

## A systematic review on the factors associated with utilization of maternal healthcare services at the primary healthcare setting among Hausa women in Nigeria.

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### Abstract

#### Introduction

The utilization of Maternal Health Services (MHSs) is important to reduce and manage the complications that may arise during pregnancy. This review from literatures identified the factors that discourage the utilization of maternal healthcare services among Hausa women in Nigeria.

#### Methods

A systematic mixed studies review was carried out on studies done in Nigeria from the year 2020 to 2025 to synthesize findings from quantitative and qualitative studies. The review adopted the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA). Peer-reviewed articles were searched through several electronic databases such as Google Scholar, Medline, PubMed, and Science Direct. After quality appraisal, 9 papers that met the inclusion and exclusion criteria were used in the review.

#### Result

Findings from the review showed that cultural and religious practices, mothers' level of education and age, ignorance, insufficient health workers, long waiting period, history of pregnancy complications, and shortage of drugs were factors that hindered utilization of maternal health services in the primary health setting among Hausa women in Nigeria.

#### Conclusion

This review has added to knowledge on the importance of maternal health by exploring the factors associated with the utilization of maternal health services, thus providing support to researchers and practitioners. It also offers evidence that policymakers can use to develop a culture-sensitive approach to address the issues that hinder Hausa women from utilizing maternal health services, thus leading to healthier pregnancy outcomes for the upcoming generation.

#### Recommendation

The government should allocate more funds to the primary health centers and ensure that the primary healthcare center is well equipped with basic amenities, including the provision of manpower for better maternal health outcomes and service utilization.

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**Keywords:** *Maternal health services; Primary healthcare; Hausa women; Antenatal; Postnatal; and Skilled birth delivery*

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### Background to the study

Maternal Health Services (MHSs) refer to the medical health services that are given to a woman during pregnancy, childbirth, and postpartum. The utilization of these basic

services is important to reduce and manage the complications that may arise during pregnancy, which may, in turn, help to reduce the burden of maternal and child mortality.<sup>1</sup> However, despite the positive benefits of utilizing MHS, many women in sub-Saharan Africa (SSA)

still do not have access to quality MHS, with SSA alone contributing to 70% of all global maternal mortality.<sup>2, 3</sup> Nigeria alone is responsible for about 28.3% of all maternal deaths globally, with an estimate of 8,200 maternal deaths and a maternal mortality ratio of 1,047 per 100,000 livebirths.<sup>4</sup>

Across Nigeria, the incidence and prevalence of maternal mortality vary across the regions. In the Southern region, the maternal mortality rate is 365/100,000 live births, which is lower than the northern region of 709/100,000 live births. Early attendance of antenatal care helps to detect the risks associated with pregnancy, and it provides the appropriate measures to avert them.<sup>5,6</sup> It also allows essential health tasks such as health promotion, screening, diagnosis, and disease prevention.<sup>7</sup> Despite the promising benefits of adequate utilization of ANC, studies suggest that usage and coverage of these services remain inadequate in Nigeria.<sup>8</sup> As such, across Northern Nigeria and among the Hausas, the data on maternal mortality remains high with consistently low levels of ANC services utilization, postnatal utilization, and SBA during deliveries;<sup>9</sup> and when maternal health services are utilized properly, it decreases maternal health illness and death.<sup>2,10,11</sup>

Antenatal care covers the following characteristics, including the category of healthcare provider, the frequency of antenatal visits, the gestational age at which the initial and final consultations occur, and the total number of visits.<sup>12</sup> Skilled delivery is when a delivery occurs in the health facility under the supervision of a midwife, nurse, or medical doctor<sup>13</sup> and it is one of the key indicators for achieving the Sustainable Development Goal.<sup>14</sup> This will ensure that the life and the health of the mother and child are well protected, because several babies or mothers are lost due to several challenges, such as the inability to recognize delivery complications and ensuring prompt referrals.<sup>15</sup> Postnatal care also includes postnatal checkups, family planning services, and counseling for those who have experienced obstetric complications, maternal and child nutrition, hygiene, and sanitation.<sup>16</sup>

Primary Health Care (PHC) facilities offer the most promising avenue for rural women in Nigeria to engage with the health care system, to receive the highest quality evidence-based and cost-effective access to maternal healthcare services including skilled delivery services<sup>17,18</sup> Not only are PHCs situated in proximity to rural women within the existing health care framework of the nation; they also allow health practitioners to deliver individualised care that is responsive to the cultural and social contexts of rural women.

