, M., De Simone, M.E., Gafar, A., Isser, D., Nweje, I.J., Okunola, O.O., Parajuli, D., Pradhan, E. (2024): Human Capital Public Expenditure and Institutional Review-An analysis of financing and governace constraints for the delievry of basic education and primary health care in Nigeria. World Bank 106p.
- [12] Chidi, E.N., Ukorah, C.P., Ifeoma, C.N., Ifeoma, P.U. (2023): Social injustice and the threat of insurgency in Nigeria: An evaluation. International Journal of Social Science and Management Studies 2(4): 1-13.
- [13] Elemuwa, C.O., Ainu, M., Adias, T.C., Ufuoma, R.S., Sunday, O.A., Elemuwa, U.G., Henshaw, A., Adebisi, O.L., Oyetunde, A.B., Raimi, M.O. (2024): Transforming primary healthcare in Nigeria: Enhancing universal health coverage through strong and sustainable primary healthcare laboratories. Qeios 31p.
- [14] Grieco, L., Utley, M., Crowe, S. (2021): Operational research applied to decisions in home health care: A systematic literature review. Journal of the Operational Research Society 72(9): 1960-1991.
- [15] Kotharkar, R., Ghosh, A. (2022): Progress in extreme heat management and warning systems: A systematic review of heat-health action plans (1995-2020). Sustainable Cities and Society 76: 25p.
- [16] Lawal, I.K., Suleiman, A.K., Bagudu, Z., Kanmodi, K.K., Abdulsalam, G.A., Olakunle, O.S. (2021): Planning and advocating for cervical cancer prevention in Kebbi State, Nigeria: Learning points for the global call to eliminate cervical cancer. International Journal of Gynecology & Obstetrics 152(1): 26-31.
- [17] Mohammed, Y., Reynolds, H.W., Waziri, H., Attahiru, A., Olowo-Okere, A., Kamateeka, M., Waziri, N.E., Garba, A.M., Corrêa, G.C., Garba, R., Vollmer, N. (2024): Exploring the landscape of routine immunization in Nigeria: A scoping review of barriers and facilitators. Vaccine: X 20: 13p.
- [18] Mustafa, S., Zhang, Y., Zibwowa, Z., Seifeldin, R., Ako-Egbe, L., McDarby, G., Kelley, E., Saikat, S. (2022): COVID-19 Preparedness and Response Plans from 106 countries: a review from a health systems resilience perspective. Health Policy and Planning 37(2): 255-268.
- [19] Nakayama, L.F., Binotti, W.W., Link Woite, N., Fernandes, C.O., Alfonso, P.G., Celi, L.A., Regatieri, C.V. (2023): The digital divide in Brazil and barriers to telehealth and equal digital health care: analysis of internet access using publicly available data. Journal of Medical Internet Research 25: 10p.
- [20] Olazabal, M., De Gopegui, M.R. (2021): Adaptation planning in large cities is unlikely to be effective. Landscape and Urban Planning 206: 18p.
- [21] Pereira, R.H., Braga, C.K.V., Servo, L.M., Serra, B., Amaral, P., Gouveia, N., Paez, A. (2021): Geographic access to COVID-19 healthcare in Brazil using a balanced float catchment area approach. Social Science & Medicine 273: 13p.
- [22] Stefanakis, A.I., Calheiros, C.S., Nikolaou, I. (2021): Nature-based solutions as a tool in the new circular economic model for climate change adaptation. Circular Economy and Sustainability 1: 303-318.
- [23] Towoju, F.V. (2023): Exploring the role of socio-economic and cultural factors influencing the occurrence of VVF in Northern Nigeria. Manchester Metropolitan University 435p.
- [24] World Health Organization (WHO) (2021a): Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: recommendations for a public health approach. World Health Organization 594p.

[25] World Health Organization (WHO) (2021b): Global patient safety action plan 2021-2030: towards eliminating avoidable harm in health care. – World Health Organization 108p.