

# Men's Perception of Maternal Mortality in Nigeria

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## ABSTRACT

Innovative and effective options toward reducing maternal mortality rates in African nations must include the active participation of all stakeholders. This study was carried out to assess men's level of knowledge and attitude to preventing maternal deaths. In a cross-sectional, community-based survey complemented with exploratory in-depth interviews, data were collected from men from different socio-economic areas using a two-stage cluster sampling technique. Mean age of the 316 respondents was 39.9 years (range 19–66). Nearly half (47.8%) knew someone who had died at childbirth. They blamed maternal deaths on healthcare workers not being skilled enough, financial barriers, failure to use family planning, emergency, antenatal, and delivery care services. Factors associated with knowledge and attitude to preventing maternal mortality are discussed. Healthcare reforms must be coupled with socio-economic improvements and efforts made to improve men's attitudes and knowledge in such a way as to make them active stakeholders, more supportive of preventing maternal mortality.

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## INTRODUCTION

Maternal mortality in developing countries and economically restrained settings remains a daunting and largely unmet global public health challenge. To improve maternal health and reduce 1990 mortality rates by 75% by 2015 is a key goal among the United Nations (UN) Millennium Development Goals (MDG) (1). Progress, however, has been slow and some countries with high maternal mortality are experiencing stagnation or even reversals (2,3). Countries in

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sub-Saharan Africa are hardest hit by this epidemic. In Nigeria, the problem is particularly challenging. Recent epidemiological data indicate one of the highest maternal death rates, 800 per 100,000 (4,5).

The new millennium requires new thinking about the relationship between health and socio-economic development. In any African nation, creative and effective options for reducing maternal mortality rates must include the active participation of all primary stakeholders, and should include the men who are the primary decision makers in culturally driven, male-dominated societies. Men are expected to promote maternal health and prevent maternal death in their partners, yet research has not established a strong link between their behaviors and maternal mortality particularly in developing countries.

In Nigeria, where culture has been shown to be an important factor in relation to women's access to available reproductive health facilities, little data exist on men's views with regard to maternal deaths (6,7). This study was conducted to assess what men know and to better understand their attitudes toward maternal mortality. This understanding is important for policy-related decision making that will promote men's effective participation in activities that advance maternal health; joining forces to reduce maternal mortality.

#### MATERIALS AND METHODS

Ibadan, the study area, an indigenous west African city and the capital of Oyo State, Nigeria, has a projected population of over four million (8). Politically and administratively, Ibadan municipality is divided in five local government areas (LGA): Ibadan Northwest, Ibadan Northeast, Ibadan North, Ibadan Southwest, and Ibadan Southeast. The city may also be divided into three socio-economic and cultural zones, which cut across the LGAs: a traditional inner core, a transitional, and a suburban periphery (9). The inner core areas form the old part of the city, inhabited, for the most part, by people with a low level of education. These areas are highly congested and overcrowded, have few and poor roads, limited amenities, and many public health problems. The transitional area is an interface between the inner core and elite areas. The suburban periphery is described as the elite area, containing modern

low-density residential estates, occupied by professionals and other high-income groups.

This study was a community-based descriptive and exploratory one, employing both survey and qualitative inquiry. The main focus was on assessing men's knowledge and views about maternal deaths in the country. The study was conducted in August 2006.

Both components of the study were built on the fact that Ibadan itself is stratified into three socio-economic zones. Only three LGAs – Ibadan North, Ibadan Southwest, and Ibadan Northwest – contain the full progression from inner core to suburban periphery. For the study, one of these (Ibadan North LGA) was selected by simple random sampling. The wards within each socio-economic zone were identified, and one ward per zone selected by simple random sampling. Men from each of these areas were enrolled for the in-depth interviews ( $n=10$ ) and for the questionnaire survey ( $n=316$ ). Men of 18 years and above were eligible for the study.

### *Study Instruments*

Two instruments were used for data collection. In-depth interviews were conducted for the qualitative data collection. One of the authors administered a pre-tested, semi-structured interview guide. Respondents' views and experiences were addressed concerning maternal death, its perceived causes, the role of abortion as one cause, and possible ways to reduce maternal deaths.

The survey instrument was a pre-tested, semi-structured questionnaire, which was administered by trained research assistants. Information collected included socio-demographic data (age at last birthday, marital status, if married how many wives, religion, occupation, and presence of children); knowledge of someone who died as a maternal death; men's attitudes toward preventing maternal death; their knowledge of factors contributing to maternal mortality; and suggestions of ways to reduce such deaths.

