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IMPACT OF FREE MATERNAL HEALTH POLICIES ON THE UTILIZATION OF SKILLED BIRTH SERVICES IN NIGERIA: A LITERATURE REVIEW

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Abstract
Nigeria continues to face significant maternal health challenges, with maternal mortality ratios among the highest globally. In response, various state and federal governments have implemented free maternal health policies aimed at increasing the utilization of skilled birth services. This review integrates evidence from previous studies examining the impact of these policies through the lens of the Andersen Behavioral Model of Health Services Use, which conceptualizes healthcare utilization as a function of predisposing, enabling, and need factors. The review reveals that while free maternal health policies have demonstrated positive impacts in some contexts particularly when combined with comprehensive health system strengthening their effects remain heterogeneous across Nigeria. Programs such as the Abiye initiative in Ondo State achieved substantial increases in facility-based deliveries (from 56.5% to 85.6%) and antenatal care coverage (reaching 98%), while other state-level programs showed mixed or limited impacts. Predisposing factors, including education, religion, and ethnicity, consistently predict service utilization, with higher education associated with greater uptake of skilled birth services. Enabling factors, particularly wealth, distance to facilities, and quality of care, remain critical barriers even when user fees are removed. The evidence underscores that cost removal alone is insufficient; persistent supply-side constraints, cultural barriers, transport challenges, and quality-of-care issues continue to limit access to skilled birth services. Future maternal health policies must adopt comprehensive approaches that address financial, geographical, cultural, and health system barriers simultaneously to achieve equitable improvements in maternal health outcomes across Nigeria's diverse contexts.
Keywords: Health Policies, Nigeria, Skilled Birth Services,

1. Introduction

Maternal mortality remains a critical public health challenge in Nigeria, which accounts for approximately 20% of global maternal deaths despite representing only 2% of the world's population. The utilization of skilled birth services including antenatal care, facility-based delivery, and skilled birth attendance is recognized as a key strategy for reducing maternal and neonatal mortality. However, Nigeria continues to experience low rates of skilled birth attendance, with significant disparities across geographical regions, socioeconomic groups, and cultural contexts. In response to these challenges, various Nigerian state governments have implemented free maternal health policies aimed at removing financial barriers to accessing skilled birth services. These policies vary in scope, implementation, and effectiveness across different states. Understanding the impact of these policies requires a comprehensive theoretical framework that accounts for the multiple factors influencing healthcare utilization.

The Andersen Behavioral Model of Health Services Use provides a robust framework for examining healthcare utilization by conceptualizing it as a function of three main components: predisposing factors (demographic and social characteristics that exist prior to illness), enabling factors (resources and conditions that facilitate or impede service use), and need factors (perceived and evaluated health status that necessitate care). This narrative review synthesizes evidence from Nigerian studies to examine how free maternal health policies have impacted the utilization of skilled birth services, with particular attention to how predisposing, enabling, and need factors mediate policy effects.

2. Theoretical Framework: The Andersen Behavioral Model of Health Services Use

The Andersen Behavioral Model of Health Services Use, originally developed in the 1960s and subsequently refined, posits that healthcare utilization is determined by three primary categories of factors (Umar, 2016; Edu et al., 2017). This model has been widely applied in maternal health research in Nigeria and provides a comprehensive framework for understanding the complex determinants of skilled birth service utilization. Predisposing factors include demographic characteristics (age, sex), social structure (education, ethnicity, religion, occupation), and health beliefs that exist prior to the onset of illness. These characteristics describe the propensity of individuals to use health services. In the Nigerian context, predisposing factors such as education

level, religious affiliation, ethnic group, marital status, and parity have been consistently identified as significant predictors of maternal health service utilization (Umar, 2016; Umar, 2017).

Enabling factors represent the resources and conditions that facilitate or impede the use of health services. These include both individual/family resources (income, health insurance, social support) and community resources (availability of health facilities, transportation, distance to services). In the context of maternal health in Nigeria, enabling factors encompass household wealth, distance to health facilities, availability of transportation, user fees (or their removal through free maternal health policies), facility readiness, and quality of care (Umar et al., 2017; Edu et al., 2017). Need factors refer to the most immediate cause of health service use, including both perceived need (how individuals view their own health and functional state) and evaluated need (professional judgment about health status and need for care). In maternal health, need factors include pregnancy complications, previous pregnancy outcomes, antenatal care attendance, and recognition of danger signs during pregnancy and childbirth (Umar, 2016; Yaya et al., 2018). The Andersen Model recognizes that these three categories of factors interact dynamically to influence healthcare utilization. Importantly, the model suggests that enabling factors, such as free maternal health policies, operate within a broader context shaped by predisposing and need factors. This framework is particularly valuable for evaluating the impact of policy interventions, as it highlights that removing financial barriers alone may be insufficient if other predisposing or enabling barriers persist.

