

## **Investigations into the Factors Influencing Maternal Mortality Among Women of Childbearing Age in Ifoyintedo Community, Yewa South Local Government Area, Ogun State**

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### **Abstract:**

### **Introduction**

Maternal mortality remains a significant global health issue, with a disproportionate burden on women in low- and middle-income countries. Despite various preventive measures, maternal deaths continue to be a leading cause of morbidity and mortality among women of childbearing age. Understanding the factors contributing to maternal mortality and the preventive measures is crucial for developing effective strategies to reduce its incidence.

### **Objective**

The aim of this study was to identify and analyze the factors influencing maternal mortality among women of childbearing age in Ifoyintedo community. It also sought to examine the level of awareness of maternal mortality, its causes, and the preventive measures taken by women in this community.

### **Method of Analysis**

This cross-sectional study surveyed 200 women of childbearing age in Ifoyintedo. Data were collected using structured questionnaires designed to assess knowledge, awareness, and preventive measures related to maternal mortality. Descriptive statistics were used to summarize the data, while chi-square tests assessed the relationship between sociodemographic characteristics and knowledge of maternal mortality.

### **Results**

The findings revealed that 95% of women were aware of maternal mortality, with 80% recognizing the role of high blood pressure during pregnancy (pre-eclampsia and eclampsia) as a

leading cause. Early recognition and management of complications were identified as key preventive measures by 84% of the participants. Furthermore, 86% acknowledged the importance of postpartum monitoring, while 67% indicated that improving the quality of healthcare services could reduce maternal mortality. Socio-demographic factors such as educational level and marital status showed significant relationships with knowledge about maternal mortality, with p-values of 0.016 and 0.040, respectively, suggesting that higher education and marital status influence awareness.

## Conclusion

This study highlights the significant awareness of maternal mortality among women in Ifoyintedo, but also reveals gaps in knowledge regarding specific causes and preventive measures. Education level and marital status were found to play crucial roles in shaping women's awareness of maternal health issues. The findings emphasize the need for targeted health education programs and improved healthcare infrastructure in rural areas to reduce maternal mortality rates in the community.

**Keywords:** Maternal mortality, Socio-demographic factors, Preventive measures, Awareness, Ifoyintedo, Ogun State, Chi-square analysis.

## Background to the study

Maternal health encompasses the healthcare dimensions of preconception, prenatal, antenatal, and postnatal care, aiming to ensure a positive experience and reduce maternal morbidity and mortality. Maternal mortality refers to the death of a woman during pregnancy or within 42 days of termination, from causes related to pregnancy or its management, excluding accidental or incidental causes (WHO, 2023). The implications of maternal mortality extend beyond individual families, as motherless children often face adverse physiological and psychological outcomes, leading to increased vulnerability in communities (Kassebaum et al., 2022). Despite global efforts to reduce maternal mortality, significant disparities persist, particularly in low-income regions. The World Health Organization (WHO) estimated that approximately 287,000 women died due to pregnancy-related complications in 2020, with sub-Saharan Africa accounting for nearly 70% of these deaths (WHO, 2023). Common causes include postpartum hemorrhage, hypertensive disorders, infections, obstructed labor, and complications from unsafe abortions (Say et al., 2023). Studies have shown that maternal mortality is significantly associated with poor access to skilled birth attendants, delays in seeking care, inadequate health infrastructure, and sociocultural barriers that limit women's autonomy in making healthcare decisions (Moller et al., 2023; Bauserman et al., 2022). While developed countries have drastically reduced maternal deaths through improved healthcare services and policies, developing nations continue to struggle with weak healthcare systems and limited financial and human resources (Tessema et al., 2023).

Nigeria remains one of the countries with the highest maternal mortality rates, with an estimated 512 deaths per 100,000 live births in 2020 (UNICEF, 2023). Rural communities, such as those in Yewa South Local Government Area, Ogun State, are disproportionately affected due to poor access to quality healthcare services, reliance on traditional birth attendants, and socioeconomic limitations (Adewuyi et al., 2023). Studies indicate that maternal mortality in Nigeria is exacerbated by poor healthcare-seeking behaviors, low education levels, and systemic healthcare inefficiencies (Banke-Thomas et al., 2022). Women in these communities often lack adequate knowledge of maternal health risks and face challenges in accessing timely and skilled obstetric care (Fawole et al., 2022). The lifetime risk of maternal death in sub-Saharan Africa remains high, with one in 37 women at risk, compared to one in 5,400 in high-income countries (WHO, 2023).

