

Role of Traditional Birth Attendants in Maternal Health: Trends of Antenatal Consultations in Traditional Authority Nkanda, Mulanje District (Southern Malawi)

Cecilia Maliwichi Nyirenda¹ and Lucy Lynn Maliwichi^{2*}

¹*College of Medicine, Research Support Centre, P/Bag 360, Chichiri, Blantyre 3, Malawi*

²*Department of Consumer Science, University of Venda, P/B.X5050,
Thohoyandou, 0950, South Africa*

**E-mail: <nyirendacec@gmail.com>*

KEYWORDS Midwifery. Reproductive Health. Pregnancy. Home Delivery. Health Delivery System

ABSTRACT Malawi's maternal mortality rate is high at 620 for every 100,000 live births. The involvement of Traditional Birth Attendants (TBAs) in child delivery is regarded as one contributing factor. The country has seen policy shifts pertaining to involvement of TBAs. However, no comprehensive studies have been done to make evidence-based policies. This study aimed at examining the extent to which pregnant women consulted TBAs in different policy environments. Records kept by a trained TBA from 1998 to 2001 were analyzed. One-on-one interviews with the TBA, pregnant women and their guardians were conducted. Two hundred and seventy-seven pregnant women made antenatal visits to the TBA during the 4-year period. On average, the TBA attended to 519 pregnant women annually. Interviews revealed that women consult TBAs because of their kindness and respect compared to the abusive treatment experienced in hospitals. Issues raised in this paper need to be considered when formulating maternal health-related policies.

INTRODUCTION

According to World Health Organization's (WHO) Global Health Observatory (GHO) data, about 800 women died in 2013 due to pregnancy and childbirth-related complications and most of these deaths occurred in developing countries (www.who.int). WHO states that the risk of women dying in resource-limited countries is 23 times more than in developed countries. While pregnancy is not life threatening in developed countries, the probability of a woman dying in Malawi is one in thirty-six (UNFPA 2015). Despite being a peaceful country, Malawi's maternal mortality rate is worse than the rate experienced by Angola, a war-torn country (Santorri 2010). Malawi's maternal mortality is 620 per 100,000 live births while Angola's is 450 (Central Intelligence Agency 2013; National Statistical Office 2011). Although Malawi's maternal mortality rate has been going down over the years, it still remains unacceptably high.

In view of the high maternal mortality rates, the Malawi government has invested in providing hospitals for utilization by pregnant women (and the general public). However, only 71.5 percent of women deliver in hospitals while the remaining 28.5 percent deliver at home (National Statistical Office 2011). Home deliveries are mostly done by Traditional Birth Attendants (TBAs), who are maternity service providers at the community level. TBAs are women who have skills of assisting mothers in delivering babies. These women acquire the skills through apprenticeship or by providing child delivery assistance to women (Smith 2008). TBAs have been in existence ever since the first human baby was born (Kamal 1998).

Low utilization of skilled birth attendants is due to socio-economic status, patterns of decision-making power at household level, availability of facility, staff attitudes, lack of privacy, short labor duration, cultural traditions and reproductive behavior (Mikey 2006). Low utilization of skilled birth attendants is not only specific to Malawi. In Ethiopia, less than one-fifth of mothers are assisted by skilled birth attendants (Alemayesu and Mekonnen 2015).

HIV/AIDS, malaria, tuberculosis and poor maternal conditions are the leading causes of maternal mortality in developing countries and

Address for correspondence:

Lucy Lynn Maliwichi
Professor
Department of Consumer Science,
University of Venda, P/B.X5050,
Thohoyandou, 0950, South Africa
E-mail: Maliwichi@univen.ac.za

poverty is one of the underlying factors (Lanre-Abass 2008; World Health Organization 2005). The most common causes of maternal mortality are linked to poverty (Matthews 2002). Causes of maternal mortality in Malawi include anemia, HIV, heart disease, using TBA services, a lack of obstetric life-saving skills, delayed access to transport, delayed prompt quality emergency obstetric care, a lack of blood for transfusion and delayed care while at the hospital (Kongnyuy et al. 2009).

