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Experience of Implementation of Safe Motherhood Program with Traditional Health Practitioners in Central Zone (Singida and Dodoma region) of Tanzania

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Abstract

The aim of the paper, through gray literature review, is to show the impact on training traditional health practitioners in reducing maternal mortality in rural areas with specially focus to traditional birth attendance in Central Region of Tanzania. Traditional birth attendances were trained on safe delivery and prompt referral to formal health services for cases that were beyond control. The impact of training are improved save deliveries, increased collaboration with formal health practitioners which is expected to reduce maternal mortality and increase referral to formal health facilities. Also it helped to change traditional birth attendance attitudes towards female circumcision. Traditional health practitioners are potential resources for reducing maternal mortality including improving health care in rural settings in resource poor countries. What is needed is to identify them, map their distribution and empower by training on basic primary healthcare services related to child delivery and after delivery. The Central region case study is a typical case of how traditional health practitioners can be full utilized in order to improve health care. Traditional health practitioners exist in rural areas and play an important role in healthcare and should be taken on board for improvement of health in both rural and urban areas.

Keywords: Traditional health practitioners; Traditional birth attendants; Traditional healers; Child delivery; Female circumcisions

Introduction

Safe motherhood means ensuring that all women receive the care they need to be safe and healthy throughout pregnancy and childbirth [1], and also after birth. Family Care International [2], has revealed that every minute of every day, somewhere in the world and most often in a developing country, a woman dies from complications related to pregnancy or childbirth. Further Family International [2], has argued that 515,000 women, at a minimum, are dying every year leave alone the number of women who are in maternal morbidity. Most of maternal deaths (99 percent) occur in the developing world. New born babies are also under going this terrible fate of death at birth or within weeks after birth. It is being acknowledged that every woman who dies, 30 to 50 women suffer injury, infection, or disease. Moreover pregnancy related complications are among the leading causes of death and disability for women age 15-49 in developing countries. However, most maternal morbidity and deaths could be prevented if women had access to appropriate health care during pregnancy, childbirth, and immediately afterwards [2]. Based on these terrible experiences child bearing women face Safe Motherhood Program was initiated in 1987-2005 as a way of curbing the maternal morbidity and infant mortality [2]. In Africa where the human resources and health facilities are poor and inadequate traditional health practitioners who have been the main healthcare provider till coming of conventional medicine became one the options in implementing Safe Motherhood Program.

Traditional health practitioners (THPs) are persons who are recognized by the community in which they live as competent to provide health care by using vegetables, animal and mineral substances and other certain methods based on social, cultural and religious background as well as on the knowledge, attitudes and beliefs that are prevalent in the community regarding physical, mental and social wellbeing and their causation of disease and disability [3]. THPs are divided into two main groups; and these are traditional midwives and traditional healers (THs). Traditional midwives are usually females who assist child delivery using traditional materials and methods and provide care to mother and child after delivery [3]. THs on the other hand are persons who manage wide range of illness through use of spiritual powers, herbal remedies and sometimes use part of animals and mineral materials obtained locally and prepared by the practitioner [3,4]. THs are divided into different categories like herbalists, bone setters, diviners, faith healers, spiritual mediums etc [4,5]. Spiritual medium healers seem to be at the highest position and some other healers can consult them. However, it is difficult to make a clear cut line among categories because in practice one can find a traditional healer being a spiritual medium, herbalist, bone setter and diviner [4,5]. All in all, THPs have been providing health care to people from time immemorial and are still providing it today both in rural and urban areas [3-6]. For example Schaer [7], has argued that there are some diseases which respond to traditional medicine better than to modern medicine such as asthma, epilepsy, neurosis, hypertension syphilis (2nd stage, fracture and paralysis).

