

**ASSESSMENT OF THE IMPLEMENTATION PROCESS OF
MATERNAL HEALTH PROJECT ON EMERGENCY OBSTETRIC
CARE AND NEONATAL SERVICES IN RURAL SETTINGS
A CASE OF UVINZA DISTRICT COUNCIL- KIGOMA**

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MATERNAL HEALTH PROJECT ON EMERGENCY OBSTETRIC
CARE AND NEONATAL SERVICES IN RURAL SETTINGS:
A CASE OF UVINZA DISTRICT COUNCIL-KIGOMA**

**By
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**A Dissertation submitted to the School of Public Administration and Management
in Partial Fulfillment of the Requirements for Awards of Master's Degree of
Health in Monitoring and Evaluation of Mzumbe University.**

2016

CERTIFICATION

The undersigned certifies that has read and hereby recommends for acceptance by Mzumbe University, a Thesis entitled ***“Assessment on Implementation Process of Maternal Health Project on Emergency Obstetric Care and Neonatal Services in Rural Settings: A Case Of Uvinza District Council- Kigoma”*** in partial fulfillment of the requirements for the award of Master’s Degree of Health in Monitoring and Evaluation of Mzumbe University.

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DECLARATION AND COPYRIGHT

I, Haika Steven Kimambo, declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

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DEDICATION

I dedicate this dissertation to my mother Mrs.Edna Steven Kimambo, my husband Mr.Alphaxard Lugoye Lwitakubi and my lovely daughters Edna, Magreth, Giovanna and Nancy for their calmness, patience, efforts and encouragement in the course of my studies at Mzumbe University.

LIST OF ABBREVIATIONS

AMO	Assistant Medical Officer
ANC	Antenatal Clinic
BCC	Behavior Change Communication
BEmONC	Basic Emergence Obstetric Care
CCHP	Council Comprehensive Health Plan
CEmONC	Comprehensive Emergency Obstetric Care
EmONC	Emergence Obstetric and Neonatal Care
IEC	Information Education and Communication
MDG	Millennium Development Goals
MOHCDGEC	Ministry of Health, Community Development, Gender, Elderly and Children
NGO	Non-Governmental Organization
NPC	Non Physician Clinicians
TBA's	Traditional Birth Attendants
TDHS	Tanzania Demographic Health Survey
UNFPA	United Nation Population Fund
UNICEF	United Nations Children Education Fund
WHO	World Health Organization
WLF	World Lung Foundation

ABSTRACT

Background: Emergency obstetric care is one of the strategies for reducing the maternal mortality as pregnancy related complications are unpredictable. However, maternal death due problems related to unimproved comprehensive obstetric has been documented.

Objectives: The aim of this evaluation was to assess the implementation process more specifically on the community awareness with regards to emergency obstetric and neonatal care (EmONC). The goal of the project has been to improve maternal and child health age in a population by ensuring provision of quality health services by utilization of EmONC services by the community of Uvinza District Council.

Methods: The study was conducted in four villages of Uvinza district in Kigoma region. A cross sectional descriptive study was conducted involving 120 respondents. Semi-structured questionnaire was used to capture information related to implementation process of World Lung Foundation. The focus was collected information on several issues such as assessing the level of community awareness in accessing EmONC services, identifying the roles of traditional birth attendants and challenges encounter by health care workers in facilities providing EmONC services. Evaluator randomly selected the participants to be included in the study.

Results: The evaluation revealed institutional deliveries increased by 87.5% at CEmONC health centers, and 70% deliveries by caesarean section, the highest ever recorded. The level of community awareness in accessing EmONC services was high among the evaluation participants. Majority (87.5%) of the health care workers had received training supported by World lung foundation. The findings also revealed that traditional birth attendants have been undertaking early referrals of pregnant women to health facilities providing EmONC.

Conclusion: The issue of 3 Ds (Delay in decisions making when to seek care, Decision of earlier referral and Decision on what time to start treatment) all these cut across as limitations to achieve millennium development goal number 5. Findings revealed that the maternal mortality rate (MMR) in all facilities decreased by 44% between January 2011 and June 2013(WLF report, 2013). Furthermore, there was a 70% increase in institutional deliveries in Project-supported facilities compared to a 30% decrease in non-Project-supported facilities; there were increased awareness of community in accessing care to health facilities providing EmONC services.

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CHAPTER ONE

1.0 Introduction

This chapter introduces background information, description of the programme to be evaluated, the core strategies of the maternal health programme and the justification of this evaluation.

1.1 Background information

Emergency obstetric care refers to life-savings services for maternal and neonatal complications provided by skilled health workers (WHO, 2006). Since the beginning of the 1980's, several efforts have been intensified to improve maternal and child health status, by reducing the high mortality and morbidity. Emergency obstetric care is one of the strategies for reducing the maternal mortality as pregnancy related complications are unpredictable (Bhandari & Dangal, 2014).

Improving a country's standards of maternity care requires identifying what is needed. For needs assessment and project monitoring, the functioning of an Emergency Obstetric and Neonatal care (EmONC) facility is defined by the performance of each signal function at least once in three months (United Nations International Children's Emergency Fund [UNICEF], 2013). Globally, maternal and neonatal mortality remain important health issues for most developing countries including Tanzania and in some countries, annual declines in maternal mortality between 2000-2010 were above 5.5%, the rate needed to achieve the Millennium Development Goal under five (Hogan et al, 2012). One target under Millennium Development Goal 5 is to reduce the global maternal mortality ratio to less than 70 per 100 000 births, with no country having a maternal mortality rate of more than twice the global average (Hogan et al, 2013). According to (Musau et al, 2011) high number of maternal deaths in some areas of the world reflects inequities in access to health services, and highlights the gap between rich and poor. In sub-Saharan Africa the number of maternal deaths has increased from 23% in 1980 to 52% in 2008, substantially higher more than 280 deaths

per 100,000 live births in 2008 (Hogan et al, 2010). The maternal mortality ratio in developing countries in 2015 was estimated at 239 per 100000 live births compared to 12 per 100 000 live births in developed countries. For many decades, there have been substantial disparities not only between countries, but also within countries. The same disparities have been observed between women with high and low income, health facilities infrastructure and male dominance among communities living in rural versus urban areas (Musau et al, 2011).

World Health Organization (WHO) records that Tanzania has the fourth highest number of maternal deaths in sub-Saharan Africa and the sixth highest in the world (WHO, 2014). One of the MDG has been is to reduce maternal mortality to 193 maternal deaths per 100,000 live births by 2015. However, it was expected that this goal can be attained when maternal health services are provided through high skilled birth attendance provision of comprehensive emergency obstetric care in hospitals, provision of basic emergency obstetric care of health centre and dispensaries (Ministry of Health and Social Welfare, Sharpened One Plan, [MoHSW] 2014).