The United Nations' millennium development goal number 5 aimed at reducing the maternal mortality rate by three quarters by 2015 through antenatal risk screening, training of TBAs and increasing skilled medical attendance during delivery (Matthews 2002; The Health Foundation Consortium 2007). However, the average annual decline was less than half (2.3%) of what was needed to achieve MDG 5's target (5.5%) (Anyangu-Amu 2010). Therefore, it is evident that MDG 5 could not have been achieved by 2015.

The Malawi government established the Safe Motherhood Program in order to reduce maternal and child mortality. However, the program is not effective because government hospitals (which are used by most of the rural and peri-urban population) lack drugs, medical staff and laboratory equipment (Malawi Government 1993). Private hospitals have sufficient resources but the charges are exorbitant. With 50.7 percent of Malawi's population being poor and twenty-five percent living in ultra-poverty, the majority of the women cannot access private hospitals (National Statistics Office 2012). Rudeness of government hospital staff compels women to shun hospitals (Maliwichi-Nyirenda and Maliwichi 2009).

A Traditional Birth Attendant is defined as a person who assists in child delivery through knowledge acquired by herself or learning from fellow TBAs (Verderese and Turbnull 1975). Although the researchers define TBAs as such, TBAs also acquire knowledge through inheritance from mothers. Just like the situation worldwide, TBAs have been providing maternity related services in sub-Saharan Africa for millennia (Kironde et al. 2003). The TBAs normally operate from within their household, combining their TBA roles with household chores. Due to cultural and social roles that TBAs play, they

are regarded to be important within local communities (Kruske 2004).

In Malawi, TBAs (together with traditional healers) play an important role in the healthcare delivery system due to their participation in primary healthcare. Although the government invested in health by ensuring that eighty percent of Malawi's population lives within an 8 km radius of a primary healthcare facility, a majority of the people consult TBAs and traditional healers (Simmit 1994; Malawi Government 1993). This situation is not uncommon. As indicated by WHO, over eighty percent of Africans people in developing countries rely on the traditional healthcare delivery system (World Health Organization and European Union 2008).

Due to the importance of TBAs in healthcare, the government of Malawi instituted training programs for TBAs in as early as 1978. The aim of the training program was to train TBAs for referring complications to the hospital and for conducting normal deliveries. The program started on a pilot basis but was scaled up by 1987 and it evolved from two-week long courses to four-week long courses. The courses comprised discussions, observations, role play, practice, demonstrations, evaluation exercises, health center tours, field trips, and social activities focusing on health issues like personal hygiene and sanitation (Simmit 1994).

To facilitate home-based child delivery, all trained TBAs received delivery kits comprising items useful during child delivery such as a Mackintosh, basins, cotton wool, eye ointment, razor blades and a plastic apron. These were replenished whenever the government had sufficient funds. Seeing that maternal mortality rates were still high, the government decided to ban TBAs from practicing in 2007 under the pretext that they were using traditional medicine, which was contributing to the high maternal mortality. After the ban was implemented, every pregnant woman was expected to deliver at a modern hospital. In October 2010, the government decided to lift the ban. In 2012, the government reversed the decision and it currently intends to assign TBAs another role.

Although there have been policy shifts in the past few years, no comprehensive studies have been done to investigate the extent to which pregnant women consult TBAs, why they consult them and the contribution of TBAs to

maternal health. Unless these investigations are made, evidence-based policies will not be made. This paper focuses on a study that was done at a TBA facility. The paper provides an insight into resources available at the TBA facility, the characteristics of women that make antenatal visits and trends in the visits. It also provides an analysis of the factors that compel women to consult TBAs.

It is hoped that as Malawi is deciding on the new roles to be assigned to TBAs, information contained in this paper will help inform the process.

METHODOLOGY

During the time the Ministry of Health and Population (MOHP) was training TBAs, it ensured that every trained TBA documented her services. The documented information comprised particulars of the women they attended to (for example, where the women were coming from, denomination/religion, number of children the women already have) and outcome of delivery.

