



MATERNAL AND CHILD HEALTH SERVICE UTILIZATION IN JOS NORTH AND SOUTH, PLATEAU STATE, NIGERIA: A QUALITATIVE REVIEW AND EVIDENCE SYNTHESIS

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Abstract:

Maternal and child health (MCH) is a key public health issue in Nigeria, and Plateau State shows very low levels of MCH service utilization. In this review, we took stock of MCH utilization, determinants and perceptions in Jos North/South Local Government Areas (LGAs) as at 2019–2026. Using a qualitative review methodology, the study consolidates evidence derived from academic databases namely PubMed, ScienceDirect and ResearchGate along with reports published by World Health Organization (WHO) and UNICEF. The study findings demonstrated that although the perception on overall quality of antenatal care (ANC) in tertiary facilities like the Plateau State Specialist Hospital was generally positive, it still differed widely among rural and peri-urban communities. The main barriers to use were socio-economic factors, cultural beliefs in favour of traditional birth attendants (TBAs) and systemic barriers, such as poor primary health care (PHC) infrastructure. On the other hand, health education and community-based interventions such as the ANRiN project are essential enablers. In the paper, we conclude that overcoming demand-side cultural barriers and improving facility availability is required to achieve universal health coverage in Jos.

Keywords: Maternal Health, Child Health, Service Utilization, Jos, Plateau State, Nigeria, Qualitative Review.

1.1 INTRODUCTION

Global maternal and child health (MCH) scenario have improved significantly over the past 10 years but sub-Saharan Africa, particularly Nigeria is still battling with high morbidities and mortalities (World Health Organization, 2023). Nigeria continues to be among the highest contributor to the global burden of maternal and under-five mortality, as recent reports suggest that it ranks among countries with high preventable deaths (UNICEF 2024). In Nigeria, this is reflected in significant regional disparities, with the North generally characterised by lower levels of formal health services uptake compared to the South (National Population Commission & ICF, 2019). Plateau State is part of the North-Central zone and has a unique case study in urban centers such as Jos North and South amid neglected rural communities, leading to diverse health-seeking behavioral patterns.

Use of maternal and child health (MCH) services (antenatal care (ANC), skilled birth attendance (SBA), postnatal care (PNC) and childhood immunization) is one of the main determinants for mothers' as well as children's health outcomes. However, socio-economic status and health-seeking behaviour are not mutually exclusive as in Jos North and South (Hausa, Berom and others by ethnicity), cultural diversity, including class differences have significant impact on accessibility or availability of healthcare infrastructure (Bassey 2024). Also, despite a thriving network of tertiary institutions and many primary health care (PHC) centers, Plateau State continues to experience high rates of maternal mortality estimated at 905 per 100000 live births in a recent appraisal Nigeria Health Watch (2025). The gap between services available and utilized is of vital throughput.

This review is intended to analyze recent evidence (2019–2026) about MCH utilization in Jos North and South. Through a qualitative perspective, the study aims to explore beyond statistics in order to unpack the lived experiences, perceptions and barriers shaping MCH landscape within these regions. Such a question is important for policymakers and public health practitioners who seek to inform culturally relevant and structurally appropriate interventions aimed at improving health

1.2 Research Objectives

The primary objective of this review is to provide a comprehensive analysis of maternal and child health (MCH) service utilization in Jos North and South, Plateau State. Specifically, the study seeks:

- i. To evaluate the current status of MCH service utilization (ANC, SBA, and immunization) in Jos North and South.
- ii. To identify the socio-economic, cultural, and systemic factors that influence the utilization of these services.
- iii. To examine the perceptions of quality and levels of satisfaction among mothers accessing MCH services in the study areas.
- iv. To propose evidence-based recommendations for enhancing MCH service uptake in Plateau State.

1.3 Research Questions

To achieve the aforementioned objectives, this review addresses the following questions:

- i. What are the prevailing patterns of MCH service utilization in Jos North and South between 2019 and 2026?
- ii. What are the primary barriers (socio-economic, cultural, and systemic) hindering the utilization of MCH services in these LGAs?
- iii. How do mothers in Jos North and South perceive the quality of care provided at various levels of the health system?
- iv. What strategies have proven effective in facilitating MCH service utilization in similar contexts?

2. LITERATURE REVIEW

2.1 Conceptual Review

The current situation of MCH service utilization (ANC, SBA and immunization) in Jos North and South.

This is characterised by carefully mapping the patterns and level of usage for specific maternal and child health (MCH) services (antenatal care [ANC], skilled birth attendance [SBA] and childhood immunization) at the major urban–peripheral disparity in Jos North and South. This adds value by establishing a baseline understanding of service uptake, showing gaps in availability (Olaoye et al., 2023; ResearchGate, 2019) and focusing on where to target interventions.