However, the service use of health care differs among individuals, families, and communities with respect to their culture, needs, socioeconomic status, beliefs, values, and expectations, and these factors determine where, when, and how services are used.<sup>19</sup> In Nigeria, primary health care is the first point of contact for women seeking antenatal, intrapartum, and postnatal care services<sup>20,21</sup>, and the main reason for establishing PHC centers in rural areas is to have easy access and equity of health care.<sup>22</sup>

But the reality is that even with the availability of these services at the doorstep of most women, there is still under-utilization of these services.<sup>12</sup> Studies have revealed that many pregnant women use traditional and home-based methods for maternity care rather than existing PHCs.<sup>17,23,21</sup> Several reports have revealed that socio-cultural factors, socio-demographic, and economic factors have been a major hindrance to the utilization of maternal health services,<sup>24,25</sup> and addressing these factors has been suggested to improve the utilization of maternal healthcare services.

Existing studies have focused largely on the factors that hinder utilization of antenatal care, neglecting the factors that hinder utilization of post-natal care and skilled birth delivery for women generally. There is also a lack of systematic evidence on the factors that discourage the utilization of maternal healthcare services, such as antenatal care, skilled birth delivery, and postnatal care, which is peculiar among Hausa women in Nigeria, despite the high burden of maternal mortality among these groups of women, because they prefer home birth. The aim of this current study is to close this research gap by drawing evidence from previous research studies across Nigeria conducted among Hausa women, thereby providing evidence on the factors that hinder the utilization of antenatal care, postnatal care, and skilled birth delivery among these groups of women in Nigeria. Therefore, this review aimed to identify the factors that discourage the utilization of maternal healthcare services among Hausa women in Nigeria.

## **Materials and Methods**

This review utilized a systematic mixed studies from the findings of quantitative and qualitative studies (See Table 1). The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) were used to guide the systematic review.<sup>26</sup> The PRISMA flow diagram is presented in Figure 1.

**Review article**

1. Only research papers published in peer reviewed journal
2. Studies conducted in Nigeria
3. Studies conducted among Hausa women of reproductive age
4. Studies with factors that discourage or promote utilization of maternal health care services in the primary health care setting
5. Studies in the English language

