Journal of Health and Medical Sciences

Oshaji, P., Nwangwu, C., Mohammed, O. A., Filani, O., & Doherty, C., Zonna, F., Ojogwu, O., Mahmud, B. (2026). Factors Associated with the Decline in Health Facility Utilization for Childbirth in Ekiti State, Nigeria: Empirical Evidence from a Mixed-Methods Survey. *Journal of Health and Medical Sciences*, 9(3), 49-60.

ISSN 2622-7258

DOI: 10.31014/aior.1994.09.03.260

The online version of this article can be found at:
https://www.asianinstituteofresearch.org/

Published by:
The Asian Institute of Research

The Asian Institute of Research *Journal of Health and Medical Sciences* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of Medicine and Public Health, including medicine, surgery, ophthalmology, gynecology and obstetrics, psychiatry, anesthesia, pediatrics, orthopedics, microbiology, pathology and laboratory medicine, medical education, research methodology, forensic medicine, medical ethics, community medicine, public health, community health, behavioral health, health policy, health service, health education, health economics, medical ethics, health protection, environmental health, and equity in health. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The *Journal of Health and Medical Sciences* aims to facilitate scholarly work on recent theoretical and practical aspects of Health and Medical Sciences.

ASIAN INSTITUTE OF RESEARCH
Connecting Scholars Worldwide

ASIAN INSTITUTE OF RESEARCH
Connecting Scholars Worldwide

The Asian Institute of Research
Journal of Health and Medical Sciences
Vol.9, No.3, 2026: 49-60
ISSN 2622-7258

DOI: 10.31014/aior.1994.09.03.260

Factors Associated with the Decline in Health Facility Utilization for Childbirth in Ekiti State, Nigeria: Empirical Evidence from a Mixed-Methods Survey

Peter Oshaji[1], Chike Nwangwu[1], Oluwaseyi A. Mohammed[1], Oyebanji Filani[2], Charles Doherty[3], Fatima Zonna[4], Onyeka Ojogwu[4], & Bashir Mahmud[4]

[1] NOIPolls Limited, Abuja, Federal Capital Territory, Nigeria
[2] Ekiti State Ministry of Health, Ado-Ekiti, Ekiti State, Nigeria
[3] Ekiti State Health Insurance Agency, Ado-Ekiti, Ekiti State, Nigeria
[4]GIZ, Nigeria

Abstract
Introduction: Despite targeted investments in maternal health services, Ekiti State, Nigeria, has experienced a decline in health facility-based deliveries. This study explores the contextual factors influencing the non-utilization of health facilities for deliveries as well as evaluates the vulnerability factors that influence general health-seeking behaviour by women of childbearing age in Ekiti State. Methods: A comprehensive mixed-methods evaluation involving desk reviews, quantitative household surveys, and stakeholder interviews was adopted for the study. Local government areas with the highest trends in drop-off for facility deliveries informed the selection of the six study sites. The quantitative household survey involved 529 respondents and collected data on sociodemographic characteristics, past delivery experiences, perceptions of maternal healthcare services, and the drivers of women's choice of place of delivery. The qualitative component provided deeper insights into stakeholders' perspectives and the contextual factors influencing delivery decisions. Findings: Key findings indicate that the most significant determinant for delivery decisions is spousal influence, whilst the provision of respectful maternal care (RMC) is an additional factor. A follow-up study engaging male partners through Computer-Assisted Telephone Interviewing (CATI) revealed that 50% of men whose wives delivered outside health facilities cited “cost of care” as the main barrier. Other factors included parental pressure, religious beliefs, and the appeal of traditional birth attendants (TBAs). Conclusion: Addressing the identified factors through policy interventions, community engagement, and health system improvements is essential to reversing the decline in facility deliveries and improving maternal and neonatal outcomes in Ekiti State. Actionable recommendations are provided to enhance service quality, build community trust, and strengthen referral pathways.

Keywords: Maternal Health, Facility-Based Deliveries, Spousal Influence, Cost of Care, Traditional Birth Attendants, Nigeria, Mixed-Methods Survey

1. Introduction

Despite decades of policy attention and investment, maternal mortality remains a persistent public health challenge in sub-Saharan Africa, where over two-thirds of global maternal deaths occur annually (WHO, 2022; Say et al., 2014). Nigeria, as Africa's most populous country, accounts for nearly 20% of these deaths, with an estimated maternal mortality ratio (MMR) of 512 per 100,000 live births as of 2021 (NDHS, 2021; WHO, 2022). These figures are particularly concerning given that most maternal deaths are preventable through timely access to quality antenatal care (ANC), skilled birth attendance, and postnatal care (Campbell & Graham, 2006; Montagu et al., 2011).