The socio-economic, cultural and systemic factors that affect people`s use of these types of services.

This goal explores the plethora of determinants influencing MCH service utilization. It attempts to reveal the complexity of socio-economic factors (ResearchGate, 2019) combined with discriminatory cultural norms and practices (ResearchGate, 2019; Research Publish, 2024) coupled with structural failures in the healthcare system (Frontiers in Public Health, 2025; Research Publish, 2024). This understanding is key to making context-specific effective intervention.

The perceptions of quality and levels of satisfaction reported by mothers who accessed MCH services in the study areas.

This study addresses the demand-side perspective, including how mothers perceive care's quality and their satisfaction with MCH services. It explores dimensions like provider-client interactions, waiting times, perceived effectiveness of treatments and physical facility environment. Understanding perceptions such as these can be significant for delivery of services in a way that meets community expectations and promotes trust within the formal health system (Olaoye et al., 2023).

Evidence-based recommendations to improve MCH service uptake in Plateau State.

Based on the evaluation and analysis of the previous objectives, this final objective will produce practical evidence-based recommendations. This guide includes recommendations to better address the identified barriers and to leverage facilitators, while also supporting strategies that can increase MCH service uptake across Plateau State. These recommendations will be context-appropriate, serving as evidence-based interventions for policy makers, implementors and community members involved in maternal and child health efforts ultimately with the aim of improving reproductive and maternal health practices in Nigeria (PMC, 2022; Nigeria Health Watch, 2025).

2.2 Theoretical Framework

Understanding the reasons why mothers and children in places like Jos use or avoid health services requires a solid theoretical foundation. This review primarily draws upon the Three Delays Model by Thaddeus and Maine, which categorises delays into three stages: the initial decision to seek care, the journey to a healthcare facility, and obtaining appropriate treatment once there (Thaddeus & Maine, 1994). For example, a woman in rural Jos North may delay seeking help due to cultural beliefs about pregnancy, face transportation issues because of poor roads, and experience long waits for treatment in understaffed facilities.

Transitioning from these theoretical perspectives, it is important to consider how they inform recent findings related to maternal and child health in Nigeria and Plateau State.

2.3 Empirical Review of MCH in Nigeria and Plateau State

Despite improvements in antenatal care (ANC) coverage in Nigeria, the proportion of births in health facilities remains low, particularly in northern Nigeria (Factors consistently associated with utilisation of essential maternal and child health services in Nigeria: analysis of the five Nigerian national household surveys (2003–2018), 2022). At Plateau State Specialist Hospital, a 2023 probe showed that city moms like ANC when nurses build trust and spot risks early—like preeclampsia in a routine check (Olaoye et al., 2023). In Jos South’s Koghum village, most births are attended by traditional birth attendants, as

women tend to avoid hospitals, perceiving them as stark and impersonal. This pattern aligns with broader trends in Nigeria, where the prevalence of home delivery among young mothers aged 15–24 is 69.5%, rising to 78.9% in rural areas (Adewuyi et al., 2019).

On the children's side, immunisation coverage remains inconsistent. Jos North's close proximity to major hospitals facilitates access, yet parental reluctance to immunise children often stems from rumours or the inability to reach distant facilities, reflecting patterns of vaccine hesitancy observed in regions like Kaduna during outbreaks (Assessing the determinants of uptake and hesitancy in accessing COVID-19 vaccines in Nigeria: a scoping review, 2025). In Jos South, the 2024 PMTCT review revealed that while HIV services are available on paper, stigma and frequent stockouts of testing kits have reduced service uptake, paralleling challenges documented across Nigeria (Assessing the determinants of uptake and hesitancy in accessing COVID-19 vaccines in Nigeria: a scoping review, 2025).

3. METHODOLOGY

This study adopted a qualitative review and evidence synthesis design. This is distinct from quantitative meta-analyses, which seek pooled statistical measures, as this qualitative analytic technique highlights the thematic synthesis of findings across diverse sources. This approach offers a nuanced understanding of the reasons behind and mechanisms through which MCH utilisation patterns emerge (PMC, 2022).

3.1 Search strategy and data sources

An organized exploration was performed in many high-impact stages: PubMed, ScienceDirect, ResearchGate, and Google Scholar. We also reviewed grey literature and reports from the World Health Organisation (WHO), United Nations Children's Fund (UNICEF) and Plateau State Ministry of Health. The search was further limited to publications from 2019 to 2026, to provide contemporary and relevant data. Key search terms were found under the headings of “Maternal Health,” “Child Health,” “Service

Utilisation,” and, geographical location, as well as Jos North, Jos South and Plateau State Nigeria.