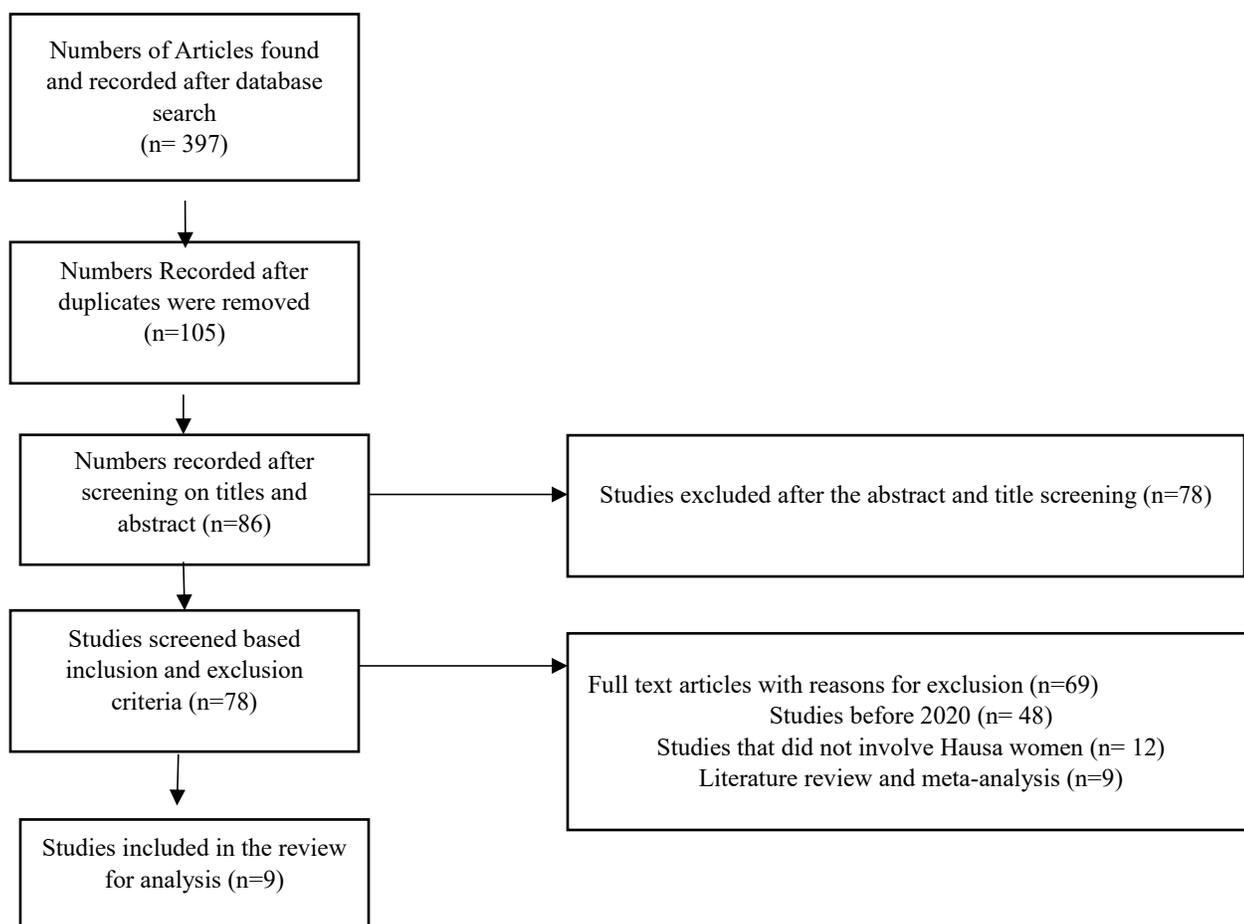
**Exclusion criteria**

1. Commentary papers and review papers
2. Studies in the Hausa language
3. Women from another tribe
4. Research papers before the year 2020

**Search strategy**

Electronic databases such as Google Scholar, Medline, PubMed, and Science Direct were used to search for peer-reviewed articles. These sources were selected to ensure a broad range of sources and because they are versatile in health-related research topics. Keywords such as “antenatal care,” “maternal care”, “factors, “" utilization, “" barriers, “Hausa women, and Nigeria were terms used during the search. The key terms were used individually and in combination with “AND” and “OR” as Boolean operators to improve the effectiveness of the search. Only studies from the year 2020 to 2025 were included in the review.

**Inclusion criteria**



**Figure 1: PRISMA flow showing the selection of studies for the literature review**

### Methods of quality appraisal

All the studies identified were appraised using the Critical Appraisal Skill Program (CASP) Checklist for qualitative and quantitative studies. Studies were evaluated based on clarity of the research purpose and question, appropriateness of the design, eligibility criteria, sample size, data collection procedure, and type of statistical analysis employed, and result presentation.

### Risk of bias and certainty of evidence assessment

The certainty of evidence for each theme was assessed using the GRADE (Grading of Recommendations Assessment, Development and Evaluation) framework by ascertaining the methodological limitations, consistency of findings, and the quality of the data. The evidence was rated as high, moderate, and low certainty. The risk of bias assessment led to the final certainty rating presented in the result.

### Data synthesis

To analyze the data extracted from the results of the included studies, a thematic synthesis approach was used. A summary detailing authors and date, title, research objectives, methodology, and key findings is shown in Table 1.