3. Overview of Free Maternal Health Policies in Nigeria

Nigeria has witnessed a proliferation of free maternal health policies at both state and federal levels over the past two decades. By 2010, up to 18 of Nigeria's 36 states had implemented some form of free maternal and child health services (Yaya et al., 2018). These policies vary considerably in their scope, implementation mechanisms, and sustainability. Key state-level programs include the Kano State Free Maternity Services (initiated in 2001), the Ondo State Abiye (Safe Motherhood) Programme (launched in 2009), the Cross River State Free Maternal Health Programme (introduced in 2009), the Jigawa State Free Maternal and Child Health Program, and the Enugu State Free Maternal Care program (Yakasai et al., 2012; Ajayi et al., 2020; Edu et al., 2017; Kazaure, 2018; Ezugwu et al., 2011). At the federal level, the Free Maternal and Child Health Program (FMCHP) was implemented to reduce financial barriers to maternal and child health services (Singh et al., 2024).

These policies typically involve the removal of user fees for antenatal care, delivery services, and sometimes postnatal care. However, the comprehensiveness of these programs varies. Some, like the Abiye program in Ondo State, combined user fee removal with broader health system strengthening initiatives, including community engagement, infrastructure improvements, and human resource development (Ajayi et al., 2020). Others focused primarily on fee removal without addressing supply-side constraints or complementary barriers to access. The historical context is important: prior to the Structural Adjustment Programme in 1988, maternal health services in Nigeria were largely free or heavily subsidized, and utilization was relatively high. The introduction of user fees following structural adjustment led to significant declines in service utilization, particularly among poor and rural populations (Umar, 2016). Contemporary free maternal health policies represent efforts to reverse these declines and improve maternal health outcomes.

4. Predisposing Factors and Utilization of Skilled Birth Services

4.1 Education

Educational attainment emerges as one of the most consistent and powerful predisposing factors influencing the utilization of skilled birth services in Nigeria. Multiple studies demonstrate a strong positive association between higher education levels and increased use of antenatal care and facility-based delivery services.

In Jigawa State, women with tertiary education were significantly more likely to achieve four or more antenatal care visits compared to those with lower educational attainment (Kazaure, 2018). Similarly, national-level analyses consistently show that education predicts both the number of antenatal care visits and the choice of delivery location, with more educated women significantly more likely to deliver in health facilities (Umar, 2016; Umar et al., 2017). In the Federal Capital Territory, education was identified as a statistically significant predisposing determinant for antenatal care uptake, skilled birth attendance, and immunization (Assessment of Factors Influencing Utilization, 2023). The Abiye program evaluation in Ondo State revealed that while the program successfully increased facility-based deliveries overall, disparities by education level persisted, with women having primary education or less maintaining lower odds of facility delivery compared to their more educated counterparts (Ajayi et al., 2020). This finding suggests that while free maternal health policies can improve overall utilization, they may not fully eliminate education-based disparities.

However, the relationship between education and service utilization is not uniform across all contexts. One study in Cross River State found that educational status was not a statistically significant determinant of place of delivery, suggesting that local cultural, religious, or programmatic factors can sometimes override the typical education effect (Etuk et al., 2019; Reuben et al., 2020). The mechanism through which education influences

utilization likely operates through multiple pathways: improved health literacy and knowledge of pregnancy complications, greater autonomy in healthcare decision-making, enhanced ability to navigate health systems, and increased exposure to health information through media and other channels (Umar, 2016).

4.2 Religion and Ethnicity

Religious beliefs and ethnic affiliation represent significant predisposing factors that shape maternal healthcare-seeking behavior in Nigeria's culturally diverse context. These factors influence not only individual preferences but also broader social norms regarding childbirth practices and the acceptability of facility-based delivery. National analyses using the Andersen Model framework demonstrate that religion and ethnicity are significant determinants of maternal health service use (Umar, 2017). Women from Hausa-Fulani and Kanuri/Bari-Bari ethnic groups, as well as Muslim women, were found to be less likely to achieve the recommended four or more antenatal care visits or to deliver in health facilities compared to women from other ethnic groups or religious backgrounds (Umar, 2017). These patterns are partly attributed to lower female literacy, empowerment, and autonomy in communities where certain religious and ethnic norms predominate.

In Cross River State, religious belief was identified as a significant determinant of women's choice of place of delivery, even in the context of free maternal health services (Etuk et al., 2019; Reuben et al., 2020). The persistence of faith-based childbirth practices, particularly among less educated women, represents a challenge that free maternal health policies alone have not adequately addressed (Ajayi et al., 2020). The influence of religion and ethnicity on maternal health service utilization reflects deeper cultural beliefs about childbirth, gender roles, and the appropriateness of biomedical interventions. These predisposing factors interact with enabling factors such as facility availability and quality, as well as with need factors such as the recognition of pregnancy complications (Umar, 2016).