Besides the diseases mentioned traditional midwives, mother in law, sister-in laws, aunt etc are attending more than 80% of child deliveries world wide and some of them are complicated cases [6,8]. World reports argue that maternal mortality world wide claim over 500,000 women who die because of complications related to pregnancy and childbirth each year [6,8,9]. One of the major underlying cause in most developing countries is access to safe motherhood services in rural areas is more limited than in urban areas [8-11]. Over 99 percent of

those deaths occur in developing countries such as Tanzania [1,2,9,11]. Why can't we use the omnipresent traditional midwives by training them on safe delivery with supervision of the trained experts from the formal health facilities? [4-8]. Is it because of the claim of some experts who raised doubts that traditional midwives cannot reduce maternal mortality? This paper attempts to evaluate the training on Safe Motherhood Program with Traditional Health Practitioners in Central Zone (Singida and Dodoma region) of Tanzania using literature review.

Status of Traditional Health Practitioners on Healthcare and Maternal Health in Tanzania

The role of THPs in provision of health care have been neglected till in 1980's when the government of Tanzania and other African countries began paying attention to THPs as potential health care providers in rural areas where modern health services are inadequate [4,6] and also as the emergence of HIV/AIDS which has no cure till today [12,13]. Tanzania has developed and put in place the Traditional and Alternative medicine Act of 2002 which provides room and guides THPs to practice traditional medicine in Tanzania [14]. Also she has developed regulations for practice of traditional medicine [15]. These regulations are likely to help to reduce charlatans and quacks that have been tempering the practice of traditional medicine, and painting the practice with bad name.

Nevertheless the exact total number of THPs in Tanzania is not known. From gray literature of late 1970s Safe [16] recorded 4,457 TBAs and out of them 1,337 were traditional midwives and were trained on basic primary health care (PHC), with focus to child delivery and managing infant and child diarrhea, family planning and further showed their distribution per region but did show the distribution per district. The Institute of Traditional Medicine of Muhimbili University of Health and Allied Sciences on the otherhand has reported the total number of THPs is 80,000 [17] without the distribution per sex and per region. The Council of Traditional and Alternative Practitioners by the beginning of 2015 has registered more 6,000 traditional and alternative practitioners. In order to take THPs on board on improving healthcare through primary health care there is a need to map up THPs distribution and their specific roles in health care. Hence efforts required identifying the THPs and their specific location, learning what they are doing and seeing in what ways the new knowledge health care will be imparted, so that it yields the desired results of improvement of health for all at PHC level and especially in reducing maternal morality. It has to be acknowledged that THPs are potential human resources for intervention programs in the community because these are cultural accepted health practitioner by the community where they live [4-8,18,19].

One of the major health problems in Tanzania and other African countries is maternal mortality [8,20-25]. Maternal mortality refers to those deaths which are caused by complications due to pregnancy or childbirth [1,2]. These complications may be experienced during pregnancy or delivery itself, or may occur up to 42 days following childbirth [1,2,9]. For each woman who succumbs to maternal death, many more will suffer injuries, infections, and disabilities brought about by pregnancy or childbirth complications, such as obstetric fistula [8,18]. In most cases, however, maternal mortality and disability can be prevented with appropriate health interventions programs [1,2,9,11] and should take on board traditional midwives who are with people in the community (Figure 1).

In Tanzania, despite the efforts done by the government through the use of maternal child health care that provide combination of preventive and curative health services for women and children, antenatal and postnatal care, normal deliveries, immunization, child spacing, nutrition, education, malaria, chemosuppression for pregnant women, children and treatment of simple diseases [10,11,20,23,26-30], Tanzania's maternal mortality rate continues at an unacceptably high level [8,10,11,19,20,23,28]. While maternal mortality figures vary widely by source and are highly controversial, the best estimates for Tanzania suggest that roughly between 7,500 and 15,000 women and girls die each year due to pregnancy related complications [9,11]. Additionally, another 150,000 to 450,000 Tanzanian women and girls will suffer from disabilities caused by complications during pregnancy and childbirth each year [9,20,22]. Besides the maternal mortality health problem, there other health problems that affect people in Tanzania such as malaria, HIV and AIDS, diarrhea, respiratory diseases and chronic diseases like cancer, blood pressure. All these mentioned THPs are involved in managing them especially in rural areas where health facilities and medical experts are limited.