Over the last decades, there has been no doubt that high rate of maternal death is one of the major public health concerns in Tanzania. In most cases, maternal deaths are caused by factors attributed to pregnancy, childbirth and poor quality of health services particularly EmONC (MoHSW, 2014). There has been substantial evidence that that more than 80% of maternal deaths can be prevented if pregnant women access essential maternity care and assured of skilled attendance at childbirth as well as emergency obstetric care. For the decades the trends have shown that from 1961 to 1990 maternal mortality ratio in Tanzania has been on a downward trend from 453 to 200 per 100,000 live births (Mpembeni et.al, 2007). However, from 1990's there been an increasing trend to 578 per 100,000 live births (MoHSW, 2014).

Uvinza District Council was established in 2013/2014. The District has a total of 44 health facilities including the following; 35 dispensaries owned by the government, 5 health centers owned by the government, 2 Parastatal dispensary and 2 private dispensary. 38 government health facilities functioning and 2 government health facilities (Kalya dispensary, Ilagala dispensary) still on rehabilitation. Also the district is on process of establishing District Hospital from previous UNHCR hospital buildings located at Lugufu. World Lung Foundation health project in Uvinza District council aimed at decreasing maternal mortality through improved comprehensive obstetric care in the district, by implementing the intervention which has included upgrading the capacity of 2 health facilities (health centres) to perform obstetric surgeries, training of 4 non physicians in anesthesia emergency obstetric and neonatal care. The District record has high number of maternal mortality rate 6 deaths (85/100,000) (Uvinza Comprehensive council health plan, [CCHP] 2016/2017).

1.2 Description of the programme to be evaluated

1.2.1 Background information of the project

The Maternal Health Project of the World Lung Foundation (WLF) supports national efforts to reduce maternal and early neonatal death in Tanzania. The WFL has been working with Government of Tanzania and non-governmental partners to build capacity to provide high quality, safe and reliable comprehensive emergency obstetric and neonatal care (CEmONC) in government facilities. In total, 10 health centers and five hospitals have been upgraded throughout Kigoma, Morogoro and Coastal regions through the initiatives of this project. These facilities have been ensuring that more women in remote settings are able to access life-saving care, saving the lives of both women and their newborns (Darmstadt et.al 2005)

The Maternal Health Project has been operating on two basic principles. First, the decentralization of life-saving CEmONC services to the health centre level takes services beyond district hospitals which are often difficult (if not impossible) for women

to reach during an obstetric emergency and the second principle is to support “task-shifting” of advanced emergency obstetric care (including caesarean section) to highly trained Advanced Level Associate Clinicians (“non-physician clinicians”) such as assistant medical officers and nurse-midwives. In Tanzania, as in many countries of Africa, medical doctors are virtually absent in remote settings. In addition, equipping Advanced Level Associate Clinicians with the skills and supplies necessary to conduct CEmONC significantly expands the provision of essential services to women.

The success in decentralizing life-saving services was demonstrated by a 44% reduction of patient referrals from partner facilities to district hospitals, showing that women can be treated for complications safely and more quickly at lower level facilities, avoiding the often life-threatening delay in receiving treatment.

1.2.2 World Lung Foundation Maternal Health Project background

Since 2006, The World Lung Foundation has supported the reducing maternal mortality in Tanzania project, aimed at decreasing maternal mortality through improved comprehensive obstetric care in Kigoma region. The project implements the intervention which includes upgrading 2 health centers to perform obstetric surgeries as well as training over 15 non physicians clinicians in anesthesia and emergency and neonatal care (EmONC), (Reducing Maternal Mortality in Tanzania report, 2015)

World Lung Foundation serves as a resource on CEmONC to Government of Tanzania at district, regional and national levels as well as to other NGOs. Beginning in 2013, the CEmONC care, the Maternal Health Project expand and deepen its efforts to include family planning (FP) and comprehensive post-abortion care (cPAC) through a partnership with Engender Health. In the new phase of work, health providers in partner sites will receive training in long-term and permanent methods of FP and provision of PAC services. In addition, Engender Health will expand coverage of the comprehensive package (CEmONC, FP and cPAC) to additional health centers in Kigoma, one of the most under-resourced regions of Tanzania.

This will put Kigoma on track to exceed the goals for establishing EmONC in at least half of its health centers as stated in the “One Plan” – Government of Tanzania’s Roadmap to Accelerate the Reduction of Maternal, Newborn and Child Mortality.

1.2.3 Core Strategies

Decentralization of life-saving skills from hospitals to health centers

Saving the lives of pregnant women requires accessible and affordable CEmONC services. According to the 2011 Demographic and Health Survey (DHS), the major perceived barrier to women’s access to health services is lack of money (24%), followed by distance to a health facility (19%). Access to care is felt most acutely by rural women, and women with no education or in the lower wealth quintiles, among others (DHS, 2011).

Establishing services in remote areas is challenging, however, for several reasons: it is extremely difficult to recruit and retain medical personnel (particularly doctors) in hard-to-reach facilities; long-distances make the continuous and dependable supply of drugs, equipment and consumables uncertain; and, the transport demands of reaching remote areas increases the costs of building and renovation, providing on-going maintenance, and conducting supervision.

The Maternal Health Project has made a significant investment to build and/or renovate operating theatres and wards, procure and deliver equipment and supplies, and ensure maternal health medicines are available in its partner facilities. Across Tanzania, stock-outs of medicines and supplies are a frequent occurrence, and the Project has tried to support emergency requests whenever possible. In Uvinza District Council funding has also been provided to build housing for several staff at each partner facility. This has proven to be an effective, cost-efficient non-financial incentive to retain health workers.

WLF works closely with members of the Council Health Management Teams in the district, encouraging the allocation of Council funding for CEmONC: facility upgrades, housing, equipment, hiring of health workers, provision of supportive supervision, and supplies and commodities. Leveraging government revenues for CEmONC is an on-going challenge, however, given limited disposable revenue at and competing demands for these resources.

