Health-Seeking Behaviour and Socio-Demographic Determinants of Maternal Health Service Utilisation in Developing Countries

Awosusi, Ajoke Olukemi
Department of Human Kinetics and Health Education, Faculty of Education
Ekiti State University, Ado-Ekiti

Abstract.
The cost of death of a woman to the family and community is inestimable. Extant studies suggest that positive health seeking behaviour and utilisation of maternal health service could reduce maternal morbidity and mortality rate considerably. This paper reviewed the health seeking behaviour and the socio-demographic determinants of maternal health services utilisation in developing countries. The study was based on Anderson behavioural health care utilisation model which postulated that maternal health service utilisation is dependent on the interaction between the individual traits, population characteristics and environmental factors. Utilisation of maternal health services has been studied in a wider range of viewpoints and studies have revealed that health seeking behaviour of women of reproductive age has a significant influence on health service utilisation. In addition, women's autonomy, age, level of education and availability of health services were found to have significant influence on health service utilisation. Based on the review, it was suggested that, at community level, health educators should create awareness on the importance of maternal health service utilisation as well as the services available in the health facilities. Government should formulate policy that would allow women of reproductive age to take decisive actions on matters relating to their health.

Keywords: Maternal health, health seeking behaviour, societal determinants, service utilization

Introduction

The health of a woman during pregnancy and delivery is a vital issue which has made maternal health to have become a matter of global concern. It is a known fact that the lives of millions of women of reproductive age can be saved through appropriate maternal health care services (Dereje, Azale, Gelaw and Melsew, 2017). The review of extant literature, however, shows that Nigeria is a leading contributor to the maternal death figure in sub-Saharan Africa. The report is not based on the hugeness of the population but on the recorded high maternal mortality ratio of 1:100 which is higher than the regional average **(**Babalola and Fatusi, 2009). Record on maternal death has it as 12% deaths among women of reproductive age with 830 women dying daily from pregnancy related complications out of which 99% are from developing countries (WHO, 2016). Nigeria which is approximately two percent of the world's population, has an estimate of 59,000 maternal deaths annually contributing almost 10% of the world's maternal deaths **(**Babalola and Fatusi, 2009**).** The high rate of maternal morbidity and mortality have been attributed to poor

utilisation of maternal health services (Idris, Sambo and Ibrahim, 2013).

Maternal health refers to the health of women during pregnancy, childbirth and at the postpartum period. The importance of maternal health necessitated a component of the Millennium Development Goal (MDG) that was aimed at reducing maternal mortality ratio by three-quarters between 1990 and 2015. The discovery that over 303,000 women died either during pregnancy or following childbirth in 2015 with almost all the preventable deaths occurring in low-resource settings (Alkema, Chou, Hogan, Zhang, Moller and Gemmill, 2016) was an indication that the goal was not achieved. Despite the MDG, studies show that Nigeria continues to have one of the highest maternal mortality ratios (496–560 deaths per 100,000 live births) resulting majorly from the consequences of serious obstetric complications (Akeju et al, 2016).

Health Seeking Behaviour of Women of Reproductive Age

Health seeking behaviour determines the use of health facility (Musoke, Boynton, Butler and Musoke, 2014).Women of reproductive age have been reported to be at risk of morbidity and mortality due to poor health seeking practices (Ibekwe, 2010). A recent study conducted in a rural settlement in Nigeria reported increased maternal morbidity and mortality brought about by poor health-seeking behaviour (Etukudo and Inyang, 2014). Health seeking is part of a wider concept of health behaviour which includes those behaviour associated with establishing and retaining a healthy state and the aspects of dealing with any departure from healthy state. The demonstrated behaviour entails all the things humans do to prevent diseases or detect diseases in their asymptomatic stages (Egbuniwe, Egboka and Nwankwo, 2016).

The fact that health seeking behaviour is largely concerned with the process of decision making to seek medical care at a given time and place could substantiate the assertion that health seeking behaviour is a key determinant of health care utilisation (Musoke, Boynton, Butler and Musoke, 2014). In addition, a variety of socio-economic variables such as sex, age, social status of women, type of illness, access to services and perceived quality of the service could influence one's decision to adopt a particular lifestyle in ensuring a healthy state (Tipping and Segall, 1995). For instance, a study on health seeking behaviour amongst pregnant women attending antenatal clinic in primary health care centers in rural communities of Nnewi North L.G.A Anambra State documented factors influencing health seeking behaviour to include cultural, social, physical factors and geographical barrier (Egbuniwe et al, 2016).