Several maternal health programs have been implemented in Nigeria, including the Safe Motherhood Initiative, free maternal healthcare services, and improved antenatal care strategies. However, gaps persist in service delivery, particularly in rural areas where healthcare facilities are scarce, and utilization rates remain low (Okonofua et al., 2023). Research indicates that effective maternal health interventions must go beyond healthcare provision and address broader social determinants such as poverty, education, and cultural norms that shape maternal health outcomes (Tessema et al., 2023; Adedokun et al., 2023). Strengthening emergency obstetric services, increasing community awareness, and ensuring adequate healthcare workforce distribution are critical strategies to reduce maternal mortality (Chukwuma et al., 2023). This study aims to investigate the factors influencing maternal mortality among women of childbearing age in Ifoyintedo community of Yewa South Local Government Area, Ogun State. Understanding these determinants will provide valuable insights into barriers to maternal healthcare and inform evidence-based interventions to reduce maternal deaths. By identifying knowledge gaps, healthcare access challenges, and potential policy interventions, this research seeks to contribute to ongoing efforts to improve maternal health outcomes in Nigeria.

## **Materials and methods**

### **Study design**

The study used a descriptive research design to gather and analyze data on maternal mortality factors among women of childbearing age. This design involved organizing and presenting data through visual aids like graphs and charts for better clarity. Questionnaires were used to collect detailed information, focusing on identifying factors influencing maternal mortality in the study population.

### **Study location**

The study was conducted in Yewa South Local Government Area (LGA) of Ogun State, Nigeria, specifically at the Ifoyintedo Community Primary Health Center. Yewa South is located in the southwestern region of Nigeria and is predominantly rural, with agriculture as the main economic activity. The local population is mainly composed of farmers, traders, and a small percentage of civil servants. Ifoyintedo, a community within this LGA, is characterized by its relatively small size and rural setting, which can impact access to healthcare services. The Primary Health Center in Ifoyintedo serves as a critical healthcare facility for the community, providing essential maternal and child health services, though it faces challenges common to rural health centers, such as limited resources and access to advanced medical care. The health center plays a key role in addressing the healthcare needs of the population, including maternal health, which makes it an ideal location for investigating the factors influencing maternal mortality in the area.

### **Study population**

The study population consists of women of childbearing age, defined as those between the ages of 15 and 49 years.

### **Sample size**

The sample size for this study was determined using the Taro Yamane formula, with a total of 200 women of childbearing age selected from the Ifoyintedo Community in Ogun State. The formula was applied to calculate the appropriate sample size based on the population of the community and the desired level of significance. The study employed a combination of nominal and ordinal scales to measure various factors influencing maternal mortality among women of childbearing age, as well as an interval scale to assess the relationship between maternal age and maternal mortality. The data collected was compiled and edited to ensure consistency and accuracy before analysis.

## Instrument for data collection

The research instrument used in this study was a well-structured, closed-ended questionnaire designed to collect data aligned with the study's aims and objectives. The questionnaire assessed the opinions of women of childbearing age on maternal mortality, ensuring clarity and ease of response. It was divided into two sections: the first section gathered demographic information, including age group, marital status, income level, prenatal care attendance, and work experience. The second section comprised questions directly related to factors influencing maternal mortality. A structured, modified Likert scale with "Yes" or "No" response options was used to ensure consistency in data collection and facilitate analysis.

## Data Analysis

The collected data was coded and entered into the Statistical Package for Social Sciences (SPSS) for analysis. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the data. The results were presented using tables and charts to enhance clarity and interpretation. Data quality checks, including consistency and completeness verification, were conducted before analysis to ensure accuracy and reliability.

## Ethical considerations

Ethical approval for the study was obtained from the appropriate authorities, including the head of the health facility. The purpose and objectives of the research were clearly explained to both the facility management and the study participants. Informed consent was obtained from all respondents, ensuring their voluntary participation. The study adhered to ethical principles, including respect for autonomy, confidentiality, and non-maleficence. Participants were assured that all information provided would remain confidential and used solely for research purposes. Measures were taken to protect respondents' identities, and data was stored securely to prevent unauthorized access.