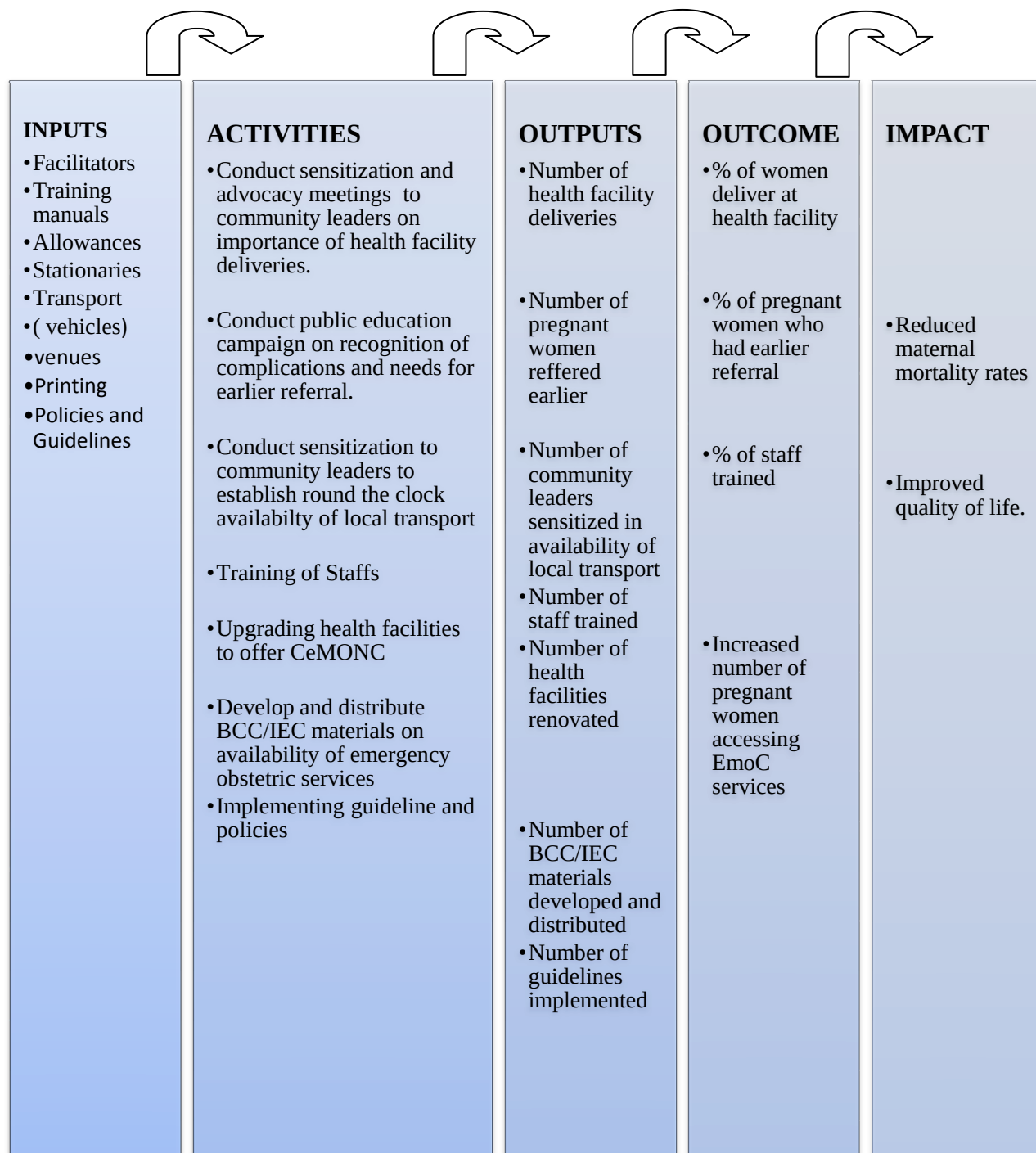
1.2.4 Task-shifting of CEmONC surgery and anesthesia to mid-level providers

Tanzania, like many countries across Africa, faces a severe shortage of qualified health workers. The acute shortage of qualified health workers is most evident at lower level facilities and in more remote areas. Nationwide, there is a 55% deficit in nurse/nurse midwives posted, and a 46% deficit in AMOs. Even these averages conceal considerable variation (and hence advantage/disadvantage) within regions and within even districts (THSA, 2010). There are only 15 MD anesthesiology specialists (medical doctors), about 60 AMO-anesthesiologists, and about 180 nurse-anesthetists serving a population of 42 million of people (Omar & Bergstrom, 2013).

Assistant Medical Officers (AMOs), Nurse Midwives (NMWs), Clinical Officers (COs) and other Advanced Level Associate Clinicians are on the front-line of saving lives in rural areas. They typically work in extremely difficult circumstances characterized by overwork, limited physical infrastructure and supplies, and sub-optimal living and working conditions. The Maternal Health Project focuses on upgrading the skills of these clinicians through competency-based training of AMOs in caesarean section, and training for NMWs and COs in safe CEmONC anesthesia. Practical workshops, a robust mentoring scheme, continuous medical education, and regular phone communication provide clinicians with on-going learning and support.

1.2.5 Programme Logic Model

In the views of Rush and Ogborne(2000),logical model is a diagrammatic representation of a program. A logic model depicts relationships between the main activities, or components, of a program and associated goals, objectives, indicators and resources. The logical model of Emergency obstetric services program in health facilities shows the different inputs secured to provide the service; activities to be performed to get the intended output; the output from the activities performed and the expected immediate and long run effects. WLF aims to create a culture of high quality, respectful care where providers working in difficult circumstances get the support they need to perform to the highest standards, and all parties are accountable for saving women's lives. Investing continuously in the people who provide the care – the AMOs, NMWs and COs – is the cornerstone of the work.



1.2.6 Program Stakeholders

Stakeholders are those who are influenced by and exert an influence on those things take place in the project entity directly or indirectly (Rwechungura, 2010). Kigoma is amongst the three regions which are supported by World Lung Foundation (WLF), The foundation has supported the upgrade and building of nine health facilities in the Kigoma region and has trained 106 Non-Physician Clinicians (NPCs) in Comprehensive Emergency Obstetric and New born Care (CEmONC) across Tanzania. Working across five districts including Uvinza district council, WLF has helped to upgrade a further nine facilities, including six health centers, to become CEmONC service delivery facilities. These facilities include health centers in Ujiji, Nguruka, Kakonko, Mabamba, Nyenge, Buhingu and three hospitals in Maweni, Kibondo and Kasulu(WLF, 2014).

During the stakeholder's analysis, regional health bureau which was conducted on 14th September 2014, World Lung Foundation (WLF) joined over a hundred community and government health leaders and advocates at a meeting convened by the Government of Kigoma to coordinate maternal health activities and to identify gaps in the region and particularly at community levels. Maternal health project in Uvinza district council is aimed at advancing the district efforts in meeting Millennium Development Goal 5: reducing maternal and infant mortality.

Key stakeholders in maternal mortality reduction are MoHCDGEC Tanzania, Kigoma region administrative secretariat, Uvinza District Council, Private sectors, non-governmental organizations (NGO's), and the communities. International stake holders include WHO, UNDP, international organizations, Universities and research institutions among others.