4.3 Age and Parity

The relationships between age, parity, and skilled birth service utilization present a more complex and sometimes contradictory picture in the Nigerian literature. Age has been identified as a predisposing factor in several studies, with some analyses showing that older maternal age is associated with higher odds of facility delivery (Adetunji et al., 2025). However, the direction and magnitude of this association vary across contexts. Parity, the number of previous pregnancies—shows inconsistent patterns. In Jigawa State, parity showed no significant association with the frequency of antenatal care visits (Kazaure, 2018). Conversely, in Kano State, the free maternity services program showed higher utilization among women of low parity, while grand multiparous women expressed confidence in delivering without medical intervention based on their previous experiences (Yakasai et al., 2012). The relationship between age, parity, and service utilization likely reflects competing influences. Younger, first-time mothers may perceive greater need for skilled care due to inexperience and anxiety, while older multiparous women may rely on previous successful birth experiences and traditional practices. Conversely, grand multiparous women face objectively higher obstetric risks, which could increase their need for skilled care, though this evaluated need may not translate into perceived need or actual utilization.

4.4 Geographical Location

Geographical location including geopolitical zone, state of residence, and urban versus rural residence functions as a critical predisposing factor that shapes access to and utilization of maternal health services. National analyses reveal substantial disparities in maternal health service use across Nigeria's six geopolitical zones. Women residing in the South West and North Central zones demonstrated significantly higher odds of achieving four or more antenatal care visits compared to women in other zones (Umar et al., 2017). These regional disparities reflect historical differences in educational attainment, economic development, health infrastructure, and cultural norms regarding women's health and autonomy. The North East and North West zones, in particular, have been identified as having concentrated maternal and perinatal mortality and lower service access, motivating targeted interventions in these regions (Yaya et al., 2018). Urban-rural disparities in health facility deliveries persist despite various policy interventions. Wealth explains a substantial portion (43.03%) of the urban-rural gap in facility delivery, indicating that geographical location operates partly through its association with enabling factors such as income and facility availability (Adetunji et al., 2025). However, the Abiye program in Ondo State demonstrated that strong local implementation can narrow urban-rural differences, suggesting that comprehensive state-level programs can mitigate geographical disparities (Ajayi et al., 2020).

5. Enabling Factors and Policy Impact

5.1 User Fee Removal and Free Maternal Health Policies

User fee removal represents the primary enabling intervention implemented through free maternal health policies in Nigeria. The theoretical rationale is straightforward: financial barriers prevent many women, particularly those from poor households, from accessing skilled birth services. By removing these barriers, policies aim to increase utilization and improve maternal health outcomes. The evidence on the impact of user fee removal in Nigeria presents a mixed picture, with outcomes varying substantially across different state programs and implementation contexts. Historical evidence suggests that when maternal health services were free or heavily subsidized prior

to 1988, utilization was relatively high, and the introduction of user fees following structural adjustment led to significant declines in service use (Umar, 2016). This historical pattern supports the potential effectiveness of fee removal. However, contemporary evaluations reveal that the impact of free maternal health policies depends critically on program design, implementation quality, and the broader health system context. Studies consistently demonstrate that subsidies and free services do not automatically lead to increased maternal and child health service use, as cost is only one factor among many influencing healthcare-seeking behavior (Umar, 2016; Edu et al., 2017).

International comparisons provide context for Nigeria's experience. In Nepal, a free delivery care policy led to a 10% increase in skilled birth attendance over five years. South Africa's complete fee exemption increased antenatal care utilization but did not improve facility delivery rates. Kenya's policy increased antenatal care utilization but failed to improve facility delivery or postnatal care. Burkina Faso's partial subsidy increased both antenatal care and delivery service utilization from 40% to 60%, while Ghana's policy increased antenatal care utilization and facility delivery from 48.7% to 67.4% (Edu et al., 2017). Within Nigeria, the impact of free maternal health policies has been heterogeneous. Some programs have demonstrated substantial positive effects when combined with comprehensive health system strengthening, while others have shown limited or paradoxical effects when implemented in isolation or with weak health system capacity. This variation underscores that user fee removal functions as an enabling factor within a complex system of predisposing, enabling, and need factors.

5.2 Wealth and Socioeconomic Status

Despite the removal of user fees through free maternal health policies, household wealth and socioeconomic status remain significant enabling factors that influence the utilization of skilled birth services. This persistence of wealth-based disparities reveals that "free" services are not truly cost-free from the perspective of users. National analyses demonstrate that wealth explains a substantial portion of disparities in health facility deliveries, with significant pro-rich inequality persisting even after policy interventions (Adetunji et al., 2025). Household income remained a significant predictor of facility choice even after the introduction of free maternal health policies in Cross River State, reflecting the continued importance of transport costs, informal fees, and opportunity costs (Etuk et al., 2019; Reuben et al., 2020). The Federal Capital Territory study identified financial barriers and the lack of a health insurance scheme as key limitations to universal coverage of maternal and child health services, despite various policy initiatives (Assessment of Factors Influencing Utilization, 2023). Women from wealthier households consistently demonstrate higher utilization of antenatal care and facility-based delivery services across multiple studies (Umar et al., 2017).