By average 78% of Tanzanian population live in rural areas, where 41% access health facilities as opposed to urban areas where 65 access health facilities [6,18,29]. The available facilities lack skilled personnel and, drugs, gloves and other equipments that can assist save child delivery in these facilities, and therefore more child bearing women deliver at home with the assistance of mother in law, aunt, sister-in-law, relatives and traditional midwives [6,18,19]. Similar situation to other health problems most people visit traditional health practitioners. As argued earlier it is impossible to flood the health facilities with skilled hospital personnel drugs and equipments. In order to reduce maternal mortality as a way of meeting the 5th millennium goal which aims to reduce maternal mortality by three quarters between 1990 and 2015 developing countries are left with one option of using the omni present traditional health practitioners and especially the traditional midwives. THs and traditional midwives are already an expert [6,9,18,19] what is needed is to improve their skills through training and supervising with skilled personnel on safe child deliveries.

A Case Study of Central Region of Tanzania

Gray literature in Central region of Tanzania (comprising Dodoma and Singida administrative regions respectively) was reviewed on the presence of THPs, they role in healthcare and if there was any training to improve their practice in relation reproductive health with focus to reduction of maternal mortality. The findings showed that Tanzania has rich resources of THPs but untapped for improving healthcare in areas underserved with modern health services. In Dodoma region for example, the region has 45 villages in which a total of 344 THPs. These THPs were identified by allopathic health workers. These health workers also mapped their distribution per district (Tables 1 and 2). Out of 344 THPs 263 (76.5%) were traditional midwives and all of them were trained on safe delivery, family planning, handling diarrhea cases of infants and children [16]. Besides the traditional midwives, 81 (23.5%) of the total THPs identified in the region were herbalists. There were no data of traditional midwives and herbalists in Dodoma urban district because it was not a target area. The Dodoma urban people could use the present available formal health services in the urban area. On average, if the urban district were excluded, then each village in Dodoma region had 6 traditional midwives and 2 Herbalists (Table 2). Most of traditional miwives and herbalists identified and

recorded were the ones who were willing to be trained on basic PHC (like hygiene, safe remedies, safe child deliveries encouraging expecting mothers to go to MCH clinic, family planning vaccinations, and referrals to conventional health facilities (CHPs) for the issues beyond their control and most of them were collaborating with CHPs in intervention health programs in the region.

Type of THPS	Name of the Districts				Total
	Dodoma Urban	Dodoma Rural	Mpwapwa	Kondoa	
N o. of trained TBAs	--	158	80	25	263
No. of untrained TBAs	--	---	--	--	--
* No of Herbalists	--	52	10	19	81
Total THPs	--	210	90	44	344

Table 1: Distribution of traditional birth attendants (tabs) and herbalist in Dodoma region.

Type of THPS	Name of the Districts				Total
	Dodoma Urban	Dodoma Rural	Mpwapwa	Kondoa	
Total no. of TBAs	--	158	80	25	263
Total no. Village	--	19	19	7	45
Average no. of TBAs per Village	--	8	4	4	6
No of Herbalists	--	52	10	19	81
Average no. of Herbalist per Village	--	3	2	3	2
Note: 1. No of Village are based on area in which MCH operate. 2. Average number for THs and TBAs has been taken the nearest whole number because a human being cannot have decimal points.					

Table 2: Average number of TBAs and herbalists per village in Dodoma region.

In Singida region on the other hand has 61 villages with a total of 1087 THPs. Of these THPs 827 (76.1%) were traditional midwives and 260 (23.1%) were herbalists, and most (67.2%) of them were from Singida Rural District (Tables 3 and 4). One hundred forty seven TBAs (17.8%) were trained in basic PHC, 75 (9.1%) traditional midwives were in training and 605 (73.1%) were not trained. On average each village had approximately 13 midwives and 4 herbalists of them were in villages of Singida rural District (Table 4).