### Results

From the data sources, search yielded 397 articles after which duplicates were removed, screening of titles and abstract were done, and screening of articles based on inclusion and exclusion criteria as seen in Figure 1. In total, 9 records were eligible and used for the review. The CASP qualitative and quantitative checklist<sup>27</sup> was used to appraise the quality of each paper differently for inclusion in this review. The CASP qualitative checklists have a total of 10 questions, while the CASP quantitative checklists have a total of 12 questions, and all the questions have equal points. During the assessment, articles were scored and ranged from 0-10 and 0-12, indicating low, moderate, and high quality. The 9 papers that were good for inclusion had clear details about methodology, method of data collection, statistical analysis, and findings.

**Table 1a. Summary of study findings**

S/N	Author/Year	Study Title/Location	Participants characteristic/study setting	Methodology (study design, sampling technique, and sample size)	Key Findings	CASP Rating	Overall Certainty of Evidence
1	Odetola, T. D., & Salmanu, R. A. (2021).	Factors influencing maternal health choices among women of reproductive age in Hausa communities in Ibadan, Nigeria: an exploratory study.	-Hausa women of reproductive age in three Hausa communities in Ibadan	-Cross-sectional missed methods -purposive sampling technique. - 253 Hausa women were recruited in the quantitative -5 men and 5 women were purposively recruited for the qualitative aspect.	94% are aware of family planning, but only 49.0% used them. Barriers to not using it were religious beliefs, culture, spouses' disapproval, and delayed fertility following use.	Moderate	Low

**Review article**

2	Sinai I, Azogu O, Dabai SS, et al. (2024).	Role of men in women's health service utilization in northern Nigeria: a qualitative study of women, men, and provider perspectives	-Women, men, and mothers of newborns -PHC facilities in three northern Nigerian states: Bauchi, Kebbi, and Sokoto.	Phenomenological qualitative design -Convenience sampling technique -The total number of participants was 510	Cultural influences such as gender and the need for a husband's support and permission were barriers to contraceptive use.	Moderate	Low-Moderate
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**Table 1b: Summary of findings**

S/N	Author/Year	Study Title/Location	Participants characteristic/study setting	Methodology (study design, sampling technique, and sample size)	Key Findings	CASP Rating	Overall Certainty of Evidence
3	Alhaji, M. M., Umar, L., Yusuf, M. A., Nyaga, R., Singh, J., Okafor, A., ... & Ozohu-Suleiman, Y. (2025).	Supply and demand barriers to PHC maternal care services uptake: qualitative and behavioural insights from Gombe State, Nigeria. <i>BMC Pregnancy and Childbirth</i> , 25(1), 939.	-Mothers, husbands and mothers-in-law, traditional and religious leaders & healthcare providers. -Was conducted in Dukku and Yamaltu Deba in Gombe State	-Qualitative research design -Purposive sampling -56 participants	Barriers such as costs of care, service quality, and PHC proximity, limited spousal support, and psychological biases impede care.	Moderate	Moderate
4	Sayyadi, B. M., Gajida, A. U., Garba, R., & Ibrahim, U. M. (2021).	Assessment of maternal health services: a comparative study of urban and rural primary health facilities in Kano State, Northwest Nigeria.	-3 urban local and 3 rural local governments in Kano State. - Women accessing maternal health care for the quantitative arm, while healthcare workers in charge of the facilities/units were selected for the qualitative arm of the study.	-The study utilized a comparative cross-sectional study design using a mixed method of data collection -Multistage sampling method -Sample size 219 for quantitative and 6 for qualitative	There is a disparity between urban and rural communities in the utilization of maternal health services. Also, ignorance prevents access to care. The services provided were satisfactory.	Moderate	Low