Utilization of maternal health services in Nigeria has improved only modestly over the past two decades, with persistent gaps in facility-based childbirth. Nationally, the proportion of births occurring in health facilities increased from about one-third in the early 2000s to 39.4% in 2018, reflecting slow progress despite repeated policy efforts to improve maternal health service uptake (NDHS 2003; NDHS 2008; NDHS 2013; NDHS 2018 & NDHS, 2023). Between 2013 and 2018 alone, facility delivery increased only marginally from 35.8% to 39.4% nationally. However, this national trend masks important subnational variations, including reversals in states that had previously recorded relatively high levels of maternal service utilization. In Ekiti State, evidence from the NDHS trend suggests that facility-based delivery declined between 2013, 2018, and 2023 despite relatively high antenatal care coverage. This pattern reflects a critical "continuum-of-care drop-off," where contact with the formal health system during pregnancy does not consistently translate into childbirth in a health facility. The Ekiti paradox is therefore not merely one of low service awareness or low ANC contact, but of women disengaging from facility-based care at the point of delivery. Understanding the socio-economic, health-system, cultural, and experiential factors driving this decline is essential for designing interventions that go beyond ANC attendance to address the barriers that shape women's final choice of place of birth.

While national and state governments have prioritized increasing service availability, evidence suggests that access alone is insufficient. The persistent gap between ANC attendance and institutional delivery underscores the need to understand what prevents women from transitioning to facility-based births even after engaging with the health system. This transition is a critical inflexion point in the maternal health continuum, where household dynamics, perceptions of care, and financial considerations often override clinical recommendations or public health messaging. If policy interventions continue to treat supply-side constraints as the sole barrier, they risk failing the very women they are designed to protect.

This study seeks to move beyond surface-level statistics by examining the deeper structural and contextual determinants of delivery location in Ekiti State. In particular, it investigates how household financial constraints and spousal decision-making power intersect to influence maternal health-seeking behaviour. These factors are especially salient in southwestern Nigeria, where traditional gender norms remain entrenched, and economic hardship disproportionately affects rural households. By foregrounding these issues, this research contributes to a more grounded and actionable understanding of maternal health service utilization, with implications for program design, policy reform, and future research.

2. Review Related Literature

2.1 Trends in Maternal Health in Sub-Saharan Africa and Nigeria

Sub-Saharan Africa remains the epicentre of the global maternal mortality crisis, with mortality ratios exceeding 500 deaths per 100,000 live births in some countries (WHO, 2022). Nigeria contributes nearly 25% of all maternal deaths in the region, reflecting deep systemic issues in access, quality, and continuity of care (UNFPA, 2022; FMoH, 2020). Despite multiple health sector reforms and global commitments like the Sustainable Development Goals (SDGs) and Every Woman Every Child initiative, maternal mortality remains unacceptably high.

There has been notable progress in increasing antenatal care (ANC) attendance and skilled birth attendance (SBA). For example, national ANC coverage in Nigeria rose from 58% in 2013 to 67% in 2021, while SBA increased from 43% to 50% over the same period (NPC & ICF, 2023). However, these improvements have not always

translated into increased facility-based deliveries, particularly in states like Ekiti. A growing number of women receive ANC from skilled providers but still opt to deliver at home, often assisted by traditional birth attendants (TBAs) (Fagbamigbe et al., 2017; Okonofua et al., 2018). This paradox signals deeper barriers beyond access—related to experience of care, socio-cultural factors, and trust in the health system.

2.2 Barriers to Facility-Based Deliveries

A wide range of barriers undermine women's access to facility-based deliveries.

Economic barriers—including formal user fees, cost of transportation, and opportunity costs (e.g., lost income, childcare)—disproportionately affect low-income households and rural populations (Borghi et al., 2006; Kruk et al., 2010). In rural Nigeria, financial constraints were identified as the top reason for home births by Ononokpono and Odimegwu (2014).

Cultural norms and gender dynamics add a further layer of constraint. In many communities, childbirth is considered a routine, natural process best handled within the home or by familiar caregivers. Patriarchal structures often assign decision-making authority to male partners or elder relatives, limiting women's autonomy to choose institutional care (Adamu & Salihu, 2002; Osubor et al., 2006; Izugbara et al., 2020). These social expectations remain deeply entrenched even among educated or urban households.

Spousal influence, in particular, has been recognized as a decisive factor in maternal health service utilization. Men's perceptions of cost, necessity, and quality of care directly shape whether their partners deliver in health facilities (Yaya et al., 2018; Doctor et al., 2019). In settings where men dominate household decisions, the likelihood of facility-based delivery rises significantly if the male partner is positively inclined toward skilled maternity care.

However, even when women do reach health facilities, the experience of care itself can be a powerful deterrent to return or recommend facility use. This brings into focus the emerging priority of Respectful Maternity Care (RMC). RMC refers to care that upholds the dignity, privacy, and autonomy of women, avoids harm or mistreatment, and ensures informed consent and continuous support during childbirth (WHO, 2018). In Nigeria, reports of verbal abuse, neglect, denial of care, and discrimination remain widespread and underreported (Bohren et al., 2015; Okafor et al., 2020). These experiences can shape women's future health-seeking behaviour and ripple through communities via word of mouth.

Neglecting the importance of RMC risks undermining gains in coverage. Women may opt for TBAs not only because of proximity or affordability but because these caregivers often provide emotional support, familiarity, and respectful interactions, qualities sometimes lacking in overstretched health facilities. As such, poor experience of care should be viewed not just as a quality issue, but as a structural barrier to maternal survival.