The mechanisms through which wealth influences utilization despite free policies include: direct costs for transportation to facilities, indirect costs such as lost income from time spent seeking care, informal payments or "gifts" expected by health workers, costs of medications and supplies not covered by free policies, and the ability to access higher-quality private facilities when public facilities are inadequate (Umar et al., 2017; Edu et al., 2017). Recent evidence from the national Free Maternal and Child Health Program (FMCHP) indicates that the program reduced financial barriers and improved institutional delivery rates, with particularly pronounced improvements among disadvantaged groups including women with no education, Muslim women, and younger mothers (Singh et al., 2024). However, even in this context, more than 8% of respondents reported cost as an impediment to delivering at a health institution, indicating that financial barriers persist despite free policies (Singh et al., 2024).

5.3 Distance and Transportation

Distance to health facilities and transportation challenges represent critical enabling factors that continue to constrain access to skilled birth services even when user fees are removed. These geographical and logistical barriers operate independently of financial policies and require distinct interventions. Studies identify distance to health facilities as a significant barrier to maternal health service utilization across Nigeria (Umar et al., 2017; Kazaure, 2018; Edu et al., 2017). In Jigawa State, women living closer to health facilities were more likely to achieve four or more antenatal care visits, even after controlling for enrollment in the free maternal health program (Kazaure, 2018). National analyses confirm that distance to the nearest health facility significantly influences both antenatal care attendance and place of delivery (Umar et al., 2017).

Transportation costs and availability represent related but distinct barriers. Even when delivery services are free, women must pay for transportation to reach facilities, and these costs can be prohibitive for poor households, particularly in rural areas with limited transportation infrastructure (Umar et al., 2017; Singh et al., 2024). In rural Edo State, difficulty with transportation was identified as a major barrier to accessing skilled pregnancy care (Yaya et al., 2018). The interaction between distance, transportation, and emergency obstetric care is particularly critical. Women experiencing pregnancy complications require rapid access to emergency obstetric care, but distance and transportation barriers can result in dangerous delays. The proximity of traditional birth attendants to women's homes, combined with their flexible payment arrangements, makes them a more accessible option for many women despite the availability of free facility-based services (Enang et al., 2013). Interestingly, in Kano State, transportation was not reported as a major factor preventing hospital delivery, possibly reflecting the urban

concentration of the study population or the program's success in addressing transportation barriers (Yakasai et al., 2012). This variation suggests that the salience of distance and transportation barriers varies across geographical contexts and may be amenable to targeted interventions.

5.4 Health System Capacity and Quality of Care

Supply-side constraints and quality-of-care issues represent critical enabling factors that can undermine the effectiveness of free maternal health policies. When demand for services increases following fee removal, inadequate health system capacity can lead to overcrowding, longer waiting times, stock-outs of essential supplies, and deteriorating quality of care paradoxically creating new barriers to utilization. Studies document supply-side constraints as persistent barriers to skilled birth service utilization in Nigeria. In Jigawa State, the lack of access, unavailability, and poor quality of services were identified as key barriers, along with insufficient budgetary provision, reimbursement failures, and the need for more staff and consumables (Kazaure, 2018). The increased workload resulting from free policies led to decreased morale among health workers, which in turn affected service quality (Kazaure, 2018; Yakasai et al., 2012).

The Kano State free maternity services program experienced an "astronomical increase" in obstetric patients, with 500 antenatal women attending daily at Murtala Muhammad Specialist Hospital (Yakasai et al., 2012). While this represented a success in terms of increased utilization, it also created challenges including longer waiting times, insufficient staffing, and supply shortages. The negative attitudes of health workers, perceived as overworked and under-resourced, emerged as a significant barrier (Yakasai et al., 2012; Yaya et al., 2018). In Cross River State, despite free maternal health services, many health facilities lacked basic facilities, and health care personnel were poorly motivated (Yaya et al., 2018). Primary health centers were inadequately staffed and equipped, with poor linkages to secondary and tertiary care centers for referral of complications (Yaya et al., 2018). The study in rural Edo State similarly identified lack of awareness of updated guidelines, inadequate staffing and equipment at primary health centers, and poor motivation of health workers as critical barriers (Yaya et al., 2018).