Table 1.1 Stakeholders Assessment and Engagement Matrix

Stakeholder	Role in the Program	Interest or Perspective on evaluation	Role in the Evaluation	Mean of Communication	Level of Importance (H, M, L)
Community (women of child bearing age/ traditional birth attendants/ health care workers	EmONC services beneficiary	Effectiveness of the maternal project demonstrated by reduction of maternal mortality death , health care seeking attitude improves within the entire community	Respondents in the evaluations (provide information required to inform the evaluation)	Meetings Interviews through self-administered questionnaire	Medium
Uvinza District Council	Implementer and owner of Emergency obstetric care programs Financial support for Health care workers Capacity building	Effectiveness and efficiency of health facilities conducting EmONC services.	Support the evaluation team with essential needs. Users of final report for improving the program Provide the necessary documentation (reports, plans, policies)	Email Teleconference Official letters Meetings	High
WORLDLUNG FOUNDATION	Provide policies, strategic guidance in EmONC Identifying the gap in the implementation of EmONC program	Efficiency and effectiveness	Use of findings	Tele-conference Emails	Medium

1.3 Statement of the problem.

Over the past decades, literature has demonstrated that emergency obstetric care is one of the strategies for reducing the maternal mortality as pregnancy related complications are unpredictable. The challenge of maternal deaths due complications related to pregnancy has been documented in Tanzania (TDHS, 2012).

In Kigoma region, the challenge related to maternal deaths has been in persistence over the decades. Despite the fact that Kigoma has managed to reduce maternal mortality to lower than the national level, Uvinza district remain facing the big challenge. Reports have shown that there were 4628 (30%) and community deliveries 23149 (14%) with 7 and 5 facility and community maternal deaths respectively in the district in 2014/2015 (Uvinza CCHP, 2014)

In addressing these challenges, World Lung Foundation upgraded health facilities and facilitated training to health staffs on obstetric surgeries to help remote communities to access health care services easier. However, maternal deaths have continued to be one the public health challenges in the district. This evaluation therefore intended to assess the level of awareness among community on emergency obstetric and neonatal services. In addition, the roles of traditional birth attendants on emergency obstetric and neonatal care services were assessed as well as potential challenges encountered during implementation of EmONC services.

1.4 Evaluation Questions

1. What strategies are being used to create community awareness on accessing EmONC services?
2. What are the roles of Traditional birth attendants to ensure access of community to EmONC services
3. What are the challenges in the implementation EmONC services to Uvinza District Council health facilities?

1.4.1 Goal

The goal is to improve maternal and child health age in a population by ensuring provision of quality health services by utilization of EmONC services by the community of Uvinza district Council.

1.4.2 Main Objective

To assess the implementation process of emergency obstetric and neonatal services in rural settings by World Lung Foundation Project in of Uvinza district council.

1.4.3 Specific Objectives

1. To assess the level of awareness among community on emergency obstetric and neonatal care services in Uvinza District Council.
2. To assess the roles of traditional birth attendants' on emergency obstetric and neonatal care services Uvinza District Council.
3. To assess the challenges encountered during implementation of EmONC services in Uvinza District Council health facilities.

1.5 Significance of the Evaluation

Efforts to reduce maternal mortality in Kigoma are impeded by major challenges including a shortage of staff particularly the Assistant Medical Officers and skilled nurses. In addition, inadequate resources, and women coming late to the facilities contributes significantly in limiting the efforts towards reduction of maternal mortality. This is why Uvinza district has been a major focus of World Lung Foundation Maternal Health Program's efforts for the past five years. Uvinza district council is one of the districts where emergence obstetric care interventions are implemented to reduce maternal mortality rates. , Being the first district to implement maternal health program in the country; this evaluation report generate information which other districts with the same project would acquire to improve the quality of life and reduce maternal mortality rate in the country as a whole.

Since all pregnant women are at risk of obstetric complications (hemorrhage, sepsis, unsafe induced abortion, hypertensive disorders of pregnancy and obstetric labor), earlier access to emergency obstetric care (EmONC) is perceived to enhance vast

majority of maternal deaths to be avoided. This calls for promptness when it comes to access to emergency obstetric care as it should be central to any efforts in reducing deaths among pregnant women. Despite a number of global and national efforts to improve women's health, death of women during child birth remains an unresolved challenge in many developing countries, including Tanzania. Some estimates indicate that at least half million women die from pregnancy related causes (The World Bank report, 2007). This evaluation aimed to assess the implementation process (current practices and outcomes in project supported facilities) that provides EmONC services in rural settings in which mainly discover the core issues which address the reason for existing maternal deaths from both health facilities and community deliveries despite the fact of presence of facilities offering EmONC services. Furthermore, the evaluation intended to assess community awareness on access to emergency obstetric care targeting women of reproductive age 15-49 years and has been set to be conducted in Uvinza District council in Kigoma Region.

Evaluating community awareness on seeking emergency obstetric care services is an important part of understanding the barriers for poor utilization, hence design mechanisms that allow women with pregnancy complication to easily access care they need in affordable means. This evaluation generates the core roles of traditional birth attendants in the community they save in reduction of maternal and neonatal deaths. Furthermore, came up with challenges faced by health workers in implementing EmONC services despite the fact of upgraded facilities to provide EmONC services.

The evaluation report generate inputs that allow policy makers to make evidence based decisions on implementation of earlier seeking care to emergency obstetric services in reducing maternal mortality rates at community level. The findings direct stakeholders on which investments, area of improvements are needed to further the EmONC programs. Therefore it is important to conduct this evaluation in the study area to evaluate the outcomes for World Lung Foundation Strategies in collaboration with the

Uvinza district council how both has reached on achieving millennium development goals number 4 and 5.

Finally, the evaluation enabled the evaluator to attain a Master of Science in Health Monitoring and Evaluation. It is an essential requirement to undertake evaluation of a program of your choice as partial fulfillment criteria for acquiring the said qualification. This is the main significance of this evaluation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter will present the literature review to elicit what other people have written about community awareness and access to emergency obstetric and neonatal care in rural settings. Through this presentation of literatures the gap existing in the earlier access to EmONC services will be highlighted. Any gaps that exist in the interventions will be addressed by this evaluation in manner that will improve the access to EmONC services in the local government and beyond.

2.1.1 Emergency Obstetric care services in Tanzania

Data from TDHS (2012) presented that lack of money (40%) poor infrastructure (38%) unfriendly attitude of health care workers (14%) are the major barriers most women perceive in accessing specialized health services, hence high rate of home deliveries in Tanzania, Furthermore, poor referral system, inadequate skilled attendants and lack of frequently medical supplies also contributes to home deliveries. In addition socio-cultural and gender inequalities in decision-making increase the high rate of home deliveries(TDHS, 2012).

Evidence shows that timely referrals and appropriate health infrastructure with qualified health personnel greatly reduce maternal mortality rates and disabilities. In many countries of sub-Saharan Africa, women suffer to have access to skilled delivery, existing high prevalence of maternal illnesses, obstructed labor, haemorrhage, pre-eclampsia and eclampsia and other potentially devastating complications have generally been linked to their poor access to emergency obstetric services. In developed regions almost 100% of deliveries are attended by skilled health personnel(The Millennium Development Goals Report, 2008).