Participation was voluntary and respondents were asked, as part of obtaining informed consent, if they were willing to have their answers recorded. Confidentiality was maintained; names were not required. Permission to carry out the study was obtained from the Ibadan North Local Government Secretariat.

On the knowledge scale, each of the 10 items received one point for a correct answer. Six items that presented both negative and positive views on preventing maternal mortality comprised the attitude scale as follows:

- A woman would die at childbirth anyway if she is destined to die and there is nothing one can do to prevent it.
- Women who are unfaithful to their husbands are more likely to die at childbirth.
- If a woman dies at childbirth, the man can now marry another woman.
- If women do not have so many children, their chances of dying at childbirth would be reduced.
- Use of family planning would help prevent more deaths in women.
- Delivery of babies in a health facility rather than at home or by the traditional birth attendant (TBA) would prevent more deaths in mothers.

Initially, we used the five-point Likert-type attitude scale, but after pre-testing it was reduced to a three-point spread: agree, neutral, and disagree. The items were scored from 1 to 3 points. For the first three items above, agree was given 1 point, while for the second set of three, agree received 3 points. The resulting scores could range from 3 to 18 points. An attitude score of 13 and above was considered positive.

### *Data Management and Analysis*

Factor analysis was used to determine the underlying constructs that explain significant portions of the variance in the questionnaire items, and to identify the factors to retain. Within a factor, negative loadings indicate that the variable is inversely associated, while positive loadings indicate direct association. Factor loadings of more than 0.30 were considered as significant.

For the multivariate logistic regression analysis, the dependent variables were the attitude and knowledge scores, each as dichotomous variables. These scores were derived from the information on whether or not the respondent reached a cutoff point. Respondents were coded "1" if they had a composite attitudinal score of 13–18 and coded "0" if the scores were less than 13. Similarly, respondents were coded "1" if they obtained a

high knowledge score of 5–10, and “0” for scores less than 5. The variables were analyzed simultaneously to remove the effect of confounders and to identify significant risk factors in the study population.

A *p*-value of 0.05 was accepted as statistically significant for the model. Due to small numbers in the cells, some of the groups were collapsed for the purpose of regression analysis. An odds ratio of greater than one for a particular variable indicates that the study subjects in that category were more likely to have a positive attitude or high knowledge score than were subjects in the reference category. Subjects having an odds ratio of less than one were less likely to have positive attitude or high knowledge scores than were subjects in the reference category. An odds ratio of one or close to one indicates little likelihood of being different from the reference group in terms of positive attitude and high knowledge scores.

Collected data were coded and entered into the computer using *SPSS version 11* and then analyzed. Quantitative data were exported into *SYSTAT version 11* software for factor analysis and logistic regression analysis. An analysis of variance (ANOVA) test was used to analyze the summed responses to the attitude questions. Attitude and knowledge scores were normally distributed among study participants.

Socio-economic class was classified into higher, middle, and lower, and based on a modification of the Registrar General Classification of Occupations and the more recent National Statistics Socio-Economic Classification (or NS-SEC) (10,11). This ranking is dependent on the general standing of the occupations within the community and not on a classification of individuals. The higher status occupational class includes professionals such as lawyers, physicians, and bankers, and top civil servants; the middle class includes the intermediate occupations and skilled occupations; while the lower occupations include partially skilled and unskilled workers. The classification has been used in community-based research (12).

## RESULTS

### *In-depth Interviews*

Face-to-face, in-depth interviews were conducted with 10 men from the three different socio-economic zones of the study area. Their ages ranged between 28 and 56 years.

Men who had experienced maternal mortality either as the death of friends or family members gave a variety of reasons for the problem. Examples of culture-based factors were mentioned by a man who said that, “The death was due to spiritual powers, and could have been averted if the woman had been delivered by a traditional doctor/herbalist.” One respondent blamed the husband for the spiritual causes by saying that, “The husband caused the wife’s death by spiritual means.” Another culture-based response was, “TBAs [traditional birth attendants] are contributing to deaths by providing sub-standard care.”

Social and economic problems related to the family were also described. One man said that, “A woman bled to death at home because the husband was not around and money was not available.” “The Cesarean section was delayed because the husband/family did not make funds available on time.” Another observed that, “She should have been taken to the tertiary hospital, but they [the husband/the family] did not do that because they did not have enough money.”