## Results

**Table 1: Socio-Demographic Characteristics of the Respondents**

VARIABLES	FREQUENCY (n=200)	PERCENTAGE (%)
<b>Age</b>		
Below 18 years	5	2.5%
19-25 years	40	20%
26-32 years	60	30%
33-39 years	55	27.5%
40-46 years	30	15%
47 and above	10	5%
Mean± Standard Deviation	32.4±8.18	
<b>Ethnicity</b>		
Hausa	15	7.5%
Igbo	45	22.5%
Yoruba	130	65%
Others	10	5%
<b>Educational Level</b>		
Non-formal	10	5%
Primary	20	10%
Secondary	70	35%
Tertiary	100	50%
<b>Religion</b>		
Islam	60	30%

Christianity	135	67.5%
Others	5	2.5%
<b>Marital Status</b>		
Single	50	25%
Married	120	60%
Divorced	10	5%
Separated	10	5%
Widowed	10	5%
<b>Occupation</b>		
Unemployed	30	15%
Trader	50	25%
Farmer	40	20%
Civil Servant	50	25%
Others	30	15%
<b>Parity</b>		
Nulliparous (0 births)	25	12.5%
Primiparous (1 birth)	50	25%
Multiparous (2-4 births)	90	45%
Grand multiparous (5+ births)	35	17.5%

The socio-demographic characteristics of the respondents reveal a diverse distribution across various variables. The age of respondents ranged from below 18 years to 47 years and above, with a mean age of 32.4 years (SD = 8.18). The majority (30%) were between 26-32 years, followed by 27.5% within the 33-39 age group, while only 2.5% were below 18 years. Ethnic distribution showed that 65% of the respondents were Yoruba, while 22.5% were Igbo, 7.5% were Hausa, and 5% belonged to other ethnic groups. Educational attainment among the respondents varied, with 50% having tertiary education, 35% possessing a secondary education, 10% attaining only primary education, and 5% having no formal education. Regarding religious affiliation, 67.5% of the respondents identified as Christians, 30% as Muslims, and 2.5% as adherents of other religions. Marital status distribution indicated that the majority (60%) were married, while 25% were single, and the remaining 15% were either divorced, separated, or widowed in equal proportions.

In terms of occupation, 25% of the respondents were traders, 25% were civil servants, 20% were farmers, and 15% were unemployed, while the remaining 15% engaged in other forms of employment. Parity distribution showed that 45% of the women had between two to four births, 25% had only one birth, 17.5% had five or more births, while 12.5% had never given birth.

**Table 2: Knowledge of Women of Childbearing Age About Maternal Mortality**

Questions	Frequency (n=200)	Percentage (%)
Are you aware of maternal mortality?		
Yes	190	95%
No	10	5%
Are you aware of the factors that affect maternal mortality?		
Yes	140	70%
No	60	30%
Do you know that maternal mortality affects mothers?		
Yes	180	90%
No	20	10%
Do you know that maternal mortality affects women of childbearing age?		
Yes	185	92.5%

No	15	7.5%
Do you know that antenatal care reduces the risk of maternal mortality?		
Yes	175	87.5%
No	25	12.5%
Are you aware that healthcare facilities play a role in preventing maternal mortality?		
Yes	160	80%
No	40	20%
Do you know that complications during pregnancy and childbirth can lead to maternal mortality?		
Yes	155	77.5%
No	45	22.5%
Do you know that early marriage and frequent childbirth increase the risk of maternal mortality?		
Yes	145	72.5%
No	55	27.5%
Are you aware that poor socioeconomic status contributes to maternal mortality?		
Yes	150	75%
No	50	25%
Do you know that family planning can help reduce maternal mortality?		
Yes	170	85%
No	30	15%

The findings on the knowledge of women of childbearing age about maternal mortality revealed a high level of awareness among respondents. A significant majority (95%) were aware of maternal mortality, while only 5% reported no awareness. Knowledge of factors affecting maternal mortality was also substantial, with 70% acknowledging awareness, whereas 30% were unaware. The impact of maternal mortality on mothers was widely recognized, as 90% of respondents agreed that maternal mortality affects mothers, while 10% did not share this view. Similarly, 92.5% of the respondents understood that maternal mortality affects women of childbearing age, while 7.5% were unaware of this fact. The role of antenatal care in reducing maternal mortality was well acknowledged by 87.5% of respondents, while 12.5% lacked this knowledge. Awareness of the role of healthcare facilities in preventing maternal mortality was evident among 80% of respondents, whereas 20% did not recognize this. Understanding the link between complications during pregnancy and childbirth with maternal mortality was relatively high, with 77.5% of respondents affirming this, while 22.5% did not. Knowledge of the risks associated with early marriage and frequent childbirth was observed among 72.5% of the women, while 27.5% were not aware of this association. The role of poor socioeconomic status as a contributing factor to maternal mortality was recognized by 75% of the respondents, whereas 25% lacked this awareness. Lastly, awareness of the importance of family planning in reducing maternal mortality was noted among 85% of the women, while 15% did not perceive it as a contributing factor.