Maternal Health Care Services

Health care services during pregnancy and after delivery have been described as important tools in promoting maternal health and avoiding morbidity or mortality associated with pregnancy and childbirth. Maternal health care services are antenatal care, delivery care and postnatal care services (Dereje et al, 2017). There are commonalities and differences in the predictors of the three indicators of maternal health service utilization (Babalola and Fatusi, 2009). Findings show that women utilized multiple care givers during pregnancy, with a preference for traditional providers because they have strong sense of trust in traditional medicine, particularly that provided by traditional birth attendants who are long-term

residents in the community (Akeju et al, 2016).

Antenatal Care

The poor maternal health outcome in Nigeria could be linked with poor antenatal care utilization (*Ajayi and Osakinle, 2013)*. Antenatal care is the care a pregnant woman receives during the pregnancy through a series of consultations with trained health care workers such as midwives, nurses, and sometimes a doctor who specializes in pregnancy and birth (Fagbamigbe and Idemudia, 2015). The trained skilled providers screen for infections, treats malaria, reduces the incidence of perinatal illness and death, provides birth preparedness, identifies signs of danger in pregnancy and plans to handle possible delivery complications through timely treatment and referrals (*Osungbade, Shaahu and Uchendu, 2011)*. Adequate antenatal care would thus reduce medical problems in pregnancy such as anaemia, hypertension, ectopic pregnancy, obstructed labour, eclampsia, excessive bleeding and premature labour and delivery. Maternal age, education, parity and wealth were associated with timing and the number of antenatal-care visits (Neupane and Doku, 2012).

Plethora of evidence reported the poor utilization of antenatal care by pregnant women. Studies conducted on utilization of health services by pregnant women revealed that the proportion of pregnant women who had not attended any antenatal care services in Nigeria was between 33.9% and 34.9% (Fagbamigbe and Idemudia, 2015). In a follow up study conducted on 81 women that delivered within a 1-year period revealed that only 9.9% received antenatal care and 6.2% received two doses of tetanus toxoid (Osubor, Fatusi and Chiwuzie, 2006). In the contrary, NDHS (2013) reported that 60.9% among women of child bearing age (15–49 years) who had a live birth in the five years preceding the survey received Antenatal Care from trained skilled birth attendants. One tends to have reservation about the generalization of the result of the study because it was conducted among those that had live birth while those with stillbirth or miscarriages were excluded. The reason for the problems which affected the latter category of women could also be traceable to poor antenatal care utilisation. Similarly, Babalola and Fatusi (2009) reported that three-fifths (60.3%) of the mothers used antenatal services at least once during their most recent pregnancy. Idris et al (2013) in a study conducted on utilisation of maternal health services in a semi-urban community in northern Nigeria discovered a higher patronage of almost 100% maternal health service utilization. Though, the finding according to the scholars was unclear but the unexplainable high utilisation of health services was linked with the provision of free maternal health service in the area

Skilled Birth Attendance

Maternal morbidity and mortality could be prevented if deliveries occur in the presence of a skilled health provider who functions with appropriate equipment, drugs, supplies, transport and the provision of life-saving interventions for the major obstetric complications including skilled birth attendants. Skilled birth attendants are accredited health professionals (such as midwives, doctors, or nurses) who have been educated and trained to proficiently manage uncomplicated pregnancies, childbirths and the immediate postnatal period, as well as handle the identification, management and referral of complicated cases. The presence of skilled birth attendants at all births is regarded as, probably, the

single most critical intervention for reducing pregnancy-related deaths and disabilities. For instance, Yanagisawa, Oum and Wakai (2006) remarked that delivery managed by skilled birth attendants has been associated with lower maternal and newborn mortality and morbidity rates. Despite the importance of the services rendered by skilled birth attendants, Ejembi et al (2004) discovered that only 38 percent of all the deliveries at the time of study was managed by skilled birth attendants while Ochako, Fotsa, Ikamari and Khasakhala (2011) discovered that only 50 percent of pregnant women received skilled birth attendants' services during delivery

Despite the availability of skilled attendants, women often prefer traditional birth attendants (TBAs) to assist them during deliveries (Yanagisawa et al, 2006). Women's preference for skilled birth attendance could be determined by the level of education or perception of specific obstetric needs. Maternal age, education, parity, wealth and sufficiency of advice were associated with skilled attendance at birth (Neupane and Doku, 2006). Encouraging women to complete primary school education before marriage may enhance accessing antenatal care services though, Ochako et al (2011) opined that women with primary education were less likely to receive antenatal health care services in the first trimester than those with secondary school education. This denotes that the more education level a woman attain the higher the probability of her utilising maternal health services.