2.3 The Role of Antenatal Care and Health Education

ANC remains a critical entry point into the formal health system, offering opportunities for early risk detection, health promotion, and preparation for skilled birth attendance (Tura et al., 2013; Moyer & Mustafa, 2013). However, its impact on subsequent delivery choices hinges on the quality and content of services received. Several studies report that when ANC is limited to routine checks without meaningful education on birth preparedness, danger signs, or the benefits of skilled care, its influence on delivery behaviour is minimal (Bohren et al., 2014; Warren et al., 2017).

Furthermore, the engagement of male partners during ANC has been shown to increase women's likelihood of delivering in a facility. Community-based interventions that include men, through education campaigns, peer groups, or counselling, have successfully increased demand for skilled care (Ditekemena et al., 2012; Mullany et al., 2007). These strategies also promote more equitable decision-making, gradually shifting patriarchal norms.

Ultimately, bridging the gap between ANC and facility-based delivery requires a holistic approach that addresses both clinical care and the interpersonal dynamics within health systems. This includes strengthening RMC, promoting birth preparedness, engaging families and communities, and ensuring that every touchpoint, particularly ANC, is leveraged to build trust and continuity in maternal care

3. Methodology

3.1 Study Design

A cross-sectional mixed-methods design was used to explore the factors influencing facility-based deliveries in Ekiti State. This approach allowed triangulation of quantitative and qualitative data, enabling a more robust understanding of both measurable trends and contextual nuances (Creswell & Plano Clark, 2017).

3.2 Desk Review

Secondary data from the District Health Information System (DHIS 2) and other government sources were analyzed to identify patterns in ANC attendance, facility deliveries, and postnatal care (PNC) coverage across LGAs [FMoH/DHIS 2, 2023]. This analysis informed the selection of high-priority LGAs for deeper investigation.

3.3 Quantitative Household Survey

A structured questionnaire was administered to 529 women of reproductive age (15–49 years) across six LGAs exhibiting the most significant drop-off between ANC and facility-based deliveries. The survey instrument, adapted from previous validated maternal health tools (MEASURE DHS, 2019), captured demographic details, delivery history, health-seeking behaviours, and perceptions of healthcare quality. Data were analyzed using SPSS, with chi-square and logistic regression techniques used to assess associations between sociodemographic variables and delivery location.

3.4 Qualitative Interviews and Focus Group Discussions

To explore cultural, social, and systemic factors in-depth, key informant interviews (KIIs) and focus group discussions (FGDs) were conducted with community stakeholders, including health workers, TBAs, religious leaders, and local government officials. Thematic analysis was carried out using Atlas.ti software, following a grounded theory approach (Strauss & Corbin, 1998). Codes were developed both inductively and deductively based on emerging themes and the study objectives.

3.5 Measurement of Respectful Maternal Care

The Mothers on Respect Index (MORi) was employed to measure the level of respectful maternal care (RMC) received by women during delivery. This tool, developed and validated for low-resource settings, assesses communication, autonomy, and perceived discrimination during childbirth (Vedam et al., 2017). The MORi provides insight into how provider attitudes and interpersonal care influence health service utilization and satisfaction (Afulani et al., 2020).

3.6 Inclusion and Exclusion Criteria

Participants were selected based on the following:

i. Women aged 15–49 who were currently pregnant or had delivered within the past two years.
ii. Stakeholders with operational knowledge of maternal health services in Ekiti.
iii. Enumeration areas compromised by security issues or non-consenting individuals were excluded.

4. Discussion and Presentation of Results

This section presents the findings from the mixed-methods analysis of the study. The results integrate quantitative and qualitative evidence to provide a comprehensive understanding of the factors influencing the utilization of health facilities for delivery. The quantitative findings are presented first, highlighting the statistical patterns associated with health facility delivery utilization. These findings are complemented by qualitative insights from key informant interviews and community stakeholders, which provide deeper explanations of the underlying social, cultural, economic, and institutional factors shaping maternal healthcare-seeking behaviours. Therefore, this section presents the findings from the mixed-methods analysis, beginning with the quantitative results and followed by the qualitative findings, which help to explain and contextualize the quantitative patterns.

4.1 Access to Maternal Health Services:

The survey examined respondents' access to healthcare services across six LGAs in Ekiti State, with a focus on the availability of primary health care (PHC) facilities, distance to care, 24-hour service availability, maternal health service utilization, and quality perceptions.

Availability of Health Facilities:
A vast majority of respondents (96.8%) reported having a PHC facility in their community, with slightly higher availability in rural areas. However, gaps remained in some LGAs, particularly Ikere (6.7%), Ido-Osi (6.3%), and Ikole (5.9%), where respondents reported the absence of PHCs. In terms of additional functional health facilities beyond PHCs, only 69% confirmed the presence of such facilities in their communities, with Ise/Orun (56.5%) and Ikere (52.6%) reporting the least access.

Facility Utilization and Operating Hours:
More than half (56.3%) of respondents received care from PHCs, while 21.9% used general hospitals. Only 63% of PHCs reportedly operated 24 hours, with rural areas having more limited round-the-clock services. Notably, Efon Alaye (49%), Ekiti West (41%), and Ise/Orun (37.6%) had high proportions of non-24-hour facilities.