Another set of problems revolved around the competency of the health system. “The health care worker was not skilled enough,” was a factor expressed by one man. Another simply observed that, “The woman died on the operating table.” An angrier response was that, “The doctors and nurses did not know what to do when the women in labor was referred from the primary care center to the secondary level facility. They [doctors and nurses on duty] did not decide on time what to do.” Finally, a respondent noted that, “Skilled workers were nonchalant and inefficient.”

The cultural concerns go beyond the immediate cause of death. Culture, according to the men, plays a major role in the way women are treated. Some men reported that in many places, where polygamy is practiced, women are treated as “baby factories” and the men “disregard their role in providing proper care and support, both financially and physically.” As a solution to this, the men wanted religious leaders reoriented so that they would be able to better promote a more positive way of living that would help stem maternal deaths. They also added that women are not adequately empowered; the standard of living is poor; and unwanted pregnancies are not prevented among teenage girls. Also, the grassroots level should be made aware of the need to use healthcare facilities. Some also said

that poverty has reduced patronage of orthodox facilities “pushing more women to mission homes; into the hands of traditional birth attendants and promoting home delivery.” The men were of the opinion that something needed to be done about this.

Men saw abortion as a major factor in maternal death, but their views on abortion were divided. Some wanted it banned claiming that “abortion is killing women,” and argued that the legalization of abortion “could lead to an increase in maternal deaths.” Others preferred that abortion should be legalized as it would “remove stigma and shame, and allow women to seek skilled personnel instead of quacks.” The men claimed that unfaithful couples and those who refused to use family planning were more likely to seek abortion, while the unmarried girls would be more likely to seek an abortion because of their promiscuous behavior. They also added that there was a need for government to deal with quacks in the health profession. Men reported that abortions are usually done by unfaithful wives to conceal pregnancies that result from their unfaithful encounters. Women were to blame, according to some, and they had to stop sex work because many end up pregnant and require abortions and die in the process.

Respondents suggested ways to achieve a reduction in maternal deaths. They stressed the importance of antenatal care, and most wanted women to go for care early and to use skilled workers in well-equipped facilities. They further urged that the government assist by providing skilled health professionals, improving healthcare facilities, and promoting the awareness of antenatal care, especially in rural areas, which according to them have been neglected.

### *Survey Findings*

An additional 316 men were enrolled and interviewed for the quantitative analysis. The mean age was 39.9 years (range 19–66 years). Most of the men were married (73.4%), in monogamous relationship (68.0%) with the wife, have children and were in middle (47.5%) or lower (34.5%) status occupations (Table 1). Christians (73.1%) were more likely to be monogamous (OR = 7.34, [2.24–25.4],  $p < 0.0001$ ), and to be in higher status occupations (OR = 2.0, [1.16–3.43],  $p = 0.006$ ).

Table 1: Socio-demographic characteristics of the respondents

<i>Characteristics</i>	<i>Number (%)</i>
<i>Age (years)</i>	
19–29	81 (25.6)
30–39	83 (26.3)
40–49	82 (25.9)
50+	58 (18.4)
Missing	12 (3.8)
Total	316 (100)
<i>Marital status</i>	
Married	232 (73.4)
Single never married	81 (25.6)
Divorced/separated/cohabiting	3 (0.9)
Total	316 (100)
<i>Type of marriage</i>	
Monogamous	215 (68.0)
Polygamous	17 (5.4)
Single	84 (28.6)
Total	316 (100)
<i>Religion</i>	
Christianity	231 (73.1)
Islam	85 (26.9)
Total	316 (100)
<i>Occupation</i>	
Higher	27 (8.5)
Middle	150 (47.5)
Lower	109 (34.5)
Student	30 (9.5)
Total	316 (100)
<i>Have children of their own</i>	
Yes	223 (70.6)
No	93 (29.4)
Total	316 (100)

When the respondents were asked if they knew someone who had died a maternal death – while pregnant, at delivery, or within 42 days of termination of pregnancy from a cause related to or aggravated by the pregnancy – 47.8% answered in the affirmative. When these men were further asked to identify the main cause of death and associated factors, the most commonly reported cause was obstetric hemorrhage (24.5%) followed by prolonged/obstructed labor (22.5%), and lack of access to care (19.2%). Other causes are shown in Figure 1. Only 31% of the men thought the death had been preventable.