**Table 3: Respondents' Perception of the Causes of Maternal Mortality**

Variable	Frequency (n=200)	Percentage (%)
Does high blood pressure during pregnancy (pre-eclampsia and eclampsia) cause maternal mortality?	160	80%
Does severe bleeding (especially postpartum hemorrhage) cause	175	87.5%

maternal mortality?		
Does infection (usually after childbirth) contribute to maternal mortality?	150	75%
Does unsafe abortion lead to maternal mortality?	120	60%
Does prolonged and obstructed labor increase the risk of maternal mortality?	140	70%
Can high parity (multiple pregnancies) contribute to maternal mortality?	110	55%
Does inadequate use of antenatal care services increase maternal mortality?	170	85%
Do cultural beliefs and practices contribute to maternal mortality?	130	65%
Does lack of access to skilled birth attendants increase maternal mortality?	165	82.5%
Does poor nutrition and anemia contribute to maternal mortality?	135	67.5%
Can teenage pregnancy increase the risk of maternal mortality?	145	72.5%
Does poverty and lack of financial resources contribute to maternal mortality?	155	77.5%

The respondents' perception of the causes of maternal mortality revealed that a significant proportion recognized key risk factors contributing to maternal deaths. The majority (80%) acknowledged that high blood pressure during pregnancy, including pre-eclampsia and eclampsia, could lead to maternal mortality. Similarly, 87.5% of respondents identified severe bleeding, particularly postpartum hemorrhage, as a major cause of maternal deaths. Three-quarters of the participants (75%) were aware that infections, especially those occurring after childbirth, could contribute to maternal mortality. Unsafe abortion was considered a contributing factor by 60% of respondents, while 70% recognized prolonged and obstructed labor as increasing the risk of maternal mortality. More than half of the respondents (55%) believed that high parity, or multiple pregnancies, could lead to maternal mortality. Additionally, 85% agreed that inadequate use of antenatal care services increases maternal mortality, while 65% identified cultural beliefs and practices as contributing factors. A considerable proportion (82.5%) acknowledged that lack of access to skilled birth attendants during delivery heightens the risk of maternal deaths. Furthermore, 67.5% of respondents were aware that poor nutrition and anemia could negatively impact maternal health, and 72.5% recognized that teenage pregnancy increases the likelihood of maternal mortality. Lastly, 77.5% of respondents acknowledged that poverty and financial constraints play a significant role in increasing maternal mortality rates.

**Table 4: Factors Affecting Maternal Mortality Among Women of Childbearing Age**

Factors	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Lack of access to quality healthcare services	90 (45%)	80 (40%)	10 (5%)	10 (5%)	10 (5%)
Inadequate use of antenatal care services	85 (42.5%)	75 (37.5%)	15 (7.5%)	15 (7.5%)	10 (5%)
Poor socioeconomic status (poverty)	88 (44%)	70 (35%)	12 (6%)	18 (9%)	12 (6%)
Teenage pregnancy	80 (40%)	65 (32.5%)	20 (10%)	25 (12.5%)	10 (5%)
High parity (multiple pregnancies)	70 (35%)	60 (30%)	30 (15%)	25 (12.5%)	15 (7.5%)
Early marriage	75 (37.5%)	60 (30%)	25 (12.5%)	25 (12.5%)	15 (7.5%)
Cultural beliefs and traditional practices	65 (32.5%)	55 (27.5%)	35 (17.5%)	30 (15%)	15 (7.5%)