Target Population and Sampling

One of the most active and trained TBA was purposively selected in Traditional Authority Nkanda, Mulanje district (Southern Malawi). She was selected because she was the only TBA who had a purposively built facility where she conducted antenatal checkups and child deliveries. Mulanje District Health Office recommended that the study be undertaken at this TBA's facility because she was very active.

Apart from the TBA, the other subjects of the study were pregnant women (who came for antenatal checkups and those that were admitted at the facility awaiting child delivery), women who had just delivered babies and guardians. All subjects present during the study period were included in the study.

Data Collection Methods

The study employed mixed methods of data collection to ensure that rigorous data is collected. The methods were qualitative and quantitative. In both cases, consent was sought from the study participants. Qualitative methods comprised observational studies, Focus Group

Discussions (FGDs) and one-on-one interviews. During observational studies, the researchers participated in antenatal sessions that the TBA undertook with the pregnant women. The sessions involved singing, health talks by the TBA and a physical examination of the pregnancy. The sessions were done once a week (on Fridays). The researchers also observed the TBA delivering babies. Three FGDs were done with pregnant women who attended antenatal clinics, mothers who had just delivered and their guardians. One FGD comprised pregnant women only while the remaining two comprised a mixture of mothers and their guardians. One-on-one interviews were done with the TBA, pregnant women and guardians. A previously prepared checklist of questions was used in the interviews. The researchers also stayed at the TBA's facility continuously for two months to verify the extent to which pregnant women and newly born babies died.

Quantitative method comprised document analysis. Records compiled by the TBA for 4 years (1998 to 2001) were analyzed to determine the number of pregnant women that consulted her and made child deliveries under her assistance.

RESULTS

The results of the study are presented according to the objectives of the study, that is, examination of resources available at the TBA facility, assessment of extent and trend of consultations made by pregnant women, and investigation of factors compelling women to seek TBA services.

Resources Available at Traditional Birth Attendant's Facility

The researchers found that the TBA operated within her household. She had two grass-thatched houses with mud floors. One house had three bedrooms—one was used as an examination area for pregnant women who had come for antenatal checkups. The second room was used as an admission area for pregnant women who were approaching their due date for delivery. This room had reed mats where women slept. The third room was used as a delivery suite. It used to have a mackintosh on which women lay down while delivering. The mackintosh was provided by the government. With time, the mackintosh wore out and the TBA improvised a plastic sheet (normally used for roofing). The re-

searchers also found that the TBA used to receive gloves from the government. However, the government stopped supplying her with the necessary utensils, gloves inclusive. Consequently, the TBA improvised empty packets of sugar to use as gloves.

Number of Women that Made Antenatal Visits to the Traditional Birth Attendant's Facility

Records compiled by the TBA showed that a total of 2077 pregnant women made antenatal visits to the TBA during the 4-year period (1998 to 2001). On average, the TBA attended to 519 pregnant women annually. The highest number of women was in 1999 followed by 2000. The lowest was in 1998 (Table 1).

Table 1: Number of pregnant women who made antenatal visits to a trained Traditional Birth Attendant from 1998 – 2001

Year	Number of pregnant women
1998	199
1999	608
2000	597
2001	505

Source: TBA document review 2012

In terms of monthly clientele, the TBA attended to 43 pregnant women per month (on average) throughout the 4 years. This meant that the TBA attended to one pregnant woman per day. The highest was in June 1999 (80 women) and the lowest in December 2001 (10 women) (Table 2).