Community beliefs about the importance of delivery in a health facility, knowledge of the benefits of having deliveries assisted by skilled health attendants, and place of last birth have been found to be associated with delivery in a health facility (Hazemba and Siziya, 2008). However, women in communities with a high proportion of women from different ethnic groups had a lower likelihood of delivering their baby in a health facility (Ononokpono and Odimegwu, 2014). For instance, a study conducted among rural women in Zaria showed that utilization of orthodox maternal health services among the rural Hausa women was abysmally low as Primary Health Care implementation has not made any appreciable impact on their maternal health services uptake *(Ejembi, et al., 2004). D*espite the health education programme mounted by the government, *preference for home delivery at rural community setting is still common*. The high prevalence of deliveries at home found by Etukudo and Inyang (2014)in a study is an indicator of poor or low use of modern health services in the kingdom,

The comparison between skilled and unskilled birth attendance patronage shows that unskilled birth attendance care was more utilized by women than skilled birth care. For instance, the study of Osubor, Fatusi and Chiwuzie (2006) reported that private midwives and traditional birth attendants attended 49.4 percent of deliveries while 43.5% had skilled attendants at delivery. In similar study, private maternity center was the most preferred place for childbirth (37.3%), followed by traditional birth attendants (TBAs) (25.5percent). However, the report of Though, the report of Yanagisawa et al (2006) which found that more women sought help from skilled birth attendants who had assisted them with a previous delivery than from unskilled birth attendants negates the findings of other studies.

Post natal care

Postnatal care is regarded as one of the most important maternal healthcare services which is crucial for monitoring and treating complications in the first six weeks after delivery. Health experience during post natal period could be devastating if not well managed. Many women experience fluctuating emotions, arising from physical stress of labour, dehydration and blood loss while some mothers may have anxiety, sleep disorders or post-partum depression (Donatelle, 2013). Postnatal care primarily comprised of physical examination, immunization, health education and family planning services (United Nations, 2002). Extant study revealed that only 41.2% of mothers received postnatal care (Osubor, Fatusi and Chiwuzie, 2006). Education, approval of family planning and family size by the husband, economic status were discovered to be the significant predictor of utilizing post natal health services (Babalola and Fatusi, 2009)

Maternal Health S**ervice Utilization**

Utilization of maternal health services is associated with improved maternal and neonatal health outcomes (Babalola and Fatusi, 2009). Majority of the recorded maternal deaths could have been prevented or reduced if the women had access to, or visited maternal health services during pregnancy, childbirth and the first month after delivery (Federal Ministry of Health, 2005). It is pertinent to note that despite the existence of National programs for improving maternal and child health in Nigeria, maternal mortality and morbidity seem to be on the increase. Regular medical checkup during pregnancy is important to reduce the risk of illness and death of the mother during pregnancy and delivery and child after delivery (Etukudo and Inyang, 2014). Despite the fact that maternal health-care services utilization is essential for improvement of maternal health, little is known about the current magnitude and patterns of use and factors influencing the use of these services (Addai, 2000).

In Africa, one explanation for poor health outcomes among women is the non-use of modern health care services by a sizable number of women of child bearing age. Like in other developing countries, this high maternal mortality rate in Nigeria has been mainly attributed to low use of maternal health services (Idris, Sambo and Ibrahim, 2013). Studies have documented the gross underutilization of the available health services in the health care centres. Onasoga, Osaji, Alade and Egbuniwe (2014) reported that the available maternal health care services were underutilized particularly among those who were in the greatest need while Ejembi et al (2004) recorded only one third (36 percent) of births were delivered in a health facility. In a similar study conducted among Hausa women in Zaria, Ejembi et al (2004) concluded that utilization of orthodox maternal health services among the rural Hausa women was abysmally low and Primary health care implementation has not made any appreciable impact on the maternal health services uptake by the women in the environment.