Limited knowledge about maternal health	78 (39%)	67 (33.5%)	25 (12.5%)	20 (10%)	10 (5%)
Inadequate nutrition and anemia	72 (36%)	60 (30%)	30 (15%)	25 (12.5%)	13 (6.5%)
Lack of skilled birth attendants during delivery	95 (47.5%)	70 (35%)	15 (7.5%)	10 (5%)	10 (5%)
Unsafe abortion	60 (30%)	50 (25%)	40 (20%)	30 (15%)	20 (10%)
Delay in seeking medical care during pregnancy or childbirth	85 (42.5%)	65 (32.5%)	20 (10%)	20 (10%)	10 (5%)
Poor family planning practices	70 (35%)	60 (30%)	35 (17.5%)	20 (10%)	15 (7.5%)
Weak healthcare infrastructure (lack of hospitals, equipment, and personnel)	92 (46%)	65 (32.5%)	18 (9%)	15 (7.5%)	10 (5%)

The findings from the study reveal a range of factors perceived to contribute to maternal mortality among women of childbearing age. A significant proportion of respondents (82.5%) either strongly agreed or agreed that **lack of access to quality healthcare services** is a major factor influencing maternal mortality. Similarly, **inadequate use of antenatal care services** was recognized as a contributing factor by 80% of respondents, reinforcing the importance of routine maternal health checkups in preventing pregnancy-related complications. Economic constraints also emerged as a critical determinant, with **79% of respondents attributing maternal mortality to poor socioeconomic status**, highlighting the role of poverty in limiting access to essential healthcare services. Additionally, **early marriage (67.5%) and teenage pregnancy (72.5%)** were perceived as significant risk factors, likely due to the increased vulnerability of young mothers to pregnancy-related complications. **High parity (multiple pregnancies)** was also acknowledged by 65% of respondents as a contributing factor, emphasizing the potential health risks associated with frequent childbirth. Cultural influences were another key concern, as **60% of respondents agreed that traditional beliefs and practices** negatively impact maternal health. Limited knowledge about maternal health (72.5%) and inadequate nutrition (66%) were also recognized as contributing factors, further reinforcing the role of education and proper maternal care in reducing mortality risks. The **lack of skilled birth attendants during delivery** was strongly emphasized, with 82.5% of respondents acknowledging its role in poor maternal health outcomes. Unsafe abortion, a significant yet often underreported contributor to maternal mortality, was recognized by 55% of respondents as a risk factor, suggesting the need for better reproductive health education and access to safe abortion services where permitted. **Delays in seeking medical care during pregnancy or childbirth** were also highlighted by 75% of respondents, pointing to systemic issues in maternal healthcare accessibility. Furthermore, **poor family planning practices (65%)** and weak healthcare infrastructure (78.5%) were seen as major obstacles to improving maternal health outcomes.

**Table 5: Preventive and Control Measures for Maternal Mortality Among Women of Childbearing Age**

Preventive Measure	Frequency (n=200)	Percentage (%)
Do you believe that quality antenatal and delivery care can prevent and control maternal mortality?	200	100%
Do you think early recognition and management of complications can help prevent maternal mortality?	168	84%
Do you agree that nutrition counseling during pregnancy can help prevent maternal mortality?	158	79%
Do you think postpartum monitoring can prevent maternal	172	86%

mortality?		
Do you believe improving the quality of care in health facilities can prevent maternal mortality?	134	67%
Do you think adequate rest and sleep during pregnancy can prevent maternal mortality?	146	73%
Do you agree that promoting family planning and spacing births can reduce the risk of maternal mortality?	180	90%
Do you believe that access to skilled birth attendants during delivery can prevent maternal mortality?	185	92.5%
Do you think education and awareness campaigns about maternal health can reduce maternal mortality?	175	87.5%
Do you agree that improving transportation to health facilities can prevent maternal mortality?	160	80%
Do you believe that providing financial support to low-income families can help reduce maternal mortality?	150	75%
Do you think addressing cultural beliefs and practices can reduce maternal mortality?	130	65%
Do you think screening for high-risk pregnancies can help prevent maternal mortality?	165	82.5%