### *Attitude Scores*

On an attitudinal scale, the cutoff point for positive attitude was 13. Mean and median attitudinal scores were 11.6 ( $\pm 2.3$ ) and 12 and considered poor. (Maximum attainable was 18.) Only 98 (31.0%) had a score of 13 and above – a positive attitude to preventing maternal deaths.

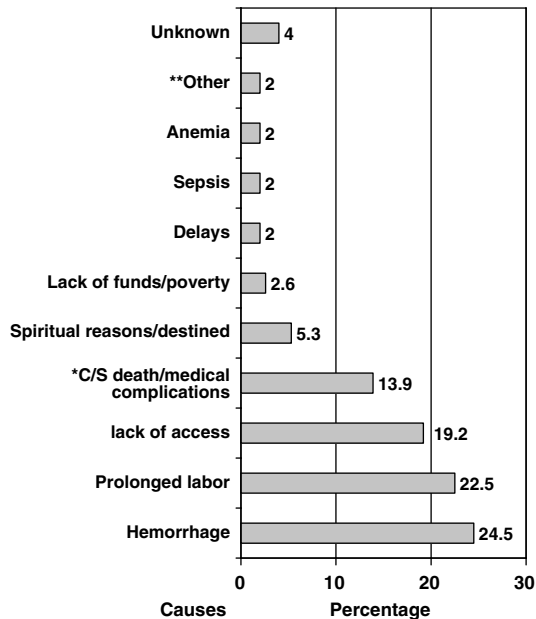


Figure 1  
Reported causes and factors associated with maternal deaths

Mean attitudinal scores varied with socio-demographic characteristics. Married men (polygamous and monogamous) had lower scores than the unmarried ( $F = 12.97, p < 0.00001$ ). When marital status was stratified by the number of wives, men in polygamous unions had significantly lower attitudinal scores than monogamous men ( $F = 18.91, p < 0.0001$ ). Non-Christians had significantly lower scores than Christians ( $F = 24.56, p < 0.000001$ ), and attitudinal scores increased as knowledge increased ( $F = 3.91, p = 0.021$ ). Men in the higher occupations and students had higher scores than those in lower occupations ( $F = 7.57, p < 0.0001$ ), and attitudinal scores declined as one went down the occupational scale. Other factors and median scores are in Table 2.

### *Knowledge Scores*

Mean knowledge score for the 10 questions was 5.6 ( $\pm 2.1$ ). The scores were quite high, with 72% scoring between 5 and 10 points.

Men who wanted abortion legalized had significantly higher mean knowledge scores than those who did not ( $F \text{ stat} = 6.18, p = 0.0134$ ), and those with positive attitude toward preventing maternal deaths had significantly higher knowledge scores than those with poor attitude ( $F \text{ stat} = 4.41, p = 0.036$ ). Other factors investigated are shown in Table 2.

### *Factor and Multivariate Analysis*

Following a single-level Principal Components Analysis, a “scree” plot identified four factors. Loadings for these factors were high on 10 factors. The first group had significant contributions from socio-demographic variables; the second group had major contributions from experience with maternal deaths; the third factor had significant contributions from culture/values; and a fourth factor from knowledge about maternal mortality. These four groups accounted for 67.5% of the total variance; the socio-demographic group accounting for the maximum possible variance in the data set (24.99%). Principal component loadings are shown in Table 3.

Tables 4 and 5 show results of the multivariate logistic regression analysis, presenting predictor variables associated with positive attitude and high knowledge. Men in the higher occupational category were borderline significantly more likely than those in the

Table 2: Median attitudinal and mean knowledge Scores by socio-demographic and other factors