Proximity to Healthcare Services:
The average walking time to a health facility was 22.3 minutes, but 14.8% of respondents walked more than 30 minutes—particularly in Ikole (26%) and Ikere (21.1%). Less vulnerable women had a longer average walking time (25.7 minutes) compared to their more vulnerable counterparts**.**

Perception of Service Quality:
Only 48% of respondents believed that PHC services were improving. The most positive ratings came from Ikole, while respondents from Efon Alaye and Ekiti West were most likely to say services were worsening. Interestingly, more vulnerable women were generally more satisfied with care quality, whereas less vulnerable women reported unmet expectations.

Utilization of Maternal and Neonatal Health Services:
Antenatal care (ANC) attendance was high overall, with 93.2% attending at least once. However, ANC non-attendance was highest in Ikole and, surprisingly, among less vulnerable women (15.4%) compared to more vulnerable women (5.3%). Postnatal care (PNC) utilization within 2–3 days of delivery stood at 83.4%, with the highest uptake in Efon Alaye (93.9%) and Ise/Orun (91.8%), and the lowest in Ido-Osi (66.3%). Again, less vulnerable women were more likely to miss PNC visits.

Cord Care Practices:
Most respondents (81.9%) used methylated spirit with cotton wool for cord care. Chlorhexidine gel use was reported by only 9%, primarily in Efon Alaye and Ikere, and not at all in Ikole. A small proportion reported traditional or harmful practices, including hot substances, herbal mixtures, or kerosene.

Health Complications During Pregnancy:

Malaria in pregnancy was the most frequently reported health challenge among respondents (41.4%), with a higher prevalence observed in rural areas and Efon Alaye. Other maternal health complications, including preterm labour, postpartum haemorrhage, and anaemia, were reported at considerably lower proportions. The distribution of reported health challenges among respondents is presented in Table 1.

Table 1: Distribution of Reported Health Challenges Among Respondents

Health Challenge	**% Respondents**
Malaria in Pregnancy	41.4
None	35.9
Uncomplicated Delivery	13.8
Preterm Labour	2.1
Low Birth Weight	1.9
Postpartum Hemorrhage	1.7
Anemia	1.3
Complicated CS	1.1

Facility Delivery and Willingness to Recommend:

A notable 26.1% of respondents delivered outside health facilities. Ido-Osi had the highest rate of non-facility deliveries (35%). Urban and rural differences were negligible, but from a vulnerability perspective, 43.3% of less vulnerable women delivered outside facilities—more than double the rate of more vulnerable women. Despite this, 95.1% of all respondents were willing to recommend their delivery location to others; of the 4.9% who were not, most had delivered at home.

Figure 1: Respectful Maternal Care (RMC)

The overall MORi score for Ekiti State was 81.4%, indicating a moderate level of respectful care. Although the state excelled in preventing abuse and discrimination, significant gaps were observed in professional care standards and provider-mother rapport. For example, 45.2% of respondents experienced painful vaginal examinations, and 61% reported being denied a birth companion during labour (Afulani et al., 2020).

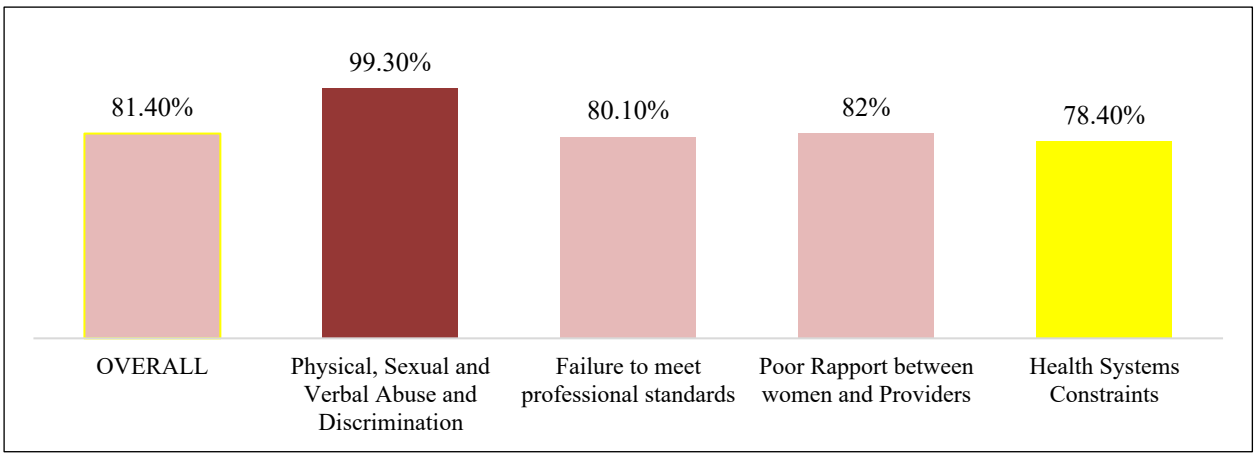

Figure 1: Index of Mothers on Respectful Maternal Care according to the 4 domains

Figure 2: Key Drivers of Non-Utilization

The findings presented in Figure 2 further underscore the dominant influence of spousal decision-making and economic constraints on the utilization of health facilities for delivery. The fact that 71.5% of respondents identified husbands as key decision-makers highlights the continued influence of household power dynamics in maternal healthcare choices, which is consistent with previous evidence on the role of male partners in maternal health decision-making (Kruk, Mbaruku, Rockers, & Galea, 2010; Izugbara et al., 2020).