For Kenya, (Eastern African region) the situation is more worse whereby only 34% of deliveries are attended by skilled birth attendants compared with 41% in western Africa., 536,000 maternal deaths are estimated to occur worldwide in 2010, and the developing countries accounts for 99% (533,000) and more than half (270,000) occurred in the sub Saharan region alone. (Zahr et al, 2012).

Literature establish that numerous factors are contributing to maternal mortality, most occurs between the onset of obstetric complication and its outcome, and the outcome is adversely affected by delayed treatment. It was revealed that 3 factors that complicate the outcomes are (1) delay the provision of adequate maternal care (2) delay arrival to a health facility (3) delay in seeking. Distance and cost are the major obstacles in earlier decision to seek maternal care. The community perceives the quality of care is more important rather than cost. Health services is shaped by variables such as socioeconomic status and gender (Campbell et.al 2010)

It happens that pregnant women who seek care earlier might still experience delay in receiving care, because the accessibility of EmONC facilities is an acute problem in the developing countries, in remote rural areas, pregnant women with obstetric complication may find a nearest health facility where no necessary resources exist, shortage of qualified staff, essential medicines and supplies, tailored with administrative delays and clinical mismanagement highly associates with maternal deaths. With the scarcity of resources we have, priority allocation remains as the gold standard measure for reduction of maternal deaths. Decentralization of obstetric surgeries including upgrading of health facilities, training of health care providers are the best contributors in reducing home deliveries. Though community sensitization and mobilization on importance of earlier seeking of care, decision making in seeking care and referral has to be emphasized frequently.

2.1.2 Conceptual model of evaluation

Conceptual model of the evaluation is a diagrammatic presentation of gap between program plan and output in the EmONC program, then identification of the problem with each program component, next solution to address the problem by using the result of evaluation, and what you expect after execution of the solution in improving the program. This conceptual model of evaluation depicts the different components of EmONC program and the possible outcomes of the program if it goes as it is planned. Diagram indicates the relationship of different program components and how one affects the other.

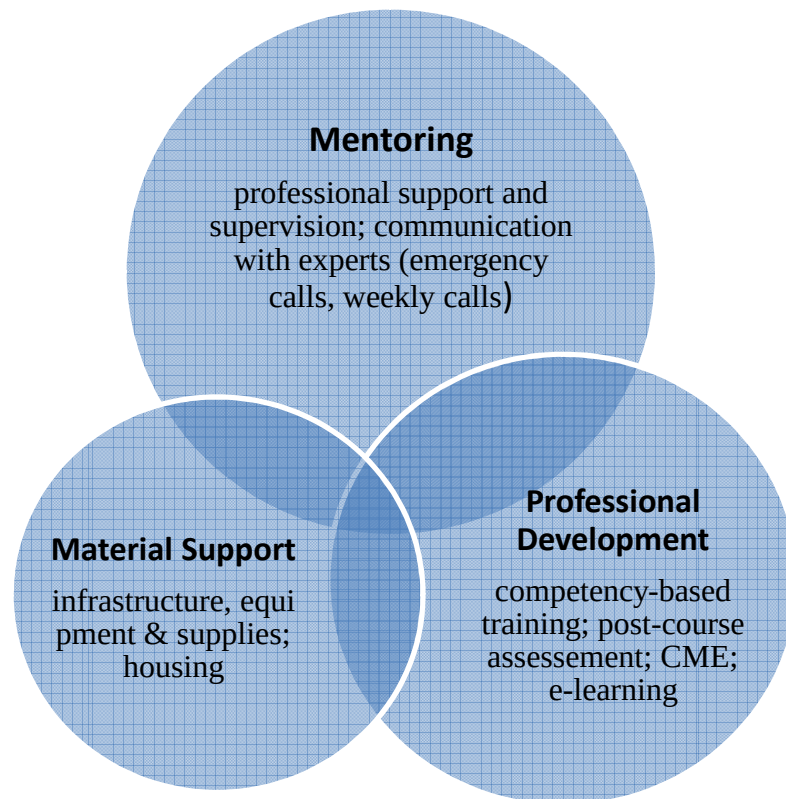


Figure 1.1: Conceptual model for evaluation (Adopted and modified from World Lung Foundation model)

2.1.3 Professional Development

Competency-Based Training

Between 2007 and 2013, the Maternal Health Project trained one hundred and six (106) AMOs, NMWs and COs in CEmONC.

Activities conducted during AMO training:

- CEmONC surgery: spontaneous vaginal deliveries, breech deliveries, repair of cervical and perineal tears, vacuum extractions, caesarean sections, laparotomy for ruptured uterus (repair or subtotal hysterectomy), and laparotomy for ruptured ectopic pregnancy, manual removal of placenta and evacuation of inevitable abortion.
- CEmONC anesthesia: spinal anesthesia, intubation of adults for general anesthesia, administration of general anesthesia using ketamine, and resuscitation of newborns.

An analysis undertaken in 2013 of the PCAs and the initial training course highlighted the crucial role of active problem-based learning under close supportive supervision of an expert OB/GYN. WLF's continuous medical education and training workshops are guided by the following recommendations arising from the analysis:

1. Emphasize problem-based, practical teaching and learning and reduce theoretical training.
2. Expand close supportive supervision during the training time.
3. Re-consider the time period of training to reflect the needs of trainees for mentoring and supportive supervision by experts.
4. Ensure trainees will return to fully functioning CEmONC facilities so training costs and human resources are optimally used.

2.1.4 Continuous Medical Education (CME)

Skills Workshops

The analysis on the strengths and weaknesses of WLF's four-month initial training and the PCAs pointed the distinct need and appreciation for practical on-site skills development. As such, highly focused and practical skills-workshops are organized on priority issues of clinical care including topics that arise from site visits which capture key clinical information on a routine basis, emergency calls and weekly calls.

Mentoring

Supportive Supervision

Mentoring through supportive supervision is a pillar of the Maternal Health Project. Over time and working closely with Project partners, the senior specialists have created an environment that neutralizes the traditional hierarchies which dominate the medical field, opening up dialogue and learning. Teaching is focused on overcoming real-life clinical challenges through a team based approach, devoid of judgment or punitive action.

The Project uses three avenues for supportive supervision:

- Specialist OB/GYNs who spend approximately three to four days in each health centre to do team-based practical training. This is a team-based approach to case management, focusing on incoming emergencies and case studies that provide critical learning opportunities for providers. It involves all available maternal health staff of the facility: AMOs, NMWs, COs and others. When there are not cases to manage, the specialists discuss with the maternal health team the obstetric challenges they have faced. Increasingly and as time on-site permits, the specialists are also giving lectures using the laptop provided to each facility on clinical topics of priority relevance and examine possibilities for simulations using models.

Over time, the Project has found that the hospitals to which partner health centers refer, have not necessarily had the opportunity for focused skills-development and as such, also need significant training and support. In recognition of this gap, the Project's specialists also spend several days at the hospitals to which Project partners refer women with obstetric emergencies.