Table 2: Number of women who made antenatal visits monthly between 1998 and 2001

Month	Year			
	1998	1999	2000	2001
Jan	13	41	46	46
Feb	9	47	57	45
Mar	25	61	45	54
Apr	21	77	51	56
May	22	58	37	43
June	19	80	55	55
July	16	68	46	33
Aug	18	55	43	65
Sep	16	56	66	62
Oct	18	49	56	39
Nov	18	45	47	46
Dec	27	40	74	11
Total	222	677	623	555

Source: TBA document review 2012

Factors that Compel Women to Seek Traditional Birth Attendants' Services

Focus Group Discussions and one-on-one interviews revealed that many women consult TBAs because of the following reasons.

i. Kindness of TBA

Pregnant women and guardians indicated that although the TBA is poor, they feel comfortable when they are at the TBA's facility. They mentioned that the TBA even shares her food with them when they run out of food. The TBA is also friendly to them. Consequently, the researchers found that some women who lived near district hospitals (main hospital at district level) shunned hospitals. Instead, they walked longer distances to access TBA services.

ii. Abusive Treatment in Public Hospitals

FGDs and one-on-one interviews revealed that previously, many women and/or their relatives had made efforts to deliver at public hospitals but they experienced abusive treatment. They indicated that the nurses in public hospitals were harsh and they spoke degrading words to them. Some of the women claimed to have delivered in the absence of nurses. Much as the facilities in public hospitals were far much better than at TBA's place, they mentioned that what they valued most was kind and humane treatment. That is why they did not mind delivering in a poor environment like the TBAs facility provided they were shown love and care.

iii. Cultural Reasons

FGDs and one-on-one interviews revealed that women felt comfortable to be attended to by a TBA because she was female, elderly and respected in the community. The respondents compared delivery at TBAs place and at the hospital. They mentioned that delivery in hospitals was uncomfortable because some attendants were male. In addition, women complained that some of the birth attendants in the hospitals are very young, matching the ages of their own children. This made them feel like it is their children attending to them during delivery.

iv. Perception

Women that were interviewed indicated that more women died in hospitals than at the TBA's place. They challenged interviewers to stay longer at the TBA's facility to see if there was going to be any maternal mortality. They argued that interviewers would not experience a single death at the facility. They however mentioned that if the interviewers were to go to the district hospital, they would see women dying as frequently as weekly. This made women believe that it is not the TBAs that contribute to the high maternal mortality rate that Malawi is experiencing. They mentioned that it was hospitals that were responsible.

In the two months that the researchers stayed continuously at the TBA's facility, no woman died. The only death that they saw was a Fresh Still Birth, which according to the TBA, was a result of sexually transmitted infection that the woman had contracted.

v. Inaccessibility of Hospitals

During FGDs and one-on-one interviews, some women indicated that they came to the TBA facility because the hospital was far. In order for them to reach the hospitals, they needed to use public transport, which was costly for them.

DISCUSSION

The study has shown that women consult Traditional Birth Attendants for antenatal, child delivery and postnatal services. The consultations did not only happen during the time the TBAs were allowed to practice, but they also happened during the time the TBAs were banned from practicing. This implies that policy change does not deter women from consulting TBAs. This signifies the importance that women attach to TBAs. It also indicates that there are other factors that make women disregard the policy and deliver with the assistance of the TBA.

Facilities Available at TBAs Place

The study has shown that resources are limited at the TBA's facility. When the government was supporting trained TBAs, it used to give them utensils relevant for antenatal checkups and child delivery. These included gloves,

hospital knife, bowl, brush, receiver, bandage, cord ligatures, cotton wool and spirit (Mulanje TBA Coordinator, *pers.comm* 2002). These items were beneficial because all TBAs cannot afford to buy them considering the low-income levels they have. Besides, although they provide the services, their charges are minimal and in some cases in kind (for example, chicken). Generally, the TBAs' charges are reasonable and affordable for people from low-resource settings. For example, in Indonesia, women from poor area of the west Java Province are able to deliver with the assistance of TBAs because they charge USD 5 only while the charge in hospitals is about USD 200 (Titaley et al. 2010).

In the case of the TBA focused in this study, she was improvising gloves and mackintosh. Use of such improvised materials is risky to the mother, newly born child and the TBA. For instance, lack of proper gloves raises chances of contracting HIV/AIDS (Vyagusa et al. 2013) while lack of mackintosh makes women sleep on torn material. With the mud floor, it exposes the baby to dusty environment thus increasing chances of infection.