<i>Factors</i>	<i>Median score</i>	<i>Mean knowledge scores (SD)</i>
<i>Age (years)</i>		
19-29	12	5.54 (2.4)
30-39	12	5.68 (1.7)
40-49	12	5.75 (2.03)
50+	11	5.58 (2.09) $p>0.05$
<i>Marital status</i>		
Married monogamous	12	5.54 (1.97)
Married polygamous	9	5.7 (2.14)
Not married*	12	6.012 (2.28) $p>0.05$
<i>Religion</i>		
Christianity	12	5.63 (2.09)
Islam	10	5.68 (2.06) $p>0.05$
<i>Occupation</i>		
Higher	12	5.42 (2.3)
Middle	12	5.50 (1.9)
Lower	11	5.67 (2.1)
Student	13	6.43 (2.46) $p>0.05$
<i>Respondent with children</i>		
Yes	12	5.57 (1.9)
No	12	5.82 (2.3) $p>0.05$
<i>Maternal deaths are preventable</i>		
Yes	12	5.79 (1.83)
No/not sure	12	5.57 (2.2) $p>0.05$
<i>Knows someone who died during childbirth</i>		
Yes	12	5.76 (1.9)
No	12	5.54 (2.2) $p>0.05$
<i>Abortion should be legalized</i>		
Yes	12	6.21 (2.3)
No	12	5.49 (1.9) $F \text{ stat}=6.18, p=0.0134$

Table 2 Continued

<i>Factors</i>	<i>Median score</i>	<i>Mean knowledge scores (SD)</i>
<i>Knowledge score on maternal deaths</i>		
Low (0-4)	11	
Medium (5-7)	12	N/A
High (8-10)	12	
<i>Attitude to maternal deaths</i>		
Positive	N/A	6.01 (2.13)
Negative		5.05 (2.05) <i>F</i> stat=4.4, <i>p</i> =0.036

\* Single (never married), divorced and co-habiting.

Table 3: Principal component loadings

<i>Description</i>	<i>*Components</i>			
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Marital status	<b>0.906</b>	-0.178	-0.027	-0.078
Has children	<b>0.887</b>	-0.173	-0.048	-0.135
Current age (years)	-0.675	0.163	0.198	0.179
Occupation	<b>0.449</b>	0.022	-0.232	0.283
Attitude to maternal mortality	0.187	-0.203	<b>0.723</b>	-0.122
Maternal deaths preventable	0.289	<b>0.900</b>	0.120	0.080
Knows mother who died	0.272	<b>0.905</b>	0.105	0.085
Abortion should be legalized	-0.149	0.169	-0.276	<b>-0.484</b>
Knowledge on maternal mortality	0.136	-0.212	<b>0.316</b>	<b>0.734</b>
Religion	-0.031	-0.023	<b>-0.714</b>	<b>0.383</b>
% of total variance explained	24.99%	18.32%	13.30%	10.86%

\* Bold values: factor loadings of more than 0.30 were considered as significantly contributing to the factor.

lower occupational category to have high knowledge on maternal mortality ( $p = 0.053$ ). Single men had significantly lower knowledge about maternal mortality than men who were married ( $p = 0.043$ ). In contrast, the odds of having a positive attitude toward preventing maternal mortality increased as one went up the occupational scale. Men who did not know someone who had died during childbirth ( $p = 0.04$ ) and those of Islamic religion ( $p = 0.002$ ) were significantly less likely to have a positive attitude to preventing maternal deaths.

Table 4: Predictors of a positive attitude to maternal mortality

<i>Variables</i>	<i>Odds ratio*</i>	<i>95% confidence interval</i>	<i>p-value</i>
<i>Age (years)</i>			
19-29	0.8	0.2-3.5	0.72
30-39	1.7	0.8-3.2	0.146
40-49	1.3	0.8-2.1	0.246
50+	1.0		
<i>Occupation</i>			
Student	1.7	1.3-2.3	<0.0001
Higher	3.2	1.2-8.9	0.024
Middle	1.5	1.05-1.99	0.023
Lower	1.0		
<i>Knowledge about maternal mortality</i>			
Low (0-4)	1.0		
High (5-10)	0.7	0.4-1.2	0.181
<i>Religion</i>			
Christianity	1.0		
Islam	0.3	0.2-0.6	0.002
<i>Marital status</i>			
Married	1.0		
Not Married**	0.5	0.2-1.7	0.277
<i>Abortion should be made legal</i>			
Yes	1.1	0.6-2.0	0.767
No	1.0		
<i>Knows someone who died</i>			
Yes	1.0		
No	0.5	0.2-0.9	0.04
<i>Believes that maternal deaths are preventable</i>			
Yes	1.3	0.6-2.8	0.426
No	1.0		
<i>Has children of his own</i>			
No	2.6	0.9-7.9	0.09
Yes	1.0		

\* Quasi-maximum likelihood adjusted.

\*\* Includes single never married, divorced, and co-habiting.