Project supported Regional Program Officers (RPO) and Deputy Regional Program Officers (D-RPO) conduct monthly support visits to each partner facility for clinical and management support. The RPO/D-RPOs are an important asset providing continual support to health workers, helping to maintain standards at the facilities, and advocating for the Project at the district and regional levels.

WLF staff based in Dar es Salaam who travel to facilities to assist with procurement, installation and maintenance of equipment; delivery of emergency supplies and commodities; and ICT support

E-learning

The Project has begun to develop an e-learning platform for health providers working in WLF partner sites. The new 'virtual classroom' will enable providers to access clinical instruction in lecture format (publications and presentations), through instructional videos and training modules, forums on clinical topics of concern and interest to providers, posting job-aides, and through an intra-net email communications hub. The Project works closely with the Division of Telemedicine in the Ministry of Health and Social Welfare on this pilot effort with an eye towards potential replication in other regions.

WLF experts will be able to support clinicians in remote settings through specially designed training posted on the platform as well as through 'real-time' conversations as bandwidth allows. Among clinicians at partner sites, the platform will enable the exchange of experiences, questions and comments on a regular basis.

Each health facility participating in the Project has been equipped with a laptop computer. The Project's focal person at the site oversees use of the laptop for data entry and analysis, managing compilation and sending Monthly Monitoring Templates (MMTs) to the WLF office in Dar es Salaam, and soon, the e-learning.

Tele-medicine

In addition to the e-learning platform, WLF is developing tele-medicine capability through which the Project's Clinical Directors will be able to assist clinicians in 'real-time', on line. This will enable AMOs, NMWs, COs and other health providers in isolated settings to get the advice and support they need during an obstetric emergency, improving the chances of women to survive childbirth and without severe morbidities.

Communication with experts

Extensive mentoring is conducted by cell phone to bridge the significant distances between facilities and Dar es Salaam. For an example at Nguruka Health facility among the upgraded facility in offering CEmONC service, during operating procedures only if the clinicians fails to attempt a certain complicated condition, they usually consult senior obstetric and gynecological specialist in Dar es Salaam for further consultation on how to manage a pregnant women via telephone. This is done both through regularly scheduled calls as well as emergency back-up provided by Project specialists (Clinical Directors, RPOs and D-RPOs):

- Weekly conference calls are convened by the Project office in Dar es Salaam, connecting partners in all the sites (health centres and hospitals) to engage in cross-learning and case management. One of the Project's senior OB/GYNs is on the call to serve as a resource and mentor. The weekly calls also serve to get updated information on the staffing levels of facilities, which in turn, enables the Project to work directly and quickly with local Councils to fill human resource gaps that could disrupt CEmONC care.
- Emergency calls are taken by the Project's senior specialists to assist clinicians facing a complicated situation they feel warrants expert advice. The Project's

Clinical Director initiated the process in 2013 with a pilot group of health centres, actively encouraging the health workers to reach out when need arises, building trust and confidence that senior specialists welcome such calls. Providers in WLF partners sites have responded, calling the Clinical Director for assistance with, among other emergencies: severe pre-eclampsia and eclampsia; fetal distress; burst abdomen; complicated delivery of twins; and, retained placenta among other difficult cases.

2.1.5 Material Support

WLF has built and renovated structures to enable safe and quality CEmONC to be done in difficult and hard-to-reach settings. Investments have been made to build operating theatres, delivery and post-partum wards, and staff rooms in facilities. Similarly, staff housing has been built at many of the Project sites as a key incentive to retain the health workers trained and mentored through the Project. In order to ensure services are available on a continual basis, the Project procures and delivers maternal health medicines, supplies and commodities particularly in situations of severe and life-threatening stock-outs.

To optimize Project investments in human resource strengthening and upgrading of facilities, the Government has committed to placing a suitable health worker to perform CEmONC in WLF partner facilities. This anchors Government's commitment to CEmONC in the crucial component of ensuring skilled health workers for delivery care..

CHAPTER THREE

EVALUATION METHODOLOGY

3.1 Introduction

This chapter describes the methodology used for this evaluation and presents the evaluation design used, the evaluation site (area), data collection methods used and sampling and sampling procedures used, data management and analysis procedures adopted in the evaluation.

3.2 Description of the Evaluation Area

Uvinza District

Uvinza District Council is one of the eight councils in Kigoma Region. The district has total area of 16,603sq km of which 6,425sq km is under water (mainly Lake Tanganyika and small lakes of Nyamagoma, Sagara, Malagarasi Lwegele, and Luiche and the remaining 10178 sq km is a dry land. Uvinza district council is potentially covered with Lake Tanganyika which stretches from North West to Southern part of the Council (280km)(Uvinza CCHP, 2016/2017).

Administratively, the district is divided into 3 divisions, 14 wards and 45 registered villages with 232 sub-villages. The district is estimated to have a total number 42 of health facilities. According to the National Census and Settlement of 2012, Uvinza district council has population of 383,640 whereas more than 50% are females.. The population annual growth is estimated at 4.1%. The district has suitable environment with economic activities. The main economic activities being agriculture, livestock keeping, fishing and business. The main agricultural crops grown are tobacco, palm trees, maize, beans, sun-flower, cassava, paddy and other legumes (Uvinza CCHP, 2016/2017). The climate of the district is mainly divided into two zones, the highlands comprising of mountains, hills and the low Lands zone and Lake Tanganyika gives positive influence on rainfall pattern and distribution.

The evaluation area was selected not only because it had highest number of maternal death and but also the maternal project covers remote areas along Lake Tanganyika Shore. For example, at Buhingu health facility referring a pregnant women for obstetrical surgery it took 18 hours by simple wooden boats, and was a convenient place for collecting appropriate information regarding maternal health project, also reduces costs following financial constraints.

3.3 Evaluation Approach

A formative evaluation was conducted to assess the ongoing implementation process of World Lung Foundation maternal health project activities in order to provide information that could be used for improvement on EmONC services and ultimately contribute to the reduction of maternal mortality rate in Uvinza district. According to Patton (2012), formative evaluation is carried out in order to understand what is going on with the implementation of the program, to find ways and make recommendations on improving the program outcome. Thus, the choice of using formative approach enabled the evaluator to assess the level of awareness among community, roles of traditional birth attendants and challenges encountered during implementation of EmONC services.

Household simple random technique was conducted in the study area, for collection on socio demographic characteristics; assess the level of awareness among women of childbearing age range from 15-49 years and traditional birth attendants. Self-administered semi structured questionnaire was given to health care providers.

3.4 Evaluation Design

A cross-sectional descriptive evaluation design employing quantitative method was used. The choice of this design was based on the fact that the evaluation intended to collect information, one point at a time and yields important information. For the purpose of this study, community and facility based multiple case studies of quantitative nature was carried-out to evaluate World Lung Foundation program towards its focus of

expanding access and utilization of comprehensive EmONC service provision in the district.