**Table 1c: Summary of findings**

S/N	Author/Year	Study Title/Location	Participants characteristic/study setting	Methodology (study design, sampling technique, and sample size)	Key Findings	CASP Rating	Overall Certainty of Evidence
5	Kolawole, B. O., Ucho Ejiroghene, C., Euba, M. I., Mercy, A. O., Adabra, M. S., & Onyeyili, I. N. (2024).	Perceived factors affecting the utilization of maternity services in primary healthcare centre in a rural community in Northcentral, Nigeria	-Women of childbearing age -Malete Community, a rural settlement in Kwara State, Northcentral Nigeria	-Descriptive cross-sectional study -sampling procedure not stated -Sample size is 240	-65.9% utilized ANC at PHC, 29.1% gave birth at PHC, and 35% utilized PNC at the PHC. - Factors like education, age, staff shortage, long waiting period, husband's support, and Prior complications affected utilization	Low	low
6	Chris O.A. (2025).	Attitude towards access and use of maternal health services at Sabon Gari, Zaria, Kaduna State	-Women of childbearing age in Sabon Gari, Kaduna State	-Cross-sectional study design -Sample size is 385 -The sample procedure was not stated	Community encouragement increased uptake of maternal health services, while barriers such as a shortage of drugs discouraged uptake of antenatal and post-natal services.	Moderate	Low

**Table 1d: Summary of findings**

S/N	Author/Year	Study Title/Location	Participants characteristic/study setting	Methodology (study design, sampling technique, and sample size)	Key Findings	CASP Rating	Overall Certainty of Evidence
7	Abu-Ubaida, S., Musa, F. G. (2025).	Prenatal Care in Hausaland: A Comparison of Traditional and Modern	Participants were Community leaders, healthcare workers, and pregnant women -The study setting was not stated	-Qualitative with the use of secondary data -The sample size and sampling procedure were not well defined	87% of women were aware, while only 52.3% actively attended regular prenatal visits. Lack of finance, limited access to healthcare facilities, and preference for traditional care practices hindered utilization	Moderate	Low
8	Sabo A,	Determinants of	-Women of	-The study utilized a	92.5% are aware of	Moderate	Low

**Review article**

Alzoubi MM., Saidu AY, Usman US, Saulawa IM, Al-Mugheed K, Farghaly Abdelaliem SM, and Saeed Alabdullah AA (2024).	Utilization of Antenatal Care Services Among Women of Childbearing Age in Jigawa State, Nigeria	childbearing age In Isari town, Dutse local government area of Jigawa State.	cross-sectional survey research method -Sample size is 400 -Simple random sampling	ANC, 85.7% see ANC as necessary, 57.8% attended at least 4 times during pregnancy; tertiary education, civil service, knowledge of danger signs, husband support improved uptake		
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**Table 1e: Summary of findings**

S/N	Author/Year	Study Title/Location	Participants characteristic/study setting	Methodology (study design, sampling technique, and sample size)	Key Findings	CASP Rating	Overall Certainty of Evidence
9	Airaoje, O. K., Akintayo, A. O., Obada, A. A., & Uchendu, C. E. (2025).	Maternal Health Status in Dikwa Local Government Area of Borno State, Nigeria.	-Women of childbearing age in Dikwa Local Government Area of Borno State.	-cross-sectional study design -Sample size is 320 -Multi-stage sampling procedure	44.4% prefer traditional birth due to trust; poor infrastructure, distance, financial barriers, and employment instability were factors that hindered utilization only 18.1% rated services excellent	Moderate	Low

## Discussion

This study used the GRADE approach to obtain the certainty of evidence from the included studies, and the result showed that the certainty of evidence was generally low to moderate, and this is because most studies employed cross-sectional and qualitative designs. The rating started with lower-level evidence and was further downgraded because some studies used a purposive sampling procedure and the studies were not generalizable. There was consistency of findings across studies regarding factors that discourage the use of maternal health services and factors that encourage the use of maternal health services.