NGOs working are also doing a recommendable job especial on THPs. For example Kayombo [18], reported that Mvumi Hospital in collaboration with Oxfam operated in a small scale in nine villages which were around the Hospital. On average each village has approximately 15 traditional midwives and 3 herbalists. Mvumi Hospital with collaboration with Oxfam trained TBAs on three key basic areas: 1) Safe child delivery using traditional methods, 2) Management of child diarrheas with the use of home made fluid, 3) Record keeping and prompt referral of cases that were beyond their control to formal health services to villages those were around Mvumi Hospital. The methodologies of teaching were theory and practical observations to cases that were admitted at Mvumi Hospital.

Kayombo [18], who carried a Ministry of health and AMREF Consultant, reported at Makangwa village the traditional midwives were mainly involved in assisting child deliveries and managing infant and child diarrhoea. In a five month period from 1st January to 31st May 1992, 61 child deliveries were attended by 9 traditional midwives. Six of them were complicated cases and were referred to the Mvumi Hospital. Thus on average each TBA attended 7 deliveries in a five months period; but some traditional midwives many cases of child delivery in the same period.

For example traditional midwive X from Mkangwa attended 22 child deliveries and Y at Magoli village attended 10 child deliveries in the same period. Kayombo [18], reported that some of the TBAs had logbook for recording the patients. The training has brought the two partners in health care to cooperate in the provision of health care with each other. Kayombo [18], has shown that traditional midwives were being called to examine the patient together with formal trained medical personnel in hospital settings.

Types of THPs	Name of the Districts				
	Singida Urban	Singida Rural	Manyoni	Iramba	Total
No. of Trained TBAs	--	71	32	44	147
No of TBAs on Training	--	--	75	--	75
No of TBAs untrained	--	506	97	--	605
No of herbalist	31	154	37	38	260
Total THPs	31	735	241	82	1087
*The data of the herbalist was obtained from DMO's office					

Table 3: Distribution of TBAs and herbalists per district in Singida region. Source: Regional Medical officer's office in Singida.

Category	Name of the Districts				
	Singida Urban	Singida Rural	Manyoni	Iramba	Total
Total no TBAs	--	577	204	44	825
Total no Village	4	10	24	23	61
Average no of TBAs per Village	--	58	9	2	14
Number of herbalists	31	154	37	38	260
Average No. of village	8	16	2	2	4
No of Villages were based on village in which MCH operate *The data of the herbalist was obtained from DMO's office Note: Average number for THs and TBAs has been taken the nearest whole number because a human being cannot have decimal points					

Table 4: Average no of TBAs and herbalists per village in Singida region.

Further Kayombo [18], has argued some traditional midwives had logbook for recording the patients. In so doing the MCH coordinator with her staff taught the traditional midwives the signs of complicated cases by seeing the patient and advised them to refer such cases immediately to the hospital.

Kayombo [18], argued that the circumcision of girls that was common practice among the Wagogo and Wanyaturu ethnic groups. The circumcision to the girls aimed to reduce sexual desire and hence avoid early pregnancy. Efforts to change the practices have been made by giving examples of some circumcised girls were sexual active as those who were uncircumcised. To villages around Mvumi Mission Hospital on the otherhand it was solved by teaching the traditional midwives the health problems resulted by circumcision such as infection and problem at child delivery to circumcised women by theory. After that the MCH coordinator with her staff took the traditional midwives to the hospital for practice and they jointly examined a woman who was circumcised and the problem she encountered at delivery. Kayombo [18], has shown another cultural problem reported by Mvumi MCH coordinator was the use of herbal remedies that accelerate delivery at birth. Like circumcision, the problem was tackled by teaching traditional midwives in theory the side effects of using herbal remedies when the dosage was not proper such as infection and rupture of the uterus. After that the traditional midwives were taken to hospital for practice on cases where the traditional herbal remedies had been used. The MCH commended that the exercise was successful because it has reduced maternal mortality in the area but did not show the figures. The Mvumi Hospital approach to tackling cultural problems related to child delivery appears to be good, but it requires patient tolerance and dedication when one works with traditional midwives. Kayombo [18], further shown that after education to the traditional midwives, the MCH reported that the practice has changed. However the MCH reported culture dies hard, most of girls who were currently circumcised were sent by parents to traditional midwives in privacy.