Table 5: Predictors of high knowledge on maternal mortality

<i>Variables</i>	<i>Odds ratio</i> <sup>§</sup>	<i>95% confidence limit</i>	<i>p-value</i>
<i>Age (years)</i>			
19–29	0.59	0.1–2.2	0.39
30–39	1.1	0.6–2.2	0.729
40–49	1.1	0.7–1.7	0.664
50+	1.0		
<i>Attitude to maternal deaths</i>			
Positive	1.3	0.9–1.7	0.145
Negative	1.0		
<i>Religion</i>			
Christianity	1.3	0.7–2.4	0.379
Islam	1.0		
<i>Abortion should be made legal</i>			
Yes	1.3	0.7–2.5	0.466
No	1.0		
<i>Occupation</i>			
Student	0.9	0.7–1.2	0.510
Higher	0.3	0.1–0.9	0.035
Middle	0.9	0.7–1.2	0.425
Lower	1.0		
<i>Maternal mortality is preventable</i>			
Yes	1.0		
No/not sure	0.8	0.3–1.6	0.50
<i>Has children</i>			
Yes	1.0		
No	0.6	0.2–1.7	0.309
<i>Knows someone who has died at childbirth</i>			
Yes	1.0		
No	0.9	0.4–1.8	0.705
<i>Marital status</i>			
Married	3.4	1.04–10.9	0.042
Not Married*	1.0		

<sup>§</sup>Quasi-maximum likelihood adjusted.

\* Includes the single (never married), divorced, and cohabiting.

*Thoughts on Abortion and Men's Roles in Maternal Death*

When the men were asked about their views on abortion in Nigeria, 159 (50.3%) thought it was not good and should be stopped and completely abolished. Fifty-three (16.8%) wanted women, parents, and teenagers educated on ways to prevent pregnancy and avoid abortions; 33 (10.4%) wanted to see more family planning counseling and promotion of condoms. Only 26 (8.2%) wanted abortion to be legalized, so it would be done professionally. They also wanted abortion clinics to be established. Another 26 (8.2%) took no stand for/against abortion; and 10 (3.2%) advocated abstinence for single men and women. Stratified analysis showed that men of Islamic and Christian affiliations had similar views concerning abortion, and religion was not a modifier ( $\chi^2 = 0.22$ ,  $p > 0.05$ ).

One-fifth of men (20.9%) said that they, men, do not contribute to maternal deaths or did not know how they did. Others added that lack of child spacing by couples, not using any family planning method, husbands encouraging wife to seek abortion (3.2%), and having sex with the pregnant mother (5.7%), contribute to maternal deaths. Inability of men, because of poverty, to provide for the wife (7.6%); women living stressful lives, being overworked, and abused by her spouse (25%); and men preventing their wives from accessing facilities for antenatal care and delivery (37.3%) were additional ways men contributed to maternal deaths in Nigeria.

*Suggestions for Action*

Men's views on what should be done, included government providing effective specialized (obstetric) antenatal care and making it close to the masses (14.9%). Government should help the poor, equip hospitals, train more doctors, and increase the number of clinics and health facilities (5.7%); build community awareness about maternal deaths and the need to get care at facilities (4.7%); provide free care and subsidized treatment (4.1%); and encourage family planning (2.2%). Families should support pregnant women to reduce the stress (1.5%).

Some men were of the opinion that only God can help and one had to resort to prayers (2.8%). Others said that men and women should

avoid casual sex, and women avoid pregnancies at extremes of maternal age. Women should stop self-medication (3.3%). Men should be supportive of their wives. Abortions and home deliveries should stop. Emergency obstetric care should be provided. The standard of living must improve. One (0.3%) man said nothing can be done.

#### DISCUSSION

Developing countries may not meet the UN MDG if innovative and effective new options are not found, tried and evaluated. This study, by seeking the views of men in the community, identified factors that may affect maternal mortality. The study reveals some awareness of maternal mortality among the men interviewed, especially about the complications that lead to maternal mortality, including abortion, poverty, poorly skilled health professionals, and sub-standard care.

The multivariate analysis showed that men's attitudes toward preventing maternal mortality were generally poor, especially among unmarried men, men in polygamous marriages, men without children, non-Christians, and men at the lower end of the socio-economic ladder. These attitudes may eventually put women at risk of dying from childbirth-related complications. We believe it would be interesting to link these socio-demographic characteristics – for example, lower income – with stratified maternal mortality rates in a country.