Socio-Demographic Factors Determining Health Care Services

Health seeking behaviour, personal and societal characteristics have been identified as determinants of health service utilization (Chakraborty, Islam, Chowdhury and Bari, 2002; Babalola and Fatusi, 2009), though, the decision to seek maternal health care may not solely depend on health seeking behaviour of the woman

as other prevailing situations could influence a woman's choice of health care.

Extant literature documented that societal conditions such as autonomy as dictated by culture, cost of services and the location of health facilities have been discovered to influence maternal health service utilization. Some other factors such as poor socio-economic status, lack of health facility, cultural beliefs and perceptions, low literacy level of the mothers and large family size have been observed to cause poor utilization of primary health care services. Kroeger (1983) described these determinants of utilization of health services to include resources, availability and organisation of health facilities. Review of the global literature suggests that these factors can be classified as cultural beliefs, socio-demographic status, women's autonomy, economic conditions, availability, disease pattern and health service issues (Shaikh and Hatcher, 2004).

Cultural Background of Women

In Africa, the cultural background of a woman has been considered to be an important factor in the utilization of maternity care services. The cultural perspective on the use of maternal health services suggests that medical need is determined not only by the presence of physical disease but also by cultural perception of illness (Addai, 2000).On the other hand, older women's previous experience or belonging to traditional cohorts may hinder utilisation of health services (Navaneetham and Dharmalingam, 2002)

Women Autonomy

Culture-imposed gender based inequalities seems to have reduced women's decision making power while husbands or other members of the family are saddled with maternal health care decision making. Ochako, et al (2011) submitted that women are disadvantaged in terms of decision making as some women have to consult their husbands and mothers in-law before seeking maternal health care services. The report of UNFPA (2008) that women have to wait for their husbands' decision on health care utilization for themselves and their children when the need arises corroborated the submission. Women's autonomy can be defined as the capacity and freedom to act independently in decision making on issues that affect their health without consulting or getting permission from another person. It empowers women to have control over their own lives, being able to make decisions and act upon them and to manipulate their personal environment (Ghuman, Lee and Smith, 2006). Women autonomy has been argued to include participation in decision making, financial decision making, freedom of movement, and attitudes toward violence, among others. Several studies in developing countries have documented that women's autonomy affects their reproductive health seeking behaviour (Upadhyay and Hindin 2005; Woldemicael, 2007). It is believed that women autonomy could also determine the decision to make use of appropriate and safer maternal health services.

Maternal Age

The age of a woman could be a strong determinant of maternal health service utilization. Different studies have presented maternal age as being a proxy for accumulated experience on the use of health services. Women's age at birth of their first child may increase utilization of antenatal and delivery services(Pandey, Lama and

Lee, 2012).The Older women's confidence and boldness to make household decision by older women would influence utilisation of health services (Gabrysch and Campbell, 2009). A reduction in the use of maternal health services was discovered among young women (Ochako et al, 2017). This could be linked with the findings of Banke-Thomas, Banke-Thomas and Ameh, (2017) where adolescent mothers are faced with the challenges of physical and social threats to their health due to inability to complete their education resulting into inability to secure a good job needed to sustain livelihood as well as raise their babies. On the other hand, majority of older women were found to utilize maternal health services probably due to their level of confidence and having better household decision making power than younger women (Reynolds, Wong and Tucker, 2006)

Educational Background of Women

In bringing new life to the world, pregnancy and child bearing with the associated complications could endanger the life of a woman. Lack of awareness about the dangers associated with pregnancy and childbirth may hinder the utilization or the choice of maternal health care services to employ by women. Adequate knowledge of maternal health is a prerequisite to maternal health service utilization as higher education is strongly correlated with improved maternal health knowledge (Yar'zever and Said, 2013).

Studies have associated education with maternal health service utilization and same has been found to be a significant variable for utilization of health-care services (Addai, 2000). For instance, Ononokpono and Odimegwu (2014) reported that knowledge of the benefits of having deliveries assisted by skilled health attendants and place of last birth have been found to be associated with delivery in a health facility. Similarly, Odetola (2015) established a significant relationship between level of education and child bearing woman's choice of health care service. This could be linked to the fact that women's social status, self image and decision making powers may all be increased through education, which may be a key determinant for utilising maternal health services.