Quality-of-care concerns extend beyond staffing and supplies to include provider attitudes and behaviors. Perceptions of negative attitudes among health workers, fear of intimidation from doctors, and concerns about provider behavior deter women from seeking facility-based care (Yaya et al., 2018; Enang et al., 2013). In some contexts, women reported not trusting facilities or perceiving poor service quality, leading them to prefer home births or traditional birth attendants despite the availability of free services (Singh et al., 2024; Enang et al., 2013). The concept of "delivery demands" requirements or expectations placed on women at the time of delivery emerged as a significant barrier in Cross River State. These demands, which may include requirements to bring specific supplies or informal payments, scare women and drive some to opt for unskilled attendants despite the official policy of free care (Etuk et al., 2019; Reuben et al., 2020). Drug shortages, insufficient funding, and poor planning and organization further undermine the effectiveness of free maternal health policies (Kazaure, 2018). The lack of capacity in hospitals to provide quality obstetric services for complications means that even when women reach facilities, they may not receive the life-saving care they need (Kazaure, 2018).

6. Need Factors and Healthcare-Seeking Behavior

Need factors both perceived need (how women view their own health status and pregnancy) and evaluated need (professional assessment of health status and risk) represent the most immediate determinants of healthcare utilization in the Andersen Model. In the context of maternal health in Nigeria, need factors include pregnancy complications, previous pregnancy outcomes, antenatal care attendance, and the recognition of danger signs. Antenatal care attendance emerges as a particularly strong predictor of health facility delivery across multiple national and state-level analyses (Umar, 2016; Adetunji et al., 2025). Women who attend antenatal care are significantly more likely to deliver in health facilities, suggesting that antenatal care contact serves both as an indicator of perceived need and as a mechanism that increases awareness of the benefits of skilled birth attendance. This relationship highlights the importance of antenatal care as an entry point for promoting facility-based delivery.

Perceived need and the recognition of pregnancy complications influence care-seeking behavior, but qualitative evidence suggests that many women and their families misinterpret danger signs or have low perceived need for skilled care during pregnancy and childbirth (Ntoimo et al., 2019). Cultural beliefs about pregnancy as a natural process rather than a medical condition can reduce perceived need for facility-based care, even when objective risk factors are present. The interaction between need factors and other components of the Andersen Model is critical. Even when women perceive a need for skilled care for example, when they recognize pregnancy complications enabling factors such as lack of transportation, distance to facilities, or poor facility quality can prevent them from accessing services (Umar, 2016; Ntoimo et al., 2019). Similarly, predisposing factors such as education improve women's ability to recognize complications and understand the need for skilled care, creating a pathway through which education influences utilization (Umar, 2016).

7. Comparative Analysis of State-Level Free Maternal Health Programs

7.1 Ondo State: The Abiye Program

The Abiye (Safe Motherhood) Programme in Ondo State represents one of the most successful and well-documented free maternal health initiatives in Nigeria. Launched in 2009, the program combined user fee removal with comprehensive health system strengthening, including community engagement, infrastructure improvements, and human resource development (Ajayi et al., 2020). The impact of the Abiye program was substantial and sustained. Facility-based child delivery increased from 56.5% in 2013 to 85.6% in 2016, representing a 29.1 percentage point increase. Antenatal care attendance rose from 80% to nearly 98% within five years of implementation (Ajayi et al., 2020). These improvements were accompanied by reductions in disparities by age, education, religion, and ethnic groups, indicating that the program achieved relatively equitable gains across different population subgroups (Ajayi et al., 2020). Critically, the Abiye program reduced urban-rural differences in facility delivery, demonstrating that comprehensive state-level programs can narrow geographical disparities when implemented with adequate resources and political commitment (Ajayi et al., 2020). The program's success has been attributed to its holistic approach, which addressed not only financial barriers but also supply-side constraints, community engagement, and cultural factors.

However, even the successful Abiye program did not eliminate all disparities. Women with primary education or less maintained lower odds of facility delivery compared to more educated women, and the program did not adequately discourage faith-based childbirth services, particularly among less educated women (Ajayi et al., 2020). These persistent gaps highlight that even comprehensive programs face challenges in addressing deeply rooted cultural and educational disparities. The Abiye program achieved Millennium Development Goal 5 (MDG-5) status, making Ondo State a model for other Nigerian states. However, the program's focus on secondary care and urban areas has been noted as a limitation for broader policy relevance, particularly for rural and primary care settings (Yaya et al., 2018).

7.2 Kano State Free Maternity Services

Kano State's free maternity services, introduced in 2001, represent one of the earliest state-level free maternal health initiatives in Nigeria. The program led to an "astronomical increase" in obstetric patients and improved utilization of antenatal care and emergency obstetric care (Yakasai et al., 2012). Preliminary assessments showed over 30% reduction in maternal mortality ratio following implementation, indicating positive health outcomes (Yakasai et al., 2012). The uptake of services continued to increase exponentially, with 500 antenatal women attending daily at Murtala Muhammad Specialist Hospital by 2012 (Yakasai et al., 2012). Utilization was particularly high among less educated mothers and women of low parity, suggesting that the program successfully reached vulnerable populations (Yakasai et al., 2012).