3.5 Evaluation Period

This evaluation was conducted at Uvinza districts particular in Nguruka, Buhingu, Ilagala and Kazuramimba health facilities. The evaluation population was women of child bearing age, traditional birth attendants and health care providers. The evaluation period started soon after receiving the letter for approval of data collection from February 2016 up to June 2016.

3.6 Scope of evaluation and dimensions

As the maternal mortality continues to be increasing throughout developing countries of the world, it is believed that creating community awareness on access of EmONC services would lower the burden for maternal deaths (Fantahun, 2005). Generally, quality of EmONC encompasses a wide range of issues including technical competence, skilled staff, improved infrastructure, availability of necessary resources, and constellation of services. More important, technical competence encompasses the level of training of the service providers and how they are doing in accordance with the national guideline.

3.7 Units of analysis

For the purpose of this assessment, the unit of analysis involved 120 respondents from selected health facilities and villages in Uvinza District Council, against the earlier target of 140 being a short fall of 20. The evaluation units were 40 women of child-bearing age (15-49 years), 40 traditional birth attendants and 40 health care workers living in the four villages at the time of the data collection. They were obtained through random selection of the first house in the village, followed by the next house to the right until the required sample was attained. Health care workers were found at their working places.

3.8 Variables and their measurements

In this evaluation study, a number of variables involved and their measurements are:-

Independent Variable	Measurements	Source of Data
World Lung Foundation (WLF) program performance	• What are the specific objectives of World lung foundation (WLF)? • Does the community aware of emergency obstetric services? • What were the roles of traditional birth attendants in emergency obstetric services?	Interview with community accessing EmONC services and traditional birth attendants.
Challenges encountered by health care providers	• What are the general problems have you been encountering in your daily operations? • What do you think hinders effective adherence of EmONC standards in your facility? •	Interview with health workers
Improvement measures	• Do you think the mentioned challenges on EmONC performance can be eliminated? • What do you think should be done to reduce maternal deaths through EmONC services	Interview with health workers
Dependent Variable		
Reduced maternal mortality rate by increasing health facility delivery.	• Number of women of child bearing age range from 15-49 years delivers their babies at health facilities with skilled health care providers. • Traditional birth attendants identify their roles hence refer their clients earlier to health facilities.	DHIS book 12 (delivery book)

Source: Researcher's Own Construct, 2016

3.9 Population and Sampling

3.9.1 Sample size and sampling technique

An optimal sample is the one which fulfills the requirements of representativeness, reliability and flexibility.

Sampling is the act, process or technique of selecting suitable samples or a representative part of a population for the purpose of determining parameter or characteristics of the whole population (Kothari, 2010).

3.9.2 Sample size for this evaluation was 120 participants. The selection took into account the issue of representation of the sample in order to be able to generalize the results to the target population.

3.9.3 Sampling Techniques:

The evaluation area was stratified into two socio-geographical strata from which villages were randomly selected to represent a particular terrain. The two villages namely Kazuramimba and Ngurukawere selected to represent plain arid dry land while Ilagala and Buhingu villages represented fertile land located along Lake Tanganyika shore with regular rainfall throughout the year. The essence of selecting these villages based on the climatic conditions aimed at getting the views of participants from different experiences of socio-economic backgrounds. In addition, the presence of active village health workers in the village was an important criterion to ensure that adequate and appropriate number of women of reproductive age and traditional birth attendants were obtained.

3.10 Inclusion and exclusion criteria

Inclusion criteria for exit interview: The evaluation target women of bearing age (15-49 years), health care workers (Clinicians and nurses) who work in Uvinza District council health facilities, community members served within nearby health facilities and traditional birth attendants.

Exclusion criteria for exit interview: All women less than 15 years of age were excluded in the evaluation

3.11 Types and sources of data

In this evaluation, both primary and secondary sources of data were used to solicit information in order to answer the evaluation questions.

3.11.1 Primary data

In the evaluation, the evaluator collected the raw data from the field in order to answer the evaluation questions. Primary data was collected by administering questionnaires to respondents. This method was used in order to gather the necessary data and also to provide profound insight into the topic.

3.11.2 Documentary Review

The secondary data was collected from different websites, reports, books, journals, and newspapers. In this evaluation client satisfaction, availability of resources and technical competence was assessed. Different dimensions of quality EmONC service was considered to make the evaluation comprehensive.

3.12 Data collection methods

Three different questionnaires as data collection tools were developed for data collection. The first questionnaire was for women of child bearing age range from 15-49 years, the second questionnaire was for the traditional birth attendants and third one was for the health care workers. For questionnaire used, it has an introduction that was intending seek consent from the evaluation participants. The principal evaluator enrolled four data collector who assisted the whole process of data collection. Prior to data collection, evaluator assistants were trained for one day on how to collect data according to the evaluation objectives. A list of names for traditional birth attendants was attained from health facilities, with an aid of health village workers. They visited in their homes for interviews. Each form had an individual study identification number and respondent were interviewed in a secluded place to ensure confidentiality. Health care workers were given a self-administered questionnaire. On average it, took approximately 20-30 minutes to fill in one questionnaire. At the end of each day, the questionnaires were checked for errors and incomplete filling. These were corrected and where not possible follow-up visits were made to inquire for the precise responses.

3.12.1 Data management and analysis

Validity and Quality control

In order to ensure reliability and validity of data, prior to data collection there was a discussion with data collectors to have common understanding about the tool and the kind of information that were needed to answer the evaluation questions. Data cleaning was done during data collection period and then data were re-checked every evening to ensure completeness and where possible addressing any missing information. The validity of data generated for this evaluation was ensured through comprehensive scrutiny of women of child bearing age, traditional birth attendants and health workers data by the evaluator.

3.14. Data management and analysis methods

Data entry was applied through designing an excel workbook. This was considered by the evaluator as a necessary step required organizing data using quantitative method with assistance of STATA software pack 13. After the completion of questionnaires, data were coded, examined, compared and categorized based on the evaluation questions. Throughout the analyzing process, comparison has been done to find differences, similarities and meaning. Based on the respondents of this evaluation, each category of respondents had its own database in STATA software. Categorical data were analyzed using cross tabulation to associate to variables of the study. Data were analyzed in descriptive statistical methods like tabulation, percentages and frequencies for presenting and interpreting of data.

3.15 Ethical issues

Permission to conduct evaluation was obtained after the approval letter from Mzumbe University. The evaluator circulated the approved letter to Regional Program Officer of WLF-Kigoma and Uvinza District Medical Officer (DMO). The District Health

Secretary of Uvinza district granted the permission through introductory letter to collect from community and health facilities within the evaluation site.