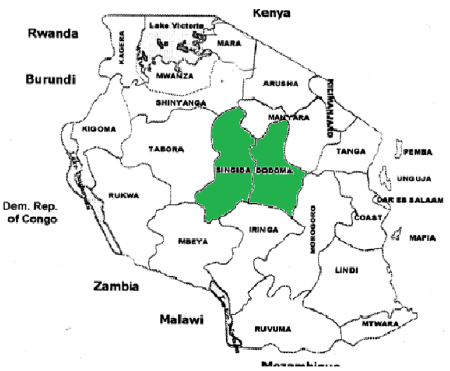

Figure 1: Map showing Dodoma and Singida administrative regions.

Discussion

THPs and especially the traditional midwives can help to reduce maternal mortality and other maternal health problems, thus meeting the 5th millennium goal if empowered with basic skills in assisting child deliveries and with supervision of skilled personnel as shown by Mvumi hospital MCH coordinator and not by hit and run as shown by Safe Motherhood Programme of 1980s and expect to be successful. There is no wonder the programme did not yield tangible results. The attributes that contributed to failure of Safe Motherhood programme are lack of clear vision what traditional midwives should be trained in and the methodology to be used [16] that would help traditional midwives to improve in assisting child deliveries in a better way and hence reducing maternal morbidity and mortality, variation of traditional midwives in terms of knowledge and experience on child deliveries and how cultural components could compromised [6,8,18], then the question of resources and time for training [27]. However Mvumi hospital in collaboration with Oxfam managed in three years time of the study period because it has a clear vision what traditional midwives should be taught and the methodology to be used that would likely change their attitude and practice in assisting child deliveries in a better way [18].

Reducing maternal morbidity and mortality in resource poor countries like Tanzania by providing professional skilled care, including the possibility to reach a well-equipped hospital if needed as argued by specialist [9,11,20,27] is very unlikely. As stressed by IRIN [30] on child deliveries, if just 70 percent of all pregnant women were to deliver at the hospital, the hospital system would not cope. There is no way resource poor countries can flood conventional health facilities and human resources in all villages at ones where people can access them with easy. Developing countries needs to involve traditional midwives that can help to reduce maternal morbidity and mortality.

The existence of THPs and their role in provision of health care are supported by literature reviews in many developing countries [31-38]. For example, Kayombo [18], has argued that the MCH Coordinators in the two regions expressed that traditional midwives if harnessed well were one of the important potential resources which the health sector has not developed and prepared it. Exploiting this potential resource can help to reduce the current high maternal morbidity and infant mortality [6,8,19,36]. This argument was amplified by the Mvumi hospital MCH coordinator who stressed that only 20% of the total child deliveries to the villages which surround the Mvumi hospital were done in Mvumi hospital and the dispensaries which are around the hospital [16]. Eighty percent (80%) were done by traditional midwives, relatives, mothers and mother in laws at home. This implies that it is not only the distance which determine to deliver at home but there are other factors as well [6,19] that need to be identified and be in-cooperated in the training programme.

In addition to Mvumi hospital MCH coordinator showed in 1991 there were a total of 42,204 [18], child deliveries done in formal health services in the two regions. Potential child bearing women in the same period were 424,557 [18]. If we assume half of the potential child bearing age women delivered; and the rest were either in school, unmarried, breast feeding, infertile and etc., then 212,278 were supposed to have delivered. Thus, the percentage of child deliveries done in formal health services in 1991 was 42,204/212278=19.9% approximately 20%. The rest were done at home with the assistance of traditional midwives, mother in laws, aunt and relatives [39].