The responses regarding preventive and control measures for maternal mortality among women of childbearing age indicate a strong consensus on several key strategies. All respondents (100%) believed that quality antenatal and delivery care can prevent and control maternal mortality. A majority, 84%, agreed that early recognition and management of complications could play a crucial role in preventing maternal mortality. Nutrition counseling during pregnancy was recognized as important by 79% of respondents, while 86% felt that postpartum monitoring could significantly reduce maternal mortality. Improving the quality of care in health facilities was seen as a preventive measure by 67% of the participants, and 73% of respondents considered adequate rest and sleep during pregnancy to be important in preventing maternal mortality. A highly supported measure was promoting family planning and spacing births, with 90% of respondents agreeing that it could reduce maternal mortality risk. The belief in the importance of access to skilled birth attendants was shared by 92.5% of the participants, and 87.5% felt that education and awareness campaigns about maternal health could help reduce maternal mortality. The need for improved transportation to health facilities was endorsed by 80% of the respondents, while 75% supported providing financial support to low-income families as a means to reduce maternal mortality. Addressing cultural beliefs and practices was seen as a helpful measure by 65% of respondents, and 82.5% believed that screening for high-risk pregnancies could prevent maternal mortality.

**Table 6: Relationship Between Socio-Demographic Characteristics and Respondents' Knowledge of Maternal Mortality**

Variable	Knowledge of Maternal Mortality (Yes)	(No)	$\chi^2$	P-Value
<b>Age</b>				
Below 18 years	4	1	3.50	0.006
19-25 years	38	2		
26-32 years	58	2		
33-39 years	52	3		
40-46 years	29	1		
47 and above	9	1		
<b>Ethnicity</b>				
Hausa	14	1	7.10	0.112

Igbo	43	2		
Yoruba	125	5		
Others	8	2		
<b>Educational Level</b>				
Non-formal	8	2	11.9	0.016
Primary	18	2		
Secondary	63	7		
Tertiary	101	6		
<b>Religion</b>				
Islam	58	2	7.60	0.002
Christianity	128	7		
Others	4	1		
<b>Marital Status</b>				
Single	46	4	9.75	0.040
Married	115	5		
Divorced	9	1		
Separated	9	1		
Widowed	8	2		
<b>Occupation</b>				
Unemployed	26	4	4.30	0.72
Trader	44	6		
Farmer	36	4		
Civil Servant	45	5		
Others	30	0		
<b>Parity</b>				
Nulliparous (0 births)	23	2	2.70	0.001
Primiparous (1 birth)	46	4		
Multiparous (2-4 births)	79	11		
Grand multiparous (5+ births)	35	0		

The relationship between socio-demographic characteristics and respondents' knowledge of maternal mortality was examined through a Chi-square test. The results showed significant associations between several factors and respondents' awareness. For instance, age was found to be statistically significant, with the Chi-square value of 3.50 ( $p = 0.006$ ), indicating that younger age groups had greater knowledge of maternal mortality. Ethnicity did not show a significant association ( $p = 0.112$ ), although respondents from the Yoruba ethnic group had the highest awareness. Educational level was significantly associated with knowledge (Chi-square = 11.9,  $p = 0.016$ ), with those having higher levels of education, particularly tertiary education, showing better knowledge of maternal mortality. Religion also had a significant impact on respondents' knowledge (Chi-square = 7.60,  $p = 0.002$ ), with those identifying as Muslims exhibiting greater knowledge compared to other religious groups. Marital status was significant (Chi-square = 9.75,  $p = 0.040$ ), with married respondents demonstrating more awareness of maternal mortality. In contrast, occupation did not significantly affect knowledge ( $p = 0.72$ ), though traders showed relatively higher awareness. Parity was another significant factor (Chi-square = 2.70,  $p = 0.001$ ), with respondents who had fewer children (nulliparous) displaying better knowledge about maternal mortality.

## Discussion of Findings

The results of this study underscore several critical aspects in addressing maternal mortality among women of childbearing age. The findings align with recent literature, highlighting that access to quality healthcare, education, and socio-cultural interventions are essential in reducing maternal mortality. The overwhelming recognition (100%) of the importance of quality antenatal

and delivery care as a preventive measure reflects well-established evidence in the field. Studies such as those by Goudar et al. (2020) and Doku et al. (2021) emphasize the pivotal role of skilled care during pregnancy and childbirth in reducing maternal mortality. The results of this study, which show that 100% of respondents believe in the efficacy of antenatal and delivery care, corroborate these findings, suggesting that women's awareness of the life-saving importance of professional healthcare services is critical. Further, the high percentage of participants (84%) recognizing early detection and management of complications as key to maternal health is consistent with findings from global maternal health studies, such as those by Souza et al. (2019), which argue that timely medical intervention during complications such as pre-eclampsia and postpartum hemorrhage significantly improves maternal outcomes. In this study, 79% of respondents recognized nutrition counseling as vital during pregnancy. This finding aligns with research by Martorell and Zongrone (2021), which highlights the importance of maternal nutrition in reducing maternal and fetal health risks, including maternal mortality.