However, the rapid increase in demand created significant supply-side challenges. The increased workload for providers led to longer waiting times for patients and concerns about provider morale and quality of care (Yakasai et al., 2012). Barriers persisted including negative attitudes of health workers, lack of adequate doctors, general financing issues, cultural factors, and insufficient funding for supplies (Yakasai et al., 2012). Interestingly, transportation was not reported as a major barrier in the Kano context, possibly reflecting the urban concentration of services or successful transportation interventions (Yakasai et al., 2012). The program also attracted patients from neighboring states, creating additional demand pressures on Kano's health system (Yakasai et al., 2012).

7.3 Jigawa State Free Maternal and Child Health Program

The Jigawa State Free Maternal and Child Health Program (JSFMCHP) presents a puzzling case of paradoxical effects, where program enrollment was associated with unexpected patterns of service utilization. Women who were not enrolled in the JSFMCHP were more likely to achieve four or more antenatal care visits compared to enrolled women (odds ratio of 5.53 for non-participants) (Kazaure, 2018). This counterintuitive finding suggests implementation or targeting problems that undermined the program's intended enabling effects. Possible explanations include: enrollment criteria that inadvertently selected women with lower baseline propensity to use services, implementation challenges that reduced service quality or availability for enrolled women, or confounding factors not fully captured in the analysis (Kazaure, 2018).

The study did find that tertiary education predicted a greater likelihood of four or more antenatal care visits, and women living closer to health facilities were more likely to achieve adequate antenatal care, consistent with expected patterns (Kazaure, 2018). However, the negative association with program enrollment raises important questions about program design and implementation. Barriers identified in the Jigawa context included lack of access, unavailability and poor quality of services, inability to identify poor households for exemption policies, insufficient budgetary provision and reimbursement failure, need for more staff and consumables, increased workload leading to decreased health worker morale, lack of information on covered services, drug shortages, insufficient funding, poor planning and organization, distance to health facilities, negative staff attitudes, and waiting times (Kazaure, 2018).

7.4 Cross River State Free Maternal Health Programme

Cross River State introduced a cost-free maternal health programme in 2009 with the goal of reducing maternal mortality by increasing skilled attendant utilization. However, evaluations indicate that the program had limited or null impact on shifting women from unskilled to skilled birth attendants (Etuk et al., 2019; Edu et al., 2017). Despite the availability of free delivery services, utilization of government health facilities remained low. One study found that 84.6% of births occurred outside the formal health system, with most attended by traditional birth attendants, while only 15.4% of births occurred in hospitals or health centers (Enang et al., 2013). The patronage of unskilled attendants persisted, indicating that the free policy alone was insufficient to change deeply rooted birthing practices (Etuk et al., 2019).

Studies in Cross River State identified several factors that continued to influence women's choice of delivery place despite free services: delivery demands (requirements or expectations at facilities that scared women), religious beliefs, and income level were all significant determinants, while educational status was not statistically significant (Etuk et al., 2019; Reuben et al., 2020). Barriers to facility-based delivery in Cross River included: proximity and accessibility of traditional birth attendants, affordability concerns despite free policies (reflecting hidden costs), cultural acceptability and respectful attitudes of traditional birth attendants, fear of intimidation from doctors, perceived quality of services, and personal choice and decision-making autonomy (Enang et al., 2013; Edu et al., 2017). The Cross River experience highlights that cost removal addresses only part of the enabling factor, and other factors including cultural beliefs, quality of care, provider attitudes, and facility readiness are crucial for increased maternal health care utilization (Edu et al., 2017).

7.5 Enugu State Free Maternal Care

The Enugu State free maternal care program, evaluated at Enugu State University Teaching Hospital (ESUTH), demonstrated both the potential and the limitations of user fee removal. The introduction of free maternal care led to an 88% rise in deliveries at the facility. However, within four months of the program's termination, there was a 30% drop in deliveries, clearly demonstrating the impact of financial barriers on access (Ezugwu et al., 2011). While the maternal mortality ratio dropped slightly during the free care period, morbidity and stillbirth rates increased significantly, with the stillbirth rate reaching 77 per 1,000 births, particularly affecting intrapartum stillbirths (Ezugwu et al., 2011). This pattern suggests that the increased demand generated by free services may have overwhelmed facility capacity, leading to compromised quality of care and adverse outcomes. The Enugu experience illustrates a critical challenge: free policies can successfully increase utilization, but without adequate health system capacity to manage increased demand, the quality of care may deteriorate, potentially leading to worse health outcomes. This finding underscores the importance of combining demand-side interventions (fee removal) with supply-side strengthening (staffing, equipment, supplies, infrastructure).