Although knowledge is high in this study population, a proper understanding of maternal risk is generally lacking as some men still hold on to the notion that maternal death is caused by spiritual powers, and could have been averted if the delivery had been performed by a traditional doctor/herbalist. Some see maternal deaths as a punishment for unfaithfulness on the woman's part, while many men believe that women die because they are destined to and believe that nothing could be done to change this. Fatalistic attitude militates against efforts to reduce maternal deaths at family level. In a study carried out in the Republic of Benin, a neighboring West African country, none of the men interviewed in a reproductive health survey thought that the number of pregnancies a woman had would affect her health. One respondent added that,

“If my wife wakes up in the morning that means that she is well” (13).

One must take cognizance of the African worldview. There is no such thing as an accident in the real sense of the word to the traditional African. What appears to be an accident is, to him, the result of divine anger (14). If the world is so unfriendly, then the most reasonable thing to do is to go to the herbalist or to an expert in traditional matters for protection. The use of traditional medicine is sometimes recommended by close relatives and husbands. Furthermore, people still hold traditional beliefs about pregnancy and childbirth. These make them purposely delay seeking medical care for complications. Traditional medicine is usually sought for complications like bleeding, retained placenta, and obstructed labor. Only when these complications are serious is the woman taken to the hospital (14). Women are sometimes prevented from accessing health services in a timely manner, leading to deaths of unregistered women, that constitute a large proportion of hospital maternal deaths in Nigeria (15-17). Maternal mortality is a human rights issue. Culturally, women are still generally undervalued and this confirms earlier findings (6). A general improvement in the socio-economic milieu and education of women will help improve the standard of living and further promote women's rights.

Fear of spiritual attack by the wicked people has been shown to promote the use of religious mission homes and the services of TBAs and herbalists (unskilled workers) for antenatal care and delivery. Many informal practitioners actually combine traditional and orthodox care to get the different forms of assurance that each offers (15,16). According to the respondents, the more important reasons for using unskilled workers were the high cost and lack of access to health facility care.

The high cost of orthodox facilities has been shown to affect in-facility delivery (18,19). There is also the need for policies to address the health inequalities. Women from lower socio-economic classes are excluded from healthcare facilities because of inadequate funds. This issue has been well highlighted by WHO (20).

In most African countries, lack of a skilled health workforce remains a public health problem. Shortage of competent human resources exacerbates maternal mortality rates in any setting. Most

men in this study complained about sub-standard care and perceived this to be a problem, due perhaps to shortage of equipment rather than incompetent professionals. Health workers must be trained and provided the wherewithal to practice optimally.

Abortion is illegal in Nigeria. At least one study suggests that it is carried out more often than expected and is associated with maternal deaths (21). We found mixed views on abortion. Most men did not want abortion liberalized, as they thought it would increase the number of deaths. In another study carried out among university undergraduates in Nigeria, participants held a contrary view as only one-fifth of these respondents opposed liberalization of abortion laws (22). This difference in findings can be explained by the fact that in our study, most men were married, very few being students. In the cited study (22), most of the respondents were students and were unmarried. Another study found that over half of fatal abortions were carried out by medical personnel (23). The abortion issue continues to generate controversies, while abortion persistently claims the lives of women. Given that skilled workers are inadequate, preventing unwanted pregnancies would be a priority and probably a more viable option at this stage. In addition, care for post-abortion complications is needed. Family planning education must be more widely available and women be empowered to use reproductive health facilities. In Nigeria today, use of family planning is less expensive and safer than having an abortion for an unplanned and unwanted pregnancy. This information must be widely publicized.

As men with more knowledge had more favorable attitudes about preventing maternal deaths, public awareness of maternal mortality must be widespread and sustained so that myths are dispelled. This is most important in traditional communities who are more likely to be poor, in lower occupations, and to experience maternal deaths. Use of religious leaders, as suggested by the men would help promote awareness especially among men.

Facilities must be improved and workers trained in emergency care or the benefits of facility delivery will not be appreciated. Studies carried out in several African countries where facility delivery is quite high show that maternal mortality remains high also, informing that facility delivery alone is not enough to significantly reduce maternal deaths (24,25).

While one cannot be sure that men will act on their knowledge and attitudes, improving them is an important step toward involving men as active stakeholders in the fight against maternal mortality in Nigeria.

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