3.2 Inclusion and Exclusion Criteria

Studies included (1) studied MCH utilisation in Jos North, Jos South or Plateau State; (2) were published over the period 2019 to 2026; and (3) reported qualitative insights or empirical data on barriers, facilitators or care perceptions. Quantitative studies were included only when they provided descriptive data for qualitative synthesis. Studies were excluded if they were older than 2019, included clinical trials only without a utilisation component or not available in the English language.

3.3 Data Synthesis and Analysis

Data were analysed with thematic synthesis. These included three phases: free line-by-line coding of findings from primary studies, aggregation into related “descriptive themes” and articulation of the “analytical themes”. These analytical themes move beyond the primary studies and speak to the research questions of this review (Thomas & Harden, 2008). This approach to synthesis is always embedded in the original evidence and provides a higher-order academic transformation which is publishable in the pages of international journals.

4. RESULTS

The qualitative synthesis of findings from primary studies in Jos North and South, Plateau State, reveals a complex MCH landscape characterised by significant disparities between urban and rural areas. The following results are categorised based on the analytical themes derived from the literature.

4.1 Patterns of MCH Service Utilisation

In urban Jos North, ANC utilisation is relatively high, with studies at the Plateau State Specialist Hospital showing that a majority of pregnant women (over 90% in some samples) attend at least one ANC visit (Olaoye et al., 2023). However, the transition from ANC to institutional delivery remains a challenge. In Jos South, particularly in

communities like Koghum, utilisation of formal ANC services is significantly lower, with a strong preference for home delivery assisted by traditional birth attendants (TBAs) (ResearchGate, 2019). Childhood immunisation in both LGAs shows a "drop-off" effect, where the initial uptake of BCG is high, but subsequent doses of Pentavalent and Measles vaccines see declining completion rates due to logistical and socio-economic barriers (Frontiers in Public Health, 2025).

4.2 Barriers to MCH Utilisation

The review identifies three primary clusters of barriers. **Socio-economic Barriers:** High costs from hospital bills, even when services are ostensibly free, remain a deterrent. Transportation costs and "hidden costs" of drugs and supplies make this worse (ResearchGate, 2019).

Cultural and Behavioural Barriers: In Jos North, cultural norms among the Hausa and other ethnic groups often prioritise the decision-making power of husbands or elders, which can delay seeking care (Research Publish, 2024). In Jos South, deep-seated trust in TBAs and cultural beliefs about the "naturalness" of home birth hinder institutional delivery (ResearchGate, 2019).

Systemic and Facility-level Barriers: Shortages of skilled health workers, long waiting times, and unfriendly staff attitudes were often cited as major reasons for dissatisfaction (Olaoye et al., 2023). In Jos South PHCs, the inconsistent availability of essential supplies for PMTCT and childhood vaccines remains a systemic failure (Research Publish, 2024).

4.3 Perceptions of Quality and Satisfaction

Mothers in Jos generally perceive tertiary facilities more favourably than primary healthcare centres. At the Plateau State Specialist Hospital, women reported high levels of satisfaction (mean score 6.50/9), citing early detection of complications and the quality of health information received as key positives (Olaoye et al., 2023). However, negative perceptions persist regarding the time spent in clinics and the perceived "judgmental" attitudes of midwives in some PHC settings (Olaoye et al., 2023).

5. DISCUSSION

Findings of this review reveal a considerable mismatch between the supply of maternal and child health services and their effective use in Jos North and South. Olaoye et al. were quoted saying that higher quality of antenatal care (ANC) reported in the tertiary hospitals Lugano (2023), women are more likely to seek out care if they perceive services high in quality and specialised. This finding is in line with Andersen's Behavioural Model whereby "perceived need" and especially "perceived benefit", were strong determinants of utilisation. However, this rosy picture of urban life is not universal as evident from the yet staggering maternal mortality rate in Plateau State (905/100,000 live births) (Nigeria Health Watch 2025).

One useful framework for the interpretation of results from rural Jos South is known as the Three Delays Model. Koghum's preference for TBAs is that Type 1 Delay, where there is a delay in the decision to seek care. This delay can be often attributed to cultural familiarity and the feeling that clinical environments are devoid of personality (ResearchGate, 2019). This finding is especially significant for Plateau State public health practitioners. Simply increasing clinics (supply-side) without acknowledging cultural perceptions (demand-side) will not lead to the desired health outcomes. The Type 3 Delay, arising from delays in receiving adequate care, is caused by systemic shortages of essential drugs and trained human resource availability at primary health centres (PHCs). These shortages make the formal health system even less trustworthy (Research Publish, 2024).