Similarly, the finding that 50% of male respondents cited the cost of care as the primary barrier among women who delivered outside health facilities reflects the importance of financial constraints in shaping access to facility-based delivery (Izugbara, Wekesah, Tilahun, Amo-Adjei, Dimbuene, 2020). These findings suggest that improving maternal healthcare utilization requires interventions that address not only health system barriers but also household decision-making structures and financial limitations.

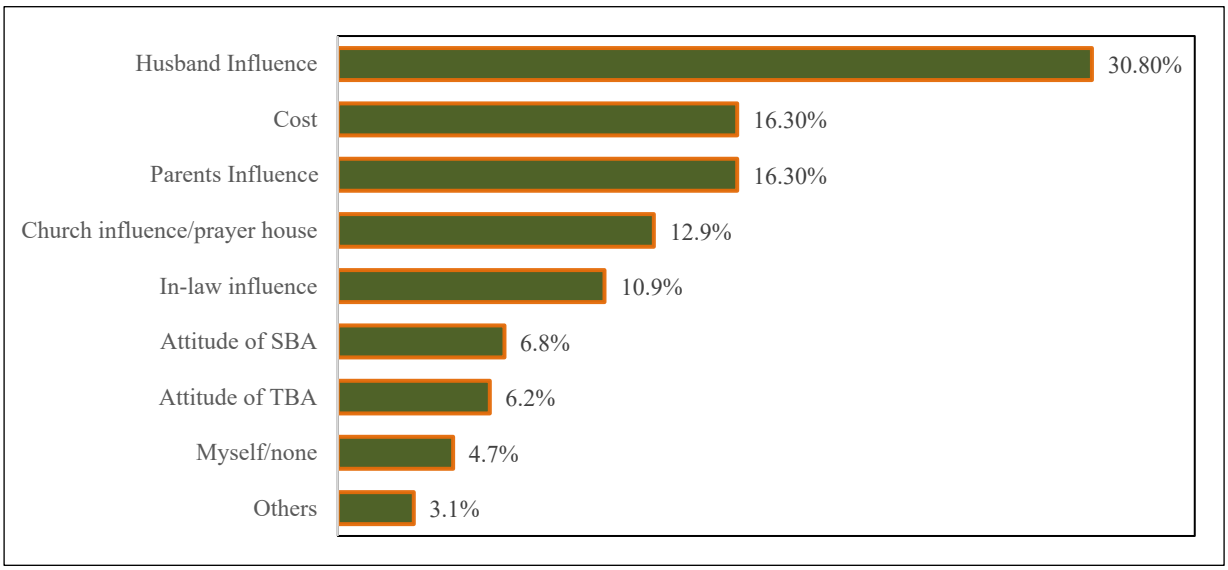

Figure 2: Drivers of choice of place of Delivery in Ekiti State

Figure 3: Community and Health System Factors

Figure 3 illustrates that despite high ANC attendance (93.2%), only 74% of respondents delivered in a health facility. Rural women and those classified as less vulnerable—often with greater decision-making autonomy—were more likely to deliver outside facilities. Logistical challenges, including long travel times and limited transport options, further compounded this disparity (Afulani, Phillips, Aborigo, Moyer, & Asante, 2019; Bohren, Vogel, Hunter, Lutsiv, Makh, Souza, & Gülmezoglu, 2015)

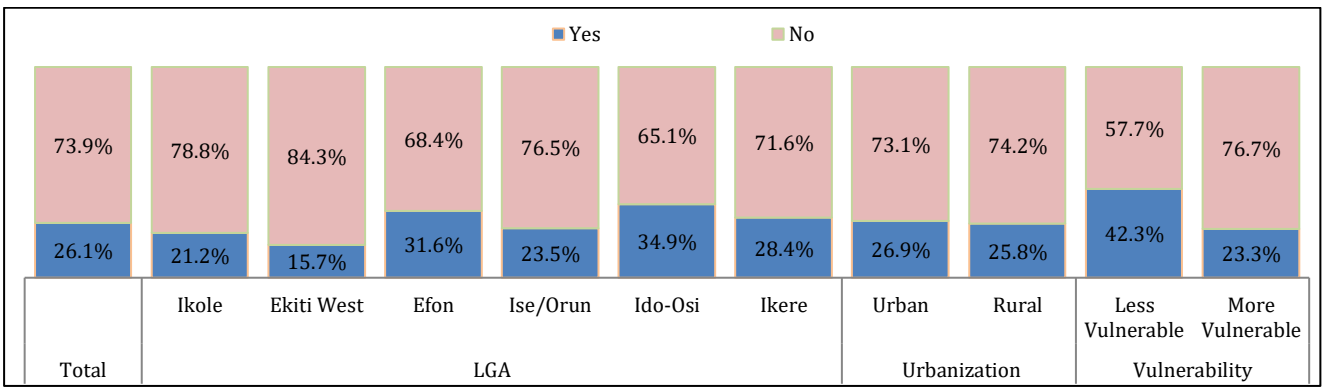

Figure 3: Facility vs. Non-Facility Delivery Rates in Ekiti State

4.2 Contextual Factors Influencing Non-Utilization of Health Facilities for Delivery: Qualitative Findings

Qualitative findings further reinforce the identified drivers of non-utilization of health facilities for delivery. The findings revealed that social, psychological, and socio-economic factors influence women's decisions regarding the choice of delivery location.