Extent and Trend of Consultations by Pregnant Women

The findings of this study have shown that a substantial number of women made antenatal visits at the TBA's facility. Extrapolating these results mean that many women seek TBA services countrywide. The findings of this study conform to Bisika (2008) who documented that many women consult TBAs in Malawi. High reliance on TBAs is not only prevalent in Malawi. In Africa and some parts of Asia, TBAs are highly respected and widely consulted because they live within the communities (Izugbara et al. 2009; Kruske and Barclay 2004). In Ethiopia, majority of pregnant women (78%) deliver with the assistance of TBAs despite receiving antenatal care from a health professional. Reasons that make women seek TBAs include beliefs that TBAs are culturally acceptable, high cost associated with hospital deliveries, inaccessibility of health facilities, and poor quality of care and negative experience with hospital staff (Titaley et al. 2010; Shiferaw et al. 2013). This underscores the fact that TBAs cannot be ignored in maternal health programs. TBAs shall remain an important resource in the foreseeable future (Islam and Malik 2001).

Factors that Compel Women to Consult Traditional Birth Attendants

The study has shown that women consult TBAs for different reasons. The first reason is that the women are not attracted by financial or material factors, but just kindness. Kindness was also mentioned by Owolabi (2015) as one factor that compels women to consult TBAs in Nigeria. The study reported herein found that kindness is linked to the second factor, abusive treatment found in hospitals. Abusive treatment is not unique to Malawian hospitals. Vyagusa et al. (2013) reports that unfriendly treatment received in hospitals is one of the factors that compel women to deliver outside the hospitals. Despite having better facilities in hospitals, women shun the hospitals and seek assistance from poor TBAs who live under humble environment.

The third reason that compels women to seek a TBA's assistance is culture. Women regard child delivery as something, which is supposed to involve women only because men do not bear children. Consequently, in Malawi, most TBAs are women. However, in the hospitals, there are male nurses and doctors in maternity wards. This makes women (especially those from rural areas) uncomfortable. They regard this as culturally unacceptable. Respect of delivery rituals, privacy and being culturally sensitive in provision of maternal healthcare are important factors in attracting women to seek the maternal services (Walraven and Weeks 1999). By virtue of the TBAs living within the same communities, they share the same culture with the women, making them compatible (Saravana et al. 2010).

Perception that more maternal deaths occur in hospitals than at TBA facilities was the fourth reason that compelled the women to seek TBA services. Although the researchers did not check medical records at the district hospital to verify how many maternal deaths occur, the fact that there was no single maternal death from medical records compiled by the TBA in four years encouraged pregnant women and guardians to use these services for child deliveries. The TBA seemed to have indigenous child delivery skills that were respected and appreciated by the communities.

It is undoubted that there are maternal deaths at other TBA's facilities but the TBA who was the focus of this study revealed that it is not all

TBAs that contribute to Malawi's maternal mortality. There are also other TBAs in Malawi who have successfully delivered numerous children for many years. There have also been documentaries of TBAs' work and how it contributes to maternal health. Before TBAs were banned from practicing, students from University of Malawi's Kamuzu College of Nursing (KCN) used to visit a TBAs facility to learn how they conduct she services. Students were amazed to see how the TBA, who was illiterate, was able to deliver babies using techniques, which the students had learned at the university. Cases like these and the TBA studied in this paper, underscore the fact that there are some TBAs who are a resource to Malawi and their skills and services cannot be ignored. In view of the fact that some rural areas are far away from hospitals, and some rural women feel safer to deliver at a TBAs place (due to non-existent of maternal deaths) than at a hospital, it is an indication that women will continue to seek TBAs services.

CONCLUSION

This paper shows that many women consult TBAs for antenatal care due to several reasons. Some of the reasons are cultural hence difficult to change immediately. Abusive treatment in hospitals also compels women to seek TBA assistance even if the hospital is nearby. As the government has reassigning new roles to TBAs and continues to face financial challenges in the delivery of health services, there is a need to consider issues raised in this paper in order for the policy to be implemented effectively. Integration of TBAs in the healthcare delivery system is key if a country is to achieve sustainable development goal number 3 (good health and well-being).