The findings from Jos North and South followed national trends when compared with the wider Nigerian context. Urban-rural heterogeneity and socio-economic context are still the major determinants for MCH service utilisation (BMJ Open, 2022) As described in reports from 2022, the COVID-19 pandemic exerted additional stress on already weak health systems and caused a temporary drop in immunisation and antenatal care (ANC) attendance (PMC, 2022). However, community-based interventions such as the Accelerating Nutrition Results in Nigeria (ANRiN) project may hold a promise by providing crucial nutrition and health services directly at the community level (Nigeria Health Watch, 2025).

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

Jos North and South, Plateau State maternal and child health utilisation patterns is a complex interplay of socio-economic, cultural and systemic factors. Although urban areas such as Jos North shed good levels of ANC attendance and satisfaction but rural and peri-urban settings in Jos South are underserved and far from the health system. The sky-high maternal mortality rate in the state is a sobering reminder that tertiary health institutions are useless unless there is an efficient primary healthcare system to fall back upon so that no mother or child can be left behind.

6.2 Recommendations

The following recommendations are made based on the synthesised evidence:

Revitalisation of Primary Healthcare (PHC): The Plateau State Government should focus on the provision of essential drugs, vaccines and skilled personnel to PHCs in Jos South and North to lower the "Type 3 Delay" within this district. Integrate Traditional Birth Attendants as referral agents in public health programs to promote institutional delivery while recognizing local cultural norms.

Economic Support and Health Insurance: Strengthening PLASHEMA coverage amongst vulnerable women in Jos would help reducing socio-economic barriers to MCH service access.

Targeted Health Education: Launch more robust, community-based health education campaigns that highlight the value of early ANC and the need for complete immunisation schedules while targeting them towards husbands and other community leaders.

Quality of Care Improvements: Regular training on “patient-centred care” for health workers can help to improve the provider-client relationship and address women’s poor perceptions that deter them from seeking formal care.

REFERENCES

- Andersen, R. M. (1995). A look back at the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior*, 36 (1), 1–10.
- Bassey, G. M. (2024). Determinants of maternal health service utilization in Plateau State, Nigeria. *Texila International Journal of Public Health*, 12(1).
- BMJ Open. (2022). An overview of Nigeria's progress on the continuum of RMNCH services. *BMJ Open*, 12(7), e061595.
- Frontiers in Public Health. (2025). Access to MNCH services in Nigeria: Barriers and facilitators *Frontiers in Public Health*, 13.
- National Population Commission (NPC) [Nigeria], and IC Maternal and Child Health Service UtilizationF. (2019). *Nigeria Demographic and Health Survey 2018*. NPC; ICF.
- Nigeria Health Watch. (2025, April 16). Nigerian contribution to the progress of Global Health:An overview from Plateau State. <https://sjai.nigeriahealthwatch.com/>
- Olaoye, T., Oyerinde, O., Aguiyi, C., & Mercy, O. (2023). Antennatal care services are vital to pregnant women during pregnancy period they need the support of health professionals, but at times there is a perception about quality services among pregnant women. *African Health Sciences*, 23(3), 37–44.
- Olaoye, T., Oyerinde, O., Aguiyi, C. & Mercy, O. (2023): Perception and level of satisfaction with the quality of antenatal care services among pregnant women attending antenatal clinic at Plateau State Specialist Hospital, Jos, Nigeria. *African Health Sciences*, 23(3), 37–44.
- PMC. (2022). Access to maternal, newborn and child health services during COVID-19 in Nigeria: Barriers and facilitators PMC9073814.

- Research Publish. (2024). Published description: PMTCT services availability and utilization in Primary Health Care centres of Jos South, Plateu State. International Journal of Healthcare and Medical Sciences.
- ResearchGate. (2019). Determinants of use of antenatal care services and institutional delivery at Koghum in Jos South, Plateau State, Nigeria. International Journal of Research and Innovation in Social Science
- S, Thaddeus & D. Maine (1994). Not just the walk itself: Context and maternal mortality. Social Science & Medicine 38(8): 1091–1110.
- Thomas, J., & Harden, A. (2008). Thematic synthesis of qualitative research in systematic reviews. BMC Medical Research Methodology, 8(45).
- UNICEF. (2024). Situation analysis of children and adolescents in Nigeria UNICEF.
- World Health Organization. (2023). Improving maternal and newborn health and survival, and reducing stillbirth: Progress report 2023. World Health Organization.