Influence of husbands, parents, and in-laws

One prominent factor identified was the influence of husbands, parents, and in-laws in maternal healthcare decision-making. Participants indicated that husbands often have a dominant role in determining the place of delivery, particularly because they are responsible for financing delivery-related costs. As noted from the qualitative responses: *"The final decision is always the husband's because they are the person that will pay for the cost of delivery."* This highlights how financial responsibility and gendered decision-making dynamics shape women's autonomy and choices regarding place of delivery.

Psychological Factors

Respondents were of the view that many pregnant women make efforts to hide their pregnancy from others for fear of spiritual attacks. Participants explained that this fear creates an opportunity for TBAs to attract pregnant women by providing spiritual support. Another scenario from the qualitative component of the research reported that *"The TBAs usually capitalize on this fear to offer prayers as a solution, which gradually woo the pregnant women away from the health facility."*

Socio-Economic Factors

Participants also identified socio-economic challenges as important drivers of non-utilization of health facilities for delivery. This includes TBAs' "fight" for survival in the face of economic hardship and insufficient financial risk protection. This is in line with the respondents' views in the qualitative arm of the study, which reported that *"The TBAs are also struggling to survive because this is their means of livelihood."* These findings demonstrate that non-utilization of health facilities for delivery is influenced by a combination of household decision-making structures, psychological concerns, and economic realities within the community.

5. Discussion

The study reveals a multifaceted challenge. While respectful maternal care is an important factor, its impact is overshadowed by the dominant role of spousal influence and the economic barrier of cost. The finding that husband's control 71.5% of delivery decisions aligns with existing literature on male involvement in maternal health (Borghi, Ensor, Somanathan, Lissner, & Mills, 2006). In addition, the fact that 50% of men identify cost as a primary barrier underscores the economic constraints that impede access to facility-based care (Bohren, Vogel, Hunter, Lutsiv, Makh, Souza, & Gulmezoglu, 2015).

5.1. Spousal Influence and Economic Barriers

Male partners play a pivotal role in healthcare decision-making in many Nigerian communities (Campbell & Graham, 2006). The high reliance on spousal influence necessitates those interventions extend to male-targeted education and involvement programs. Cost barriers, as identified by half of the male respondents, indicate that financial constraints—both actual and perceived—are critical deterrents to facility-based deliveries. Addressing these issues through subsidized care and transport support is essential (Doctor, Nkhoma, Abdulsalam-Anibilowo, 2019)

5.2. Systemic and Logistical Challenges

The gap between high ANC attendance and lower facility-based deliveries highlights significant systemic weaknesses. Inadequate transport limited 24-hour service availability, and logistical inefficiencies contribute to the delivery gap. Strengthening referral systems and ensuring consistent service quality are vital steps towards improving facility utilization (Izugbara, Wekesah, Tilahun, Amo-Adjei, & Dimbuene, 2020).

5.3. Implications for Policy and Practice

The findings suggest that policy interventions should prioritize the following areas:

Male Involvement:
Tailored education programmes and community outreach initiatives should be developed to engage male partners and promote supportive roles in maternal healthcare decision-making.
Financial Support:
Expansion of health insurance schemes, provision of transport subsidies, and enhanced funding for free maternal care programmes are essential to reduce financial barriers to facility-based delivery.
Health System Strengthening:
Investments in healthcare infrastructure, staffing, and operational improvements are required to ensure the availability of reliable 24-hour maternal health services.
Integration of Traditional Birth Attendants (TBAs):
The cultural role of TBAs should be leveraged by integrating them into the formal health system through appropriate training, referral networks, and collaboration with healthcare facilities (Adamu & Salihu, 2002; Fagbamigbe, Idemudia, & Adebowale, 2017).

5.4. Limitations

This study is limited by its cross-sectional design, which precludes causal inference. Self-reported data are subject to recall bias, and the findings from selected LGAs may not be generalizable nationwide. Future research should consider longitudinal designs and broader geographic sampling to validate these findings (Fagbamigbe, Idemudia, & Adebowale, 2017.

6. Conclusion and Recommendations

The findings of this study demonstrate that reversing the decline in facility-based deliveries in Ekiti State requires a comprehensive and context-specific approach that addresses the socio-cultural, economic, and health system barriers influencing maternal healthcare-seeking behaviour. The evidence highlights the critical roles of household decision-making dynamics, financial constraints, cultural practices, and community-level factors in shaping women's choices regarding place of delivery. Addressing these interconnected challenges is essential for improving the utilization of health facilities and advancing maternal health outcomes in the state. Based on these findings, the following recommendations are proposed to strengthen facility-based delivery utilization in Ekiti State.