As shown by Mvumi MCH coordinator it appears that despite the presence of health facilities still child deliveries are either assisted by traditional midwives, mother in law, sister or co-wives at home. This problem of delivering at home seems to cut across to many developing countries despite the access to the health facilities [6,8,16,19,30-38,40]. For instance in West Africa show 60-80% of child deliveries is done by traditional midwives [32]. Kakar [33], in India and Irin [31], in Malawi have argued that almost half the deliveries are done by unskilled birth attendants. Hence there is a need to identify them and train them by the use of seminars for safe deliveries. Emphasis should be on identifying symptoms of risky cases that need to be referred to formal health services and hygiene to prevent the mother and the child from infections.

The gray literature reviewed in Central region of Tanzania suggests that there is a good number of THPs (Tables 1 and 2) which is untapped in areas which do not have access to formal health facilities. For example as shown by Kayombo [18], if we assume that number of traditional health identified by Mvumi hospital with collaboration with Oxfam per village, in Dodoma region were more less the same in each village in Dodoma region, then Dodoma region with her 96 villages would have approximately 1440 traditional midwives and 288 herbalists [18], and hence closer to the people where they can access health service with low cost. To reduce maternal morbidity and mortality in developing countries need to identify THPs who have proven experience in their locality where they operate and identify the training needs and in cooperate them in training program by focusing basic PHC level and specifically on issues related to maternal health issues and referrals. All in all to get good and committed THPs in indigenous community need to be done gradually by creating rapour and building trust to THPs [3,39].

The impact of training THPs is creating rapour and familiarity between the two health systems of practitioners. It is through familiarity that leads traditional midwives to be open and works as partners in health care and share experience as shown by Mvumi Mission Hospital MCH coordinator. Similar observation has been noted by Popline [32], in West Africa and in Nigeria [33,40] of working together as partners.

The traditional midwives are the product of cultural system in the community they live. One of their roles is to protect their culture and

its beliefs and values not to be invaded with other cultures [6,8,19,39]. For example, circumcision of girls in Central Zone of Tanzania is part of their culture and is still in practice still today [41]. However, examining the Mvumi Mission Hospital approach at tackling cultural problems appear to be successful but it requires patient tolerance and dedication when one works with traditional midwives. Similar findings have been shown by Populine [32], in west Africa, Adadevoh [36], in Ghana, Asghar [38], in Pakstan and Lartson [42], in India.

Conclusion

The important role of THPs in providing healthcare in underserved areas with modern health facilities cannot be denied. In the process of planning and implementing the project has to take into account the role of THPs on their role as providers of health care and on account of the cultural factors. There might be many problems, hence there is a need to identify such cultural factors which might act as barriers to the project and find a solution to the identified problems. Dedicated MCH in improving health care in the community should be noted and be requested to work with them in their respective areas in the overall project as partners. These MCH coordinators are already experienced in the field and know the cultural problems and the possibility in circumventing such problems.