Postpartum monitoring, endorsed by 86% of the respondents, is in agreement with studies by Yaya et al. (2020), who found that post-delivery care, including monitoring for complications like infections, hemorrhage, and hypertension, is a crucial component of maternal mortality prevention. This is particularly relevant in low-resource settings where immediate medical attention is not always available. The belief that improving the quality of healthcare facilities is an essential preventive measure, as reported by 67% of participants, resonates with the findings of Assefa et al. (2022), who argue that enhancing the functionality and accessibility of health facilities is key to reducing maternal mortality rates. The role of adequate rest and sleep, highlighted by 73% of respondents, is a lesser discussed but emerging factor. Research by Ramakrishnan et al. (2020) shows that proper rest, combined with mental health support, can contribute to improved maternal well-being and reduced risks during pregnancy and childbirth. Family planning and spacing of births were recognized by 90% of the participants as crucial in mitigating maternal mortality, aligning with a wealth of evidence, including studies by Ali et al. (2021), which demonstrate that optimal birth spacing reduces the risks associated with early pregnancy and multiple pregnancies. Moreover, the importance of access to skilled birth attendants, acknowledged by 92.5% of the respondents, is strongly supported in the global literature, as seen in studies like those by Fawole et al. (2020), which link the presence of skilled care during delivery with significantly lower maternal mortality rates. The findings also underline the significance of socio-economic and cultural factors. The high percentage (80%) who acknowledged the importance of transportation improvements is in line with studies such as that of Chowdhury et al. (2021), which illustrate how inadequate transportation systems contribute to delays in seeking timely medical care, thus increasing maternal mortality risks. The recognition of financial support for low-income families (75%) resonates with research by Geller et al. (2020), which argues that financial constraints are a significant barrier to accessing quality maternal healthcare in many regions. Cultural beliefs and practices, recognized by 65% of respondents, have been found to play a considerable role in maternal health outcomes. As shown in the work by Nkwankwo et al. (2022), cultural beliefs surrounding childbirth often lead to delays in seeking appropriate care, contributing to poor maternal outcomes. Furthermore, the importance of screening for high-risk pregnancies, supported by 82.5% of respondents, reflects a growing body of evidence emphasizing the role of early detection in managing conditions such as hypertension, diabetes, and fetal growth restrictions, which, if not managed appropriately, can lead to maternal mortality (Alemayehu et al., 2020).

## Conclusion

This study has provided valuable insights into the preventive and control measures for maternal mortality among women of childbearing age. The findings indicate that awareness and recognition of key interventions, such as quality antenatal and delivery care, early recognition of complications, nutrition counseling, and postpartum monitoring, are crucial in reducing maternal mortality. Moreover, the study highlights the significant role of socio-economic factors, including access to skilled birth attendants, family planning, and financial support, in mitigating

the risks associated with maternal mortality. These results are consistent with global evidence, emphasizing the need for a comprehensive, multi-faceted approach to maternal health that addresses healthcare system improvements, education, and the removal of socio-cultural and economic barriers. While respondents demonstrated a high level of knowledge about the preventive measures for maternal mortality, the study also underscores the importance of continued efforts in translating these interventions into practical and sustainable actions. It is essential for health policy makers, healthcare providers, and communities to work collaboratively to implement these preventive strategies, particularly in resource-limited settings where maternal mortality remains a significant challenge. Future research should focus on evaluating the effectiveness of these interventions in real-world settings, and on identifying innovative ways to overcome the barriers to accessing quality maternal healthcare. Ultimately, the reduction of maternal mortality requires not only the awareness of preventive measures but also the commitment to ensuring equitable access to healthcare services for all women, irrespective of their socio-economic status.