8. Persistent Barriers Despite Free Policies

Despite the implementation of free maternal health policies across multiple Nigerian states, substantial barriers to skilled birth service utilization persist. These barriers operate across all three components of the Andersen Model and highlight the limitations of financial interventions alone. Financial and economic barriers persist despite fee removal. Hidden costs including transportation, medications not covered by free policies, informal payments or "gifts" expected by providers, and opportunity costs from time spent seeking care continue to constrain access, particularly for poor and rural women (Umar et al., 2017; Edu et al., 2017; Singh et al., 2024). More than 8% of women in a recent national study reported cost as an impediment to institutional delivery despite free policies (Singh et al., 2024). Geographical and transportation barriers remain critical obstacles. Distance to health facilities, lack of transportation, poor road infrastructure, and the costs of transportation prevent many women from accessing facility-based care, even when services are free (Umar et al., 2017; Kazaure, 2018; Singh et al., 2024). The proximity of traditional birth attendants to women's homes provides a competitive advantage that free facility-based services cannot overcome without addressing geographical access (Enang et al., 2013).

Supply-side constraints and quality-of-care issues undermine the effectiveness of free policies. Inadequate staffing, insufficient equipment and supplies, drug shortages, poor facility infrastructure, lack of emergency obstetric care capacity, and inadequate linkages between primary, secondary, and tertiary facilities limit the ability of health systems to provide quality care (Kazaure, 2018; Yaya et al., 2018; Edu et al., 2017). When free policies increase demand without corresponding supply-side investments, overcrowding, longer waiting times, and deteriorating quality can result (Yakasai et al., 2012; Ezugwu et al., 2011). Provider attitudes and behaviors represent significant barriers. Negative attitudes of health workers, perceptions of disrespect or mistreatment, fear of intimidation from doctors, concerns about young or inexperienced staff, and lack of permission from husbands or family members to seek care from male providers all deter women from facility-based delivery (Yakasai et al., 2012; Yaya et al., 2018; Enang et al., 2013; Singh et al., 2024).

Cultural and religious factors continue to shape healthcare-seeking behavior. Religious beliefs favoring faith-based childbirth, cultural norms viewing pregnancy as a natural rather than medical process, preference for

traditional birth attendants who share cultural values and practices, ethnic and religious norms limiting female autonomy and decision-making, and lack of trust in biomedical care all influence women's choices (Umar, 2017; Etuk et al., 2019; Ajayi et al., 2020; Enang et al., 2013). Information and awareness gaps limit the effectiveness of free policies. Lack of information about covered services, poor knowledge of pregnancy complications and danger signs, limited awareness of the benefits of skilled birth attendance, and previous negative experiences with facility-based care all reduce perceived need and utilization (Kazaure, 2018; Umar, 2016).

Health system governance and sustainability challenges threaten program continuity. Insufficient budgetary provision, reimbursement failures to facilities, poor planning and organization, lack of coordination between levels of care, and political instability affecting program continuity all undermine the sustainability and effectiveness of free maternal health policies (Kazaure, 2018; Yakasai et al., 2012).

9. Discussion: Implications for Policy and Practice

The evidence synthesized in this review reveals that free maternal health policies in Nigeria have produced heterogeneous impacts on the utilization of skilled birth services. Through the lens of the Andersen Behavioral Model, it becomes clear that user fee removal represents only one enabling factor among many that influence healthcare utilization, and its effectiveness depends critically on the broader context of predisposing factors, other enabling factors, and need factors. The Andersen Model provides valuable insights for understanding why free policies succeed in some contexts but fail in others. Successful programs like Ondo State's Abiye initiative combined user fee removal (an enabling factor) with interventions addressing supply-side constraints (health system capacity), community engagement (influencing predisposing factors like health beliefs), and quality improvements (enhancing both enabling factors and perceived need). In contrast, programs that focused narrowly on fee removal without addressing complementary barriers achieved limited or paradoxical effects.

Predisposing factors create differential responsiveness to free policies. Women with higher education, from certain ethnic and religious groups, residing in urban areas or specific geopolitical zones, and with previous positive healthcare experiences are more likely to utilize free services. This differential responsiveness means that free policies may inadvertently widen disparities if not accompanied by targeted interventions to reach disadvantaged groups. The Abiye program's success in reducing disparities by education, religion, and ethnicity suggests that comprehensive programs can achieve more equitable impacts, but even this exemplary program did not eliminate all disparities (Ajayi et al., 2020).

Enabling factors beyond cost remain critical barriers. Distance and transportation, health system capacity and quality of care, provider attitudes and behaviors, and facility readiness all constrain utilization even when services are free. The persistence of wealth-based disparities despite free policies reflects the continued importance of these non-financial enabling factors (Adetunji et al., 2025). Policy interventions must address the full spectrum of enabling factors through: transportation support or mobile health services for remote areas, health system strengthening including staffing, equipment, and supplies, quality improvement initiatives and provider training, community-based interventions to address cultural barriers, and health insurance schemes to cover indirect costs.

Need factors and demand generation require attention. Free policies increase the supply of available services, but utilization depends on perceived need and demand. Many women and families do not perceive pregnancy and childbirth as requiring medical intervention, particularly when previous births were successful without skilled attendance. Interventions to increase perceived need include: health education about pregnancy complications and danger signs, community engagement to shift norms around childbirth, positive messaging about facility-based care, and ensuring that women who do seek care have positive experiences that encourage return visits and word-of-mouth promotion.