References

1. Safe Motherhood (2007) Safe motherhood.
2. Family Care International (2000) Safe motherhood review.
3. World Health Organization (2001) Promoting the role of traditional medicine in health System: Strategy for african region. WHO regional office for Africa, Harare, Zimbabwe.
4. United republic of Tanzania (2000) Ministry of health the national traditional and traditional birth attendants Implementation Policy Guidelines.
5. World Health Organization Afro (1976) African traditional medicine, Report of the regional expert committee. Afro Technical Report Series 1: 3-4
6. Kayombo EJ (1997) Traditional birth attendants (TBAs) and maternal health care in Tanzania 8: 288-305.
7. Schaer A, Jenkins JM (1988) Evaluation of Swissaid project traditional medicine Ukerewe/Bukoba Swiss Tropical Institute, Basel Dept. Public health and epidemiology.
8. Cominsky S (1983) Traditional midwifery and contraception. Traditional medicine and healthcare converage
9. http://www.futuresgroup.com/
10. United Republic of Tanzania (2010) Demographic Health survey DHs, National Bureau of Statistics (NBS), Dar-es-Salaam.
11. Mwaikambo E (2010) Improving maternal, newborn and child health in Tanzania: From science to action.
12. UNAIDS (2006) Collaborating with traditional healers for HIV prevention and care in sub-Saharan Africa: Suggestions for programme managers and field workers,
13. UNAIDS (2000) Collaboration with traditional healers in HIV/AIDS prevention and care in sub Saharan Africa, Literature Review. Geneva, Switzerland.
14. United republic of Tanzania (2002) Ministry of health and social welfare. The traditional and alternative medicine act. Dar-es-Salaam, Tanzania.
15. United Republic of Tanzania (2002) The traditional and alternative medicine act, supplementary no 43, subsidiary legislation. Dar-es-Salaam, Tanzania.
16. Safe JA (1989) Short report on traditional midwives for the Ministry of Health.
17. http://itm.muhas.ac.tz/
18. Kayombo EJ (1992) Distribution of birth attendants and herbalist in Dodoma and Singida. A consultant report.
19. Kayombo EJ (2013) Impact of Training traditional birth attendants on maternal mortality and morbidity in Sub-Saharan African countries. Tanz J Heal Res 152: 1-11.
20. UNFPA (2001) Obstetric fistula occurs as a result of a prolonged and obstructed labor, which in turn is further complicated by the presence of female genital cutting.
21. UNICEF (2010) Maternal and child health.
22. WHO (2014) Consultation on improving measurement of the quality of maternal, newborn and child care in health facilities.
23. https://en.wikipedia.org/wiki/Maternal_and_child_health_in_Tanzania
24. http://www.tz.undp.org/content/tanzania/en/home/mdgoverview/overview/mdg5/
25. (2014) Countdown 2014 report for Tanzania.
26. WHO (2014) Global health observatory data repository.
27. Pathfinder International Tanzania (2008) Reproductive health and family planning in Tanzania: The pathfinder international experience.
28. Ochieng R (2010) Mwaikambo: Nation`s maternal, child mortality alarming still.
29. United Republic of Tanzania (2008) Ministry of health and social welfare: The national road map strategic plan to accelerate reduction of maternal, newborn and child deaths in Tanzania.
30. Kayombo EJ, FC Uiso, Mahunnah RLA (2012) Experience on healthcare utilization in seven administrative Regions of Tanzania. J Ethnobio Ethnomed 8: 5.
31. Malawi I (2007) Role of traditional birth attendants to change.
32. Popline (1988) Traditional birth attendants in west africa excerp health network news.
33. Kakar DN (1980) DAIS: The traditional birth attendants in village India. New Asian Publishers, Delhi. pp: 151.
34. http://www.popline.org/docs/0421/263900.html
35. Brennan M (1988) Training traditional birth attendants reduces maternal mortality and morbidity. Trop J Obstet Gynaecol 1: 44-47.
36. Adadevoh SW (1988) Maternal mortality in Ghana: Is there a place for traditional birth attendants (TBAs) as reporters of maternal mortality-related data? Trop J Obstet Gynaeco 1: 40-44.
37. Popline (2006) Traditional birth attendants, HIV/AIDS and safe delivery in the Eastern Cape, South Africa evaluation of a training programme, South African. J Obstet Gynaecol 12: 140-145.
38. Jawad AR (1999) Obstetric complications and role of traditional birth attendants in developing countries. J Coll Physicians Surg Pak 9: 55-65.
39. Kayombo EJ, Febronia C (2007) Experience in initiating collaboration of traditional heallers in managing HIV/AIDS in Tanzania. J Ethnobiol Ethnomed 3: 6.
40. http://allafrica.com/stories/200710240460.html
41. Central Zonal Office (2017) Brief information for training for midwives midwives in the Central Region.
42. Lartson LL, Ebrahim GJ, Abel R (1987) Perspectives in primary care: The trained traditional birth attendant: A study of her role in two cultures. J Trop Ped 33(1): 29-34.