## References

1. Adedokun, O. T., Tessema, F., & Oyebode, T. (2023). Addressing social determinants of maternal health in Nigeria: Education, poverty, and cultural norms. *Global Health Review*, 18(4), 23-31.
2. Adewuyi, E. O., Ogunyemi, O. O., & Akinbami, L. J. (2023). Maternal health and the disparities in rural communities of Nigeria: A case study of Yewa South Local Government Area, Ogun State. *Nigerian Journal of Rural Health*, 35(1), 42-50.
3. Ali, M., et al. (2021). The impact of birth spacing on maternal and child health outcomes in low-income settings. *Journal of Global Health*.
4. Alemayehu, A., et al. (2020). Early detection and management of high-risk pregnancies in Sub-Saharan Africa. *International Journal of Women's Health*.
5. Assefa, N., et al. (2022). Improving maternal healthcare facilities in low-resource settings. *Lancet Global Health*.
6. Banke-Thomas, A., Thomas, K., & Mathai, M. (2022). Factors affecting maternal mortality in Sub-Saharan Africa: A review of obstetric and socioeconomic determinants. *African Health Journal*, 29(3), 52-61.
7. Bauserman, M., Burkholder, B. R., & Anzaldi, L. L. (2022). Maternal health in low-income settings: A global perspective on mortality and healthcare access. *Journal of Maternal and Child Health*, 25(1), 101-110.
8. Chukwuma, A. E., Okonofua, F., & Eze, P. (2023). Maternal health interventions and obstetric emergencies in Nigeria: A strategy for reducing maternal mortality. *Nigerian Journal of Health Policy*, 22(2), 133-139.
9. Chowdhury, M. E., et al. (2021). Transportation delays and maternal mortality in low-income countries: A systematic review. *BMC Health Services Research*.
10. Doku, D. T., et al. (2021). Timely medical interventions for pregnancy complications and maternal health. *The Lancet*.
11. Fawole, B., et al. (2020). Impact of skilled birth attendance on maternal mortality: A systematic review. *Maternal Health Journal*.
12. Fawole, O. I., Dada, O. E., & Olusanya, O. (2022). Maternal healthcare knowledge and its impact on pregnancy outcomes in rural Nigeria. *BMC Public Health*, 19(1), 247-255.
13. Geller, S. E., et al. (2020). Financial barriers to maternal health services in low-income countries. *Global Health Action*.

14. Goudar, S. S., et al. (2020). The role of antenatal care in preventing maternal mortality. *Obstetrics & Gynecology*.
15. Kassebaum, N. J., Bertozzi-Villa, A., & Ziegler, J. (2022). Global, regional, and national maternal mortality, 1990-2020: A systematic analysis for the Global Burden of Disease Study 2020. *Lancet*, 396(10247), 1229-1243.
16. Martorell, R., & Zongrone, A. (2021). Maternal nutrition and its impact on maternal and fetal outcomes. *The American Journal of Clinical Nutrition*.
17. Moller, A. B., Wall, S., & Petzold, M. (2023). Maternal mortality in low-resource settings: The role of health systems, healthcare access, and policy. *Global Health Action*, 16(1), 17-25.
18. Nkwankwo, P., et al. (2022). Cultural beliefs and their impact on maternal health in Sub-Saharan Africa. *African Journal of Midwifery*.
19. Okonofua, F., Shittu, O. B., & Adebawale, O. (2023). Maternal health services in Nigeria: Improving the quality of care in rural areas. *International Journal of Health Services*, 53(1), 15-22.
20. Ramakrishnan, U., et al. (2020). Sleep and maternal health: Implications for pregnancy outcomes. *Maternal and Child Health Journal*.
21. Say, L., Chou, D., & Gemmill, A. (2023). Global causes of maternal mortality: A systematic review of the literature. *The Lancet Global Health*, 11(4), e507-e514.
22. Souza, J. P., et al. (2019). Maternal health care and its role in preventing maternal mortality in low-income settings. *Journal of Global Health*.
23. Tessema, F., Ahmed, H. M., & Zerihun, M. (2023). Socioeconomic and healthcare barriers to maternal health in Sub-Saharan Africa: A focus on maternal mortality. *African Journal of Health Sciences*, 31(2), 44-52.
24. UNICEF. (2023). Maternal mortality in Nigeria: A call for action. United Nations Children's Fund. <https://www.unicef.org/nigeria>.
25. WHO. (2023). Maternal mortality: A global overview. World Health Organization. <https://www.who.int>.
26. WHO. (2023). Maternal mortality and morbidity. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/maternal-mortality>.
27. World Health Organization (WHO). (2023). Global health estimates: Leading causes of maternal deaths. Geneva: WHO.