Supply-side readiness is essential for free policies to succeed. Multiple programs experienced rapid increases in demand following fee removal, but inadequate health system capacity led to overcrowding, longer waiting times, stock-outs, and deteriorating quality creating new barriers to utilization and potentially worsening health outcomes (Ezugwu et al., 2011; Yakasai et al., 2012). Free policies must be accompanied by investments in: adequate staffing with appropriate skill mix, essential medicines and supplies, functional equipment and infrastructure, emergency obstetric care capacity, and referral systems linking primary, secondary, and tertiary care. Context matters profoundly. The heterogeneous impacts of free maternal health policies across Nigerian states reflect differences in: baseline health system capacity and infrastructure, political commitment and governance, cultural and religious contexts, geographical characteristics (urban vs. rural, distance to facilities), socioeconomic conditions, and program design and implementation quality. One-size-fits-all approaches are unlikely to succeed; policies must be adapted to local contexts while maintaining core principles of comprehensive, equity-oriented interventions.

Sustainability and financing remain critical challenges. Several programs experienced implementation challenges related to insufficient budgetary provision, reimbursement failures, and lack of sustainable financing mechanisms (Kazaure, 2018). The termination of Enugu State's free maternal care program and the subsequent 30% drop in deliveries illustrate the fragility of programs without sustainable financing (Ezugwu et al., 2011). Sustainable

free maternal health policies require: adequate and predictable government budget allocations, efficient reimbursement mechanisms for facilities, health insurance schemes to pool risk and ensure continuity, and political commitment that transcends electoral cycles.

Equity considerations must be central to policy design and evaluation. While free policies aim to improve equity by removing financial barriers, their actual impact on equity depends on whether they reach the most disadvantaged populations. The evidence suggests that free policies can reduce disparities when combined with targeted interventions, but may widen disparities if advantaged groups are better positioned to utilize services (Ajayi et al., 2020; Singh et al., 2024). Equity-oriented policies should include: targeted outreach to disadvantaged groups (poor, rural, less educated, specific ethnic/religious communities), community-based interventions to address cultural barriers, transportation support for remote populations, and monitoring and evaluation systems that track equity indicators.

10. Future Directions and Recommendations

Based on the evidence synthesized in this review, several recommendations emerge for policy, practice

- Adopt comprehensive approaches that combine user fee removal with health system strengthening, quality improvement, community engagement, and interventions addressing cultural and geographical barriers.
- Ensure adequate and sustainable financing for free maternal health programs, including budget allocations for increased staffing, supplies, equipment, and infrastructure to manage increased demand.
- Implement equity-focused strategies including targeted outreach to disadvantaged populations, transportation support for remote areas, and culturally appropriate interventions for diverse ethnic and religious communities.
- Establish robust monitoring and evaluation systems that track not only utilization rates but also equity indicators, quality of care, health outcomes, and user satisfaction.
- Strengthen governance and coordination mechanisms to ensure effective implementation, timely reimbursement to facilities, and linkages between different levels of care.
- Invest in provider training on respectful maternity care, emergency obstetric care, and culturally sensitive service delivery to address quality-of-care concerns and provider attitude barriers.
- Implement community engagement strategies including health education, involvement of traditional and religious leaders, and peer support programs to shift norms and increase perceived need for skilled birth services.
- Develop innovative service delivery models such as mobile health services, maternity waiting homes, and community-based distribution of antenatal care to address geographical barriers.
- Strengthen referral systems and emergency transportation mechanisms to ensure that women with complications can access emergency obstetric care rapidly.
- Engage men and families in maternal health education and decision-making to address barriers related to lack of permission or support from husbands and family members.

11. Conclusion

Free maternal health policies in Nigeria aim to reduce financial barriers and improve access to skilled birth services. Evidence shows that these policies have produced varying results across different regions. Some programs have achieved significant success, while others have recorded only limited outcomes. Successful programs combined free services with broader health system improvements, including community engagement and quality improvement measures. Ondo State's Abiye initiative exemplifies such a program, achieving notable success by increasing facility-based deliveries and antenatal care attendance, while also helping to reduce inequalities in access to maternal health services. Programs that focused solely on removing user fees generally had weaker outcomes, as they often failed to address health system and cultural barriers. The Andersen Behavioral Model of Health Services Use helps explain these differences, highlighting the importance of predisposing, enabling, and need factors. Education, religion, and geographic location influence service utilization, while wealth, transportation, and quality of care also affect access. Women's health needs and previous experiences play critical roles, and hidden costs, transport challenges, health system weaknesses, and poor provider attitudes continue to limit access. Cultural beliefs and lack of awareness further affect service utilization. Future maternal health policies should adopt comprehensive and equitable approaches that address multiple factors simultaneously, thereby improving maternal health outcomes across Nigeria.

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