In addition, educated women may have more understanding of the physiology of reproduction and be less disposed to accept the complications and risks of pregnancy as inevitable, than illiterate or uneducated woman (Yar'zever and Said, 2013).Plethora of evidence shows the predictive ability of education to utilization of maternal health services. For instance, Etukudo and Inyang (2014) discovered that education is the only individual-level variable that is consistently a significant predictor of service utilization. The reason could be that women in higher socioeconomic groups tend to exhibit patterns of more frequent use of maternal health services than women in the lower socioeconomic groups (Addai, 2000). The importance of mother's education and age as strong determining factors of the choice of maternal healthcare service as reviewed in this study deserves further comment having known that education is an antidote to ignorance.

Socio-Economic Status of Women

The cost of health services and the socio-economic status of a woman could determine the utilization of health services. Related studies showed that socio-economic level is a consistent significant predictor of utilization of healthcare services (Addai, 2000; Etukudo and Inyang,

2014). Utilization of health facilities can be influenced by the cost of services, distance to health facilities (Musoke et al, 2014) including transportation fare (Gabrysch and Campbell, 2009).

The fact that income has a positive relationship with utilization of health services implies that women from well off households would demand more maternal health services than those from poor households because they could afford the charges. Reason being that, if the cost of health services is unaffordable the likelihood of looking for alternative health care could be high. Income being found to be a significant variable for utilization of health-care service (Addai, 2000) is consistent in the findings of Gabrysch and Campbell (2009) where women from poor families or those with limited financial resources may have difficulty paying service cost which may likely deter the use of maternal health service and that of Chomat, Solomons, Montenegro, Crowley and Bermudez (2014) that found obstetric complications were common in women having economic challenges despite the functioning maternal health services clearly show that economic power would determine utilisation of maternal heal care services. On the contrary, cost of care was not prominent among the reasons mentioned by mothers for their non-use of maternal health service because maternal health care service was free (Idris et al, 2013).

Availability of Health Care Services

Availability of health services has been shown to be an important determinant of utilization of health services in developing countries. Adequate health facilities with appropriate stock of health workers, with the competencies and skill-mix to match the health needs of the population may determine the utilization of health services. Availability of health services represents the number of healthcare organizations available within 15 minutes' travelling time from the centre of a municipality where the primary care organizations used by patients were located (Lamarche, Pineault, Gauthier, Hamel and Harggerty, 2011). While, many countries are questioning whether their health systems are able to satisfy the public's needs and expectations, many communities in rural areas in Nigeria are faced with gross deficiency in the distribution of health facilities while many do not have good access to facilities staffed with qualified personnel **(**Ibekwe, 2010**).**

The scarcity of vehicles, especially in remote areas and poor road conditions can make it extremely difficult for women to reach even relatively nearby facilities (Onasoga et al, 2014) making walking to be the primary mode of transportation, even for women in labour (Lambo, 2003). In some situations, closeness of health facilities may not decipher utilisation. For instance, lack of awareness of the available services in health facilities or unpleasant past experience from health workers or affordability could discourage women from utilising maternal health services. majority of the mothers were not utilising maternal health services. Among the reasons for non-utilisation negative experience from past health facility attendance such as health providers' attitude, husband refusal and high cost among others. Refusal to utilize orthodox maternal health services could be blamed on lack or inadequate services from the few available health facilities.