## Factors that discourage the use of maternal health services among Hausa women

Findings from this review showed that factors affecting the utilization of maternity services at the primary health center include: mothers' level of education and age, ignorance, insufficient health workers, long waiting period, history of pregnancy complications, and shortage of drugs.<sup>28,29,30</sup> Moreover, religious beliefs, culture, and spouses' disapproval were identified as barriers to the use of maternal health services and modern family planning methods among Hausa women in Ibadan.<sup>31,32</sup> Similarly, cultural factors also played a crucial role, as some women preferred traditional care practices over medical

consultations due to cultural beliefs and a lack of trust in modern healthcare services.<sup>12</sup> This is because the Hausas still maintain a mutual cultural identity, underpinned by shared religious practices and traditional rites that bring about social cohesion and cultural continuity.<sup>33</sup> And this makes it a barrier for Hausa women to utilize maternal health care services.<sup>31</sup> Addressing cultural factors through community engagement and respectful health education could enhance service uptake and reduce preventable maternal complications. The patriarchal culture in Nigeria prevents women from making decisions regarding their health.<sup>34</sup> Women's access to maternal healthcare services is greatly affected by husbands' family approval and social support. This calls for a need to end all forms of inhuman discrimination and gender inequality, as this will give women the opportunity to decide on their health needs<sup>35</sup> thus the need for community-led health promotion programs.

This review also found that using the social ecological method revealed that the direct and indirect costs of care, service quality, and primary health care proximity were the main supply-side and institutional-level factors, individual (poor salience), relational (limited spousal support), and community-level (traditional maternal practices) factors that discourage the use of maternal health services.<sup>36</sup> Furthermore, Airaoje et al. (<sup>37</sup> in their study among Hausa women, reported that 61.9%, 79.4%, and 47.8% of the respondents were unable to access maternal health services due to poor infrastructure and long travel distances to healthcare facilities, financial barriers, and employment instability, respectively. The study further showed that 44.4% of respondents prefer traditional birth attendants over medical professionals, reflecting a deep-rooted trust in traditional practices.

### **Factors that encourage the use of maternal health services among Hausa women**

Findings from the study revealed that mothers were encouraged by their community to access maternal health services available at primary health centres.<sup>29</sup> Similarly, tertiary education, being a civil servant, individuals' knowledge about pregnancy and danger signs, and those receiving antenatal care support from their husbands were factors that influenced antenatal care utilization.<sup>38</sup>

### **Conclusion**

This review has shown that the various factors that discourage the utilization of maternal healthcare services in

the primary healthcare setting among Hausa women in Nigeria are: cultural and religious practices, mothers' level of education and age, ignorance, insufficient health workers, long waiting period, history of pregnancy complications, and shortage of drugs. While the factors that encourage the utilization of maternal healthcare services in the primary healthcare setting among Hausa women in Nigeria are: tertiary education, being a civil servant, individuals' knowledge about pregnancy and danger signs, and those receiving antenatal care support from their husbands. This review contributes to the promotion of maternal health by identifying the factors, thus providing invaluable assistance to researchers and practitioners. It also provides evidence that policymakers can use to develop a culture-sensitive approach to tackle the factors that hinder maternal health services utilization among Hausa women, leading to healthier pregnancies outcome future generations of Hausa women.

### **Recommendation**

1. The local government should strengthen the primary healthcare centers and make them more accessible and cost-effective for Hausa women to utilize
2. There should be collaboration between the primary healthcare centers and the community to foster community engagement

### **Limitations**

Most of the studies reported are cross-sectional and qualitative, which limits causal-inference and which resulted to a low-grade certainty of evidence. Also, some of the studies used a purposive sampling procedure, which can limit the generalizability of the findings. Lastly, there could be language bias since only English studies were considered despite the peculiar population of the study.

### **Registration & protocol**

No registration of protocol was made. The review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA)

### **Source of funding**

This study did not receive any form of funding or grant.

### **Conflict of interest**

### Review article

The authors declare no conflict of interest regarding this publication.

### List of abbreviations

<b>ANC</b>	Antenatal care
<b>PNC</b>	Postnatal care
<b>SBA</b>	Skilled birth attendant
<b>PHC</b>	Primary health care
<b>CASP</b>	Critical Appraisal Skills Programme
<b>GRADE</b>	Grading of recommendations assessment, development, and evaluation

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**Introduction:** Adeleye Victora  
**Methodology:** Adeleye Victora & Dr. Lawal Saheed  
**Review and editing:** Adeleye Victora & Dr. Lawal Saheed

### Data availability

The data are available on request from the corresponding author.

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**Review article**

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