Promote Male Involvement
Develop and implement targeted education programs for male partners to underscore the benefits of facility-based deliveries. Utilize community forums and media campaigns to engage men in maternal health decision-making and shift social norms around childbirth.
Expand Financial Access
Scale up health insurance schemes and introduce transport subsidies to reduce the cost burden associated with facility-based deliveries. Ensure that free maternal care programs are efficiently implemented and effectively reach rural and underserved populations.
Enhance Respectful Maternal Care
Implement comprehensive training for health workers on patient-centred care and respectful communication. Establish robust feedback and grievance redress systems to improve accountability and ensure women feel safe and respected in health facilities.
Strengthen Health System Infrastructure
Invest in upgrading health facilities to provide reliable, 24-hour services, especially in rural areas. Improve transport networks and referral systems to ensure timely access to emergency obstetric care.
By addressing these determinants, particularly the dominant role of spousal influence and the economic constraints identified, Ekiti State can enhance facility-based delivery rates, ultimately improving maternal and neonatal health outcomes and reducing preventable deaths.

7. Acknowledgements

The authors gratefully acknowledge the financial support provided by BACKUP Health, a global programme of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, commissioned by the German Federal Ministry for Economic Development and Cooperation (BMZ), for the underlying study on which this manuscript is based. We sincerely appreciate the cooperation and support of the Ekiti State Ministry of Health, the Ekiti State Health Insurance Agency, and all participating health facilities and healthcare workers who generously contributed their time, knowledge, and experiences during the study. We also thank the technical and field teams of NOIPolls Limited for their commitment to data collection, quality assurance, and project implementation. The views and conclusions expressed in this manuscript are those of the authors and do not necessarily reflect the official positions of BACKUP Health, GIZ GmbH, BMZ, the Ekiti State Ministry of Health, the Ekiti State Health Insurance Agency, or NOIPolls Limited.

8. Funding

The underlying study for this manuscript was conducted using funds from BACKUP Health, a global programme of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH commissioned by the German Federal Ministry for Economic Development and Cooperation. Even though the authors were commissioned to carry out this work and have working relations with the funders, the latter have not exerted any influence on the results or conclusions of either the underlying study or the manuscript.

Author Contributions: All authors contributed to this research.

Funding: The underlying study for this manuscript was funded by BACKUP Health, a global programme of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ).

Conflict of Interest: The authors declare no conflict of interest. Although the authors were commissioned to conduct the underlying study and have professional working relationships with the funders, BACKUP Health/GIZ and BMZ did not influence the study findings, interpretation of the results, or conclusions presented in the underlying study or this manuscript

Informed Consent Statement/Ethics Approval: Ethical approval for the study was obtained from the Ekiti State Ministry of Health and the Ekiti State Health Insurance Agency. Verbal informed consent was obtained from all study participants prior to their participation in the study.

Declaration of Generative AI and AI-assisted Technologies: This study has not used any generative AI tools or technologies in the preparation of this manuscript.

References

Adamu, Y. M., & Salihu, H. M. (2002). Barriers to the use of antenatal and obstetric care services in rural Kano, Nigeria. *Journal of Obstetrics and Gynaecology, 22*(6), 600–603. https://doi.org/10.1080/01443610210000407

Afulani, P. A., Phillips, B., Aborigo, R. A., Moyer, C. A., & Asante, K. P. (2019). Person-centred maternity care in low-income and middle-income countries: Analysis of data from Kenya, Ghana, and India. *The Lancet Global Health, 7*(1), e132–e142. https://doi.org/10.1016/S2214-109X(18)30403-0

Bohren, M. A., Vogel, J. P., Hunter, E. C., Lutsiv, O., Makh, S. K., Souza, J. P., & Gülmezoglu, A. M. (2015). The mistreatment of women during childbirth in health facilities globally: A mixed-methods systematic review. *PLoS Medicine, 12*(6), e1001847. https://doi.org/10.1371/journal.pmed.1001847

Borghi, J., Ensor, T., Somanathan, A., Lissner, C., & Mills, A. (2006). Mobilising financial resources for maternal health. *The Lancet, 368*(9545), 1457–1465. https://doi.org/10.1016/S0140-6736(06)69383-5

Campbell, O. M. R., & Graham, W. J. (2006). Strategies for reducing maternal mortality: Getting on with what works. *The Lancet, 368*(9543), 1284–1299. https://doi.org/10.1016/S0140-6736(06)69381-1

Ditekemena, J., Koole, O., Engmann, C., Matendo, R., Tshefu, A., Ryder, R., & Colebunders, R. (2012). Determinants of male involvement in maternal and child health services in sub-Saharan Africa: A review. *Reproductive Health, 9*, 32. https://doi.org/10.1186/1742-4755-9-32

Doctor, H. V., Nkhoma, D., & Abdulsalam-Anibilowo, M. (2019). Male involvement in maternal health care: Evidence from Anambra State, Nigeria. *BMC Public Health, 19*, 761. https://doi.org/10.1186/s12889-019-7089-3

Federal Ministry of Health. (2020). *Nigeria Every Newborn Action Plan: 2020–2024*. Federal Ministry of Health.