RECOMMENDATIONS

In view of the findings of this study and considering that women still consult TBAs irrespective of policy, it is evident that women shall continue to consult TBAs. This paper recommends the following:

Resources should be made available to ensure that the deliveries that occur at TBAs facilities are hygienic and safe. This can be achieved through reintroduction of TBA courses (and refresher courses for those TBAs that were al-

ready trained), provision of delivery kits and other important materials, and ensuring that there is readily available transport to refer complicated cases to hospitals.

Shelters that the government has constructed could be used by TBAs and the women that prefer to deliver with the assistance of TBAs. Such arrangement could ensure that the women are given a chance to choose the services they prefer. The arrangement could also ease the referral system. For example, in case a complication arises during delivery under TBA assistance, the case could easily be referred to the hospital without the need for provision of transport (which is a scarce resource in Malawi's hospitals).

Donor assistance should be sought in the provision of efficient transport for expectant women that are referred to hospitals

There is a need for accepting that TBAs have been in existence for a long time, hence it will be impossible to ban them completely from the healthcare delivery system. Their services need to integrate into the modern healthcare delivery system. It is important that the competent TBAs should be empowered through trainings and provision of basic amenities so that delivery of their services is strengthened. This study has revealed the factors that make women shun hospitals. Although this was a case study of a single facility, consultations were made with several women implying that the factors mentioned would be applicable countrywide. The fact that some of the women shun hospitals because of rudeness of staff is a problem facing many hospitals of Malawi.

ACKNOWLEDGEMENTS

The researchers are grateful to the anonymous TBA for granting permission to her medical records, allowing them to interview her and to stay at her premises. The researchers are also thankful to all pregnant women and their guardians who gave the invaluable information. The researchers are grateful to the UNESCO Man and Biosphere program for supporting the study.

REFERENCES

- Alemayesu M, Mekonnen W 2015. The prevalence of skilled birth attendant utilization and its correlates in North West Ethiopia. *BioMed Research International*, 2015(2015): 8 pages.
- Anyangu-Amu S 2010. Maternal Deaths Fall. From <<http://ipsnews.net/africa/nota.asp?idnews=52849>> (Retrieved on 7 November 2010).
- Bisika T 2008. The effectiveness of the TBA program in reducing maternal mortality and morbidity in Malawi. *East Afr J Public Health*, 5(2): 103-110.
- Choguya NZ 2014. Traditional birth attendants and policy ambivalence in Zimbabwe. *Journal of Anthropology*, 2014(2014): 9 pages.
- Central Intelligence Agency 2013. The World Factbook. From <<https://www.cia.gov/library/publications/the-world-factbook/fields/2223.html>> (Retrieved on 6 November 2016).
- Combs Thorsen V, Sundby J, Malata A 2012. Piecing together the maternal death puzzle through narratives: the three delays model revisited. *PLoS One*, 7(12): 10.1371.
- Islam A, Malik F 2001. Role of traditional birth attendants in improving reproductive health: Lessons from the Family Health Project, Sindh. *Journal of Pakistan Medical Association*, 51: 218.
- Izugbara C, Ezeh A, Fotso JC 2009. The persistence and challenges of homebirths: Perspectives of traditional birth attendants in urban Kenya. *Health Policy Plan*, 12: 36-45.
- Kamal I 1998. The traditional birth attendant: A reality and a challenge. *International Journal of Gynecology and Obstetrics*, 63(1): S43-S52.
- Kironde S, Lukwago J, Ssenyonga R 2003. Scaling the frontier - should traditional birth attendants also be used to provide nevirapine for PMTCT in Uganda? *African Health Sciences*, 3(2): 102-103.
- Kongnyuy EJ, Mlava G, van den Broek N 2009. Facility-based maternal death review in three districts in the central region of Malawi: An analysis of causes and characteristics of maternal deaths. *Womens Health Issues*, 19(1): 14-20.
- Kruske S, Barclay L 2004. Effect of shifting policies on traditional birth attendant training. *J Midwifery Womens Health*, 49(4): 306-311.
- Lanre-Abass B 2008. Poverty and maternal mortality in Nigeria: Towards a more viable ethics of modern medical practice. *International Journal of Equity in Health*, 7: 11.
- Malawi Government 1993. *Situation Analysis of Poverty in Malawi*. Lilongwe.
- Maliwichi-Nyirenda CP, Maliwichi LL 2009. Poverty and maternal health in Malawi. In: TW Beasley (Ed.): *Poverty in Africa*. New York: Nova Science Publishers, Inc., pp. 105-131.
- Matthews Z 2002. *Maternal Mortality and Poverty*. London: DFID Centre for Sexual and Reproductive Health.
- Mikey R 2006. Women's groups' perceptions of maternal health issues in rural Malawi. *The Lancet*, 368: 1180-1188.
- Ministry of Health and Social Welfare, World Health Organisation and European Union 2008. *Zanzibar Traditional and Alternative Medicine Policy 2008*. Revolutionary Government of Zanzibar, Dodoma.
- National Statistical Office (NSO) and ICF Macro 2011. *Malawi Demographic and Health Survey 2010*. Zomba, Malawi, and Calverton, Maryland, USA: NSO and ICF Macro.
- National Statistics Office 2012. *Third Integrated Household Survey*. Malawi: Zomba.