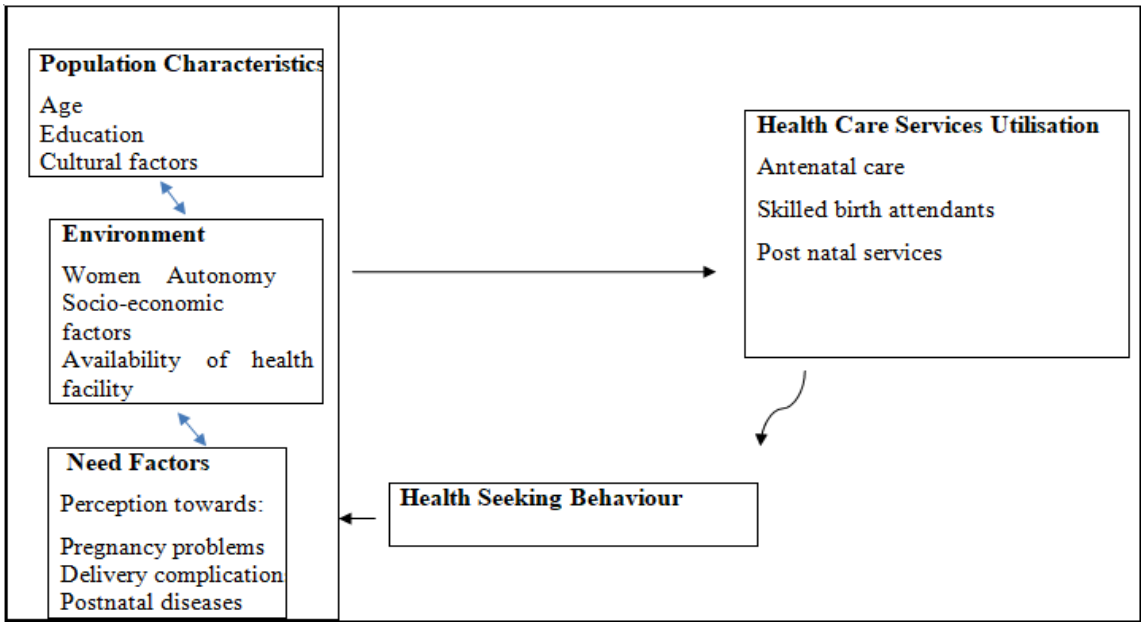
Conceptual Framework

An analytical framework developed based on Andersen's behavioural model (Andersen, 1995),

which demonstrates the relationships between factors related to the utilisation of maternal health services. The model consists of four domains namely environment, population characteristics, health behaviour and outcome (Yanagisawa et al, 2006). The behavioural model seeks to account for and predict the use of maternal health services and as well demonstrate the factors that lead to the use of maternal health services.

Maternal health service utilization is dependent on the interaction between individual traits, population characteristics, and the surrounding environment. Andersen proposes that Utilization of health care services is determined by three dynamics namely predisposing factors, enabling factors, and need. Predisposing characteristics are socio-cultural characteristics of individuals that existed prior pregnancy. These include demographic elements and social structure such as age, education, culture and attitudes toward health. Enabling elements are the logistical aspects of obtaining care such as community factors that affect the availability health care, and personal factors such as women autonomy.

In the context of the present study, need factors such as functional or health problems that cause the need for health care services are the immediate cause of health service utilisation. Perceived needs will help to understand health care-seeking and adherence to a medical regimen while evaluated need will be more closely related to the kind and amount of treatment that will be provided after a patient has presented to a medical care provider (Andersen, 1995). It refers to women perceived need of maternal health care for pregnancy related problems, delivery and post natal care. The feedback loop illustrates that utilization of health services can also influence health seeking behaviour. For instance, the attitude of health care providers towards women when they utilize health services may hinder subsequent use. It has been shown that the elderly in Nigeria are frequently mistreated by health care providers when they seek care (Ahmed, Tomson, Petzoid and Kabir, 2005). Poor staffing of health facilities which makes it difficult to guarantee 24-hour availability of services has been reported as a factor that discourages women in Nigeria even after receiving ante natal care services to seek other care when labour commences (Babalola and Fatusi, 2009).



Anderson's Health Care Utilization Model (1995)

Conclusion

Poor health-seeking behaviour and health service utilisation were adjudged to contribute to the increasing maternal morbidity and mortality. Maternal health care such as antenatal care, skilled birth attendance and post natal care are the services available for women in the health facilities. A review of health seeking behaviour and socio-demographic determinants of maternal health services utilisation in Nigeria was done in the study using Anderson's health service utilisation model which postulates that maternal health service utilisation is dependent on the interaction between individual traits, population characteristics and the surrounding environment. A substantial number of the literature reviewed revealed that maternal health services utilisation was poor among women of reproductive age in Nigeria. In addition, records on determinants of health services utilisation were discovered to include health seeking behaviour of women and social factors such as the educational factors while cultural background and autonomy of women are recorded to have a significant influence on health service utilisation. Other factors reviewed include educational status, economic factors and age of women as well as availability of health centres. Based on the review, it was recommended that health educators should organize sensitization or awareness programme for women in the community to intimate them on the importance of utilising health services in the health facilities. Government should formulate policy that would allow women of reproductive age to take decisive decisions on matters relating to their health as well as ensure equitable distribution of health facilities and services.

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