Fagbamigbe, A. F., Idemudia, E. S., & Adebowale, A. S. (2017). Maternal health care service utilization in Nigeria: A comparative analysis of rural and urban women. *International Journal of Women's Health, 9*, 681–690. https://doi.org/10.2147/IJWH.S125652

Izugbara, C. O., Wekesah, F. M., Tilahun, T., Amo-Adjei, J., & Dimbuene, Z. T. (2020). Family, reproductive health, and care-seeking behaviour in Africa: A review of the literature. *African Journal of Reproductive Health, 24*(3), 27–41. https://doi.org/10.29063/ajrh2020/v24i3.3

Kruk, M. E., Mbaruku, G., Rockers, P. C., & Galea, S. (2010). User fee exemptions are not enough: Out-of-pocket payments for "free" delivery services in rural Tanzania. *Tropical Medicine & International Health, 15*(12), 1457–1463. https://doi.org/10.1111/j.1365-3156.2010.02620.x

Montagu, D., Yamey, G., Visconti, A., Harding, A., & Yoong, J. (2011). Where do poor women in developing countries give birth? A multi-country analysis of demographic and health survey data. *PLoS ONE, 6*(2), e17155. https://doi.org/10.1371/journal.pone.0017155

Moyer, C. A., & Mustafa, A. (2013). Drivers and deterrents of facility delivery in sub-Saharan Africa: A systematic review. *Reproductive Health, 10*, 40. https://doi.org/10.1186/1742-4755-10-40

Mullany, B. C., Becker, S., & Hindin, M. J. (2007). The impact of including husbands in antenatal health education services on maternal health practices in urban Nepal: Results from a randomized controlled trial. *Health Education Research, 22*(2), 166–176. https://doi.org/10.1093/her/cyl060

National Population Commission [NPC] [Nigeria] & ICF. (2023). *Nigeria demographic and health survey 2023: Key indicators report*. NPC and ICF.

National Population Commission [NPC] [Nigeria] & ICF International. (2014). *Nigeria demographic and health survey 2013*. NPC and ICF International.

Okafor, I. I., Ugwu, E. O., & Obi, S. N. (2020). Disrespect and abuse during facility-based childbirth in a low-income country. *International Journal of Gynecology & Obstetrics, 148*(1), 110–116. https://doi.org/10.1002/ijgo.13096

Okonofua, F., Ntoimo, L., Ogu, R., Galadanci, H., Gana, M., Okike, O., & Abdus-Salam, R. (2018). Assessing the knowledge and skills on emergency obstetric care among health providers: Evidence from a multicenter study in Nigeria. *PLoS ONE, 13*(1), e0192347. https://doi.org/10.1371/journal.pone.0192347

Olaniran, A., Msuya, S. E., & Chilongola, J. O. (2019). The role of traditional birth attendants in maternal health care in Nigeria. *African Journal of Reproductive Health, 23*(1), 26–34. https://doi.org/10.29063/ajrh2019/v23i1.3

Olorunsaiye, C. Z., Degge, H. M., & Abegunde, D. O. (2016). Maternal and child health service utilization in Nigeria: Implications for intervention. *Pan African Medical Journal, 24*, 1–12. https://doi.org/10.11604/pamj.2016.24.1.9630

Osubor, K. M., Fatusi, A. O., & Chiwuzie, J. C. (2006). Maternal health-seeking behavior and associated factors in a rural Nigerian community. *Maternal and Child Health Journal, 10*(2), 159–169. https://doi.org/10.1007/s10995-005-0037-z

Say, L., Chou, D., Gemmill, A., Tunçalp, Ö., Moller, A. B., Daniels, J., & Alkema, L. (2014). Global causes of maternal death: A WHO systematic analysis. *The Lancet Global Health, 2*(6), e323–e333. https://doi.org/10.1016/S2214-109X(14)70227-X

Tura, G., Afework, M. F., & Yalew, A. W. (2013). The effect of health facility delivery on neonatal mortality: Systematic review and meta-analysis. *BMC Pregnancy and Childbirth, 13*, 18. https://doi.org/10.1186/1471-2393-13-18

United Nations Population Fund. (2022). *State of world population report 2022*. United Nations Population Fund.

Warren, C. E., Mwangi, A., Oweya, E., Kamunya, R., & Koskei, N. (2017). Safeguarding maternal and newborn health: Improving the quality of postnatal care in Kenya. *International Journal for Quality in Health Care, 29*(2), 183–190. https://doi.org/10.1093/intqhc/mzx003

World Health Organization. (2018). *WHO recommendations: Intrapartum care for a positive childbirth experience*. World Health Organization.

World Health Organization. (2022). *Trends in maternal mortality 2000 to 2020: Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division*. World Health Organization.

Yaya, S., Uthman, O. A., Amouzou, A., & Bishwajit, G. (2018). Inequalities in maternal health care utilization in Benin: A population-based cross-sectional study. *BMC Pregnancy and Childbirth, 18*, 194. https://doi.org/10.1186/s12884-018-1833-x