- Owolabi OO, Glenton C, Lewin S, Pakenham-Walsh N 2014. Stakeholder views on the incorporation of traditional birth attendants into the formal health systems of low-and middle-income countries: A qualitative analysis of the HIFA2015 and CHIL2015 email discussion forums. *BMC Pregnancy and Childbirth*, 14: 118.
- Santorri C 2010. Maternal Mortality Rate is Unacceptable. *New African*. From <http://findpapers.com/p/papers/mi_qa5391/is_201008/ai_n55068988/> (Retrieved on 7 November 2010).
- Saravanan S, Turrell G, Johnson H, Fraser J 2010. Birthing practices of traditional birth attendants in South Asia in the context of training programs. *J Health Manag*, 12(2): 93–121.
- Shiferaw S, Spigt M, Goodefrooij M, Melkamu Y, Tekie M 2013. Why do women prefer home birth in Ethiopia? *BMC Pregnancy and Childbirth*, 13(1): 5.
- Simmit JJ 1994. Traditional birth attendants in Malawi. *Curationis*, 17(2): 25-28.
- Smith JB 2008. *Traditional Birth Attendants in an Era of Skilled Attendance at Delivery*. Washington DC: Woodrow Wilson Institute.
- The Health Foundation Consortium 2007. *Reducing Maternal Death Rates in Malawi*. Unpublished Progress Report. Lilongwe, Malawi.
- Titaley CR, Hunter CL, Dibley MJ, Heywood P 2010. Why do some women still prefer traditional birth attendants and home delivery? A qualitative study on delivery care services in West Java Province, Indonesia. *BMC Pregnancy Childbirth*, 10: 43.
- United Nations Population Fund (UNFPA). State of the World's Midwifery. From <http://www.unfpa.org/sowmy/resources/docs/country_info/profile/en_Malawi_SoWMy_Profile.pdf> (Retrieved on 6 November 2015).
- Verderese ML, Turbnull LM 1975. *The Traditional Birth Attendant in Maternal and Child Health and Family Planning*. Geneva: World Health Organisation.
- Vyagusa DB, Mubyazi GM, Masatu M 2013. Involving traditional birth attendants in emergency obstetric care in Tanzania: Policy implications of a study of their knowledge and practices in Kigoma Rural District. *International Journal for Equity in Health*, 12(1): 83.
- Walraven G, Weeks A 1999. The role of (traditional) birth attendants with midwifery skills in the reduction of maternal mortality. *Tropical Medicine and International Health*, 4(8): 527–529.
- World Health Organization 2005. Make Every Mother and Child Count. Geneva: WHO. From <<http://www.who.int/whr/2005/en/index.html>> (Retrieved on 7 May 2010).

Paper received for publication on May 2014
Paper accepted for publication on April 2016