Each respondent was fully and clearly informed about the aim of the evaluation. Data management and storage were ensured first and foremost by the data collector assistants for confidentiality. Data collection instruments for the purpose of this evaluation did not constitute personnel identifiers such as respondent's name. Signed consent was sought from participating communities and health care workers involved in the evaluation prior to implementation. Their participation was voluntary among the participants. Respondents were informed about their willingness to participate, for those who were unable to read or write were asked to put a thumb print, and questionnaires for TBAs and women of child bearing age was translated to Swahili.

CHAPTER FOUR

PRESENTATION FINDINGS

4.1 Introduction

This chapter presents the findings based on the evaluation objectives. The general objective of this evaluation was to assess the implementation process of emergency obstetric and neonatal services in rural settings by World Lung Foundation Project in of Uvinza district council. The specific objectives were (i) to assess the level of awareness from women of child bearing age (ii) identify the roles traditional birth attendants and challenges faced by health care workers in implementing CEMONC. Evaluation findings are presented as follows: - the findings starts with the characteristics of respondents followed by a presentation of data according to specific evaluation objectives.

4.2 Characteristics of respondents

In this evaluation, 120 respondents were enrolled. The target was to enroll 140 participants but only 120 were able to return the questionnaires.. Of the 120 respondents 60% were married with age ranging from 15-25 years. Intentionally, the evaluator considered age categories in this evaluation in order to assess how community is aware on complications accompanied with earlier pregnancy hence importance on CEmONC services. In addition, the findings shows that 45% of the selected respondents had secondary education, 50% had certificate (primary school level) and 5% had diploma. From these findings, it can be concluded that, half of the respondents enrolled had good education capable to assess services provided by CEMONC health facilities. With regard to the age of the respondents, data reveal that sixty percent (60%) of the selected respondents had an experience assessing CEMONC services at the World Lung Foundation upgraded health facilities. However,35% had age which ranges from 26-35 years in which at remote settings this is the age more affected by obstetric complications.

According to TDHS, 2010 it is evident that access to appropriate health care including skilled birth attendance at delivery and timely referrals to CEmONC services can greatly reduce maternal deaths and disabilities. The combination of the respondents' education and age was vital for this study, this produced respondents with justifiable experience in assessing community level of awareness in CEMONC services.

Table 4.1: Demographic characteristics of the respondents

Socio-demographic characteristics of respondents			
Variable	Category	Frequency (40)	Percentage (%)
Age	15-25 years	24	60
	26-35 years	15	37.5
	36-45 years	1	2.5
	45- 55 years	0	0
	50-60 years	0	0
Marital status	Married	16	40
	Single	10	25
	Single present	7	17.5
	Widower	3	7.5
	Divorced	4	10
Education level	Secondary education	18	45
	Certificate	20	50
	Diploma	2	5
	Degree and above	0	0

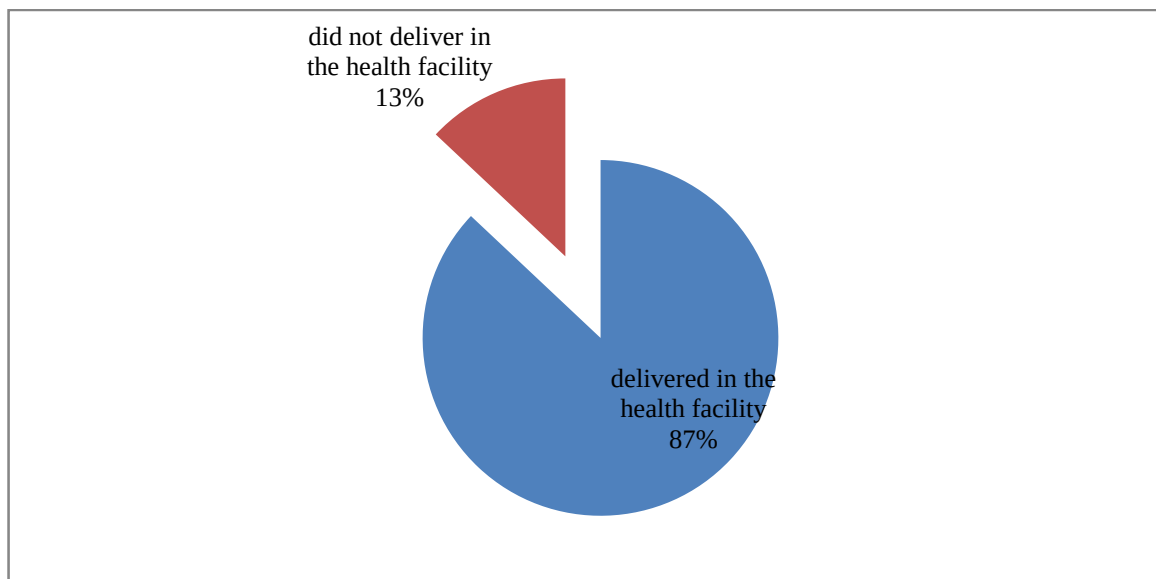
Source: Field Data,2016

4.3 The level of awareness among community on emergency obstetric and neonatal care services.

Evaluator questioned the respondents on level of awareness among community on emergency obstetric and neonatal services. The findings from evaluation indicate that more than half of the respondents (87.5%) reported to have delivered in the health facilities. The main reason mentioned by the respondents was that, the process of upgrading health facilities by WLF provided the CEmONC services.

The findings are in line with those of Campbell, &Thalancet (2012) who revealed that differential use of health services often shaped by the level of education and knowledge implanted in that particular society.

Figure 4.1: Women delivery at health facility/women who did not delivery at health facility in Uvinza District by Jan-Dec 2015



Source: Field data, 2016

Furthermore, as illustrated in Figure 4.1, only 87.5% of estimated births occurring in Uvinza District Council from January –Dec 2015 took place in facilities designated for delivery care. Thus, over half of all deliveries are estimated to have occurred at health facilities with skilled obstetric care that provided EmONC or CEmONC services. The overall number of institutional deliveries increased following increased level of awareness among community. However, presence of skilled personal and upgraded facilities contributed to increased facility delivery.

Table 4.2: Level of awareness among community on emergency obstetric and neonatal care services (EmONC)

Knowledge on EmONC	Category	Responses	
		N	Percent (%)
How many ANC attended	Once	18	45
	Twice	22	55
	Thrice	0	0
	Fourth	0	0
Place of last delivery	Home	3	7.5
	Clinic	35	87.5
	TBA	2	5
Assisted last delivery	TBA	2	5
	Medical doctor	0	0
	Nurse	35	87.5
	Village Midwife	3	7.5
From whom you seek medical care	Traditional midwife	0	0
	Village Midwife	5	12.5
	Nurse	35	87.5
	Other	0	0
Danger signs women experienced	Vaginal bleeding	10	25
	Vaginal discharge	0	0
	loss of fetal motility	0	0
	Delayed delivery	30	75
	Fever	0	0
Experienced danger signs above	Yes	10	25
	No	30	75
Seek medical care on above signs	Traditional midwife	0	0
	Village midwife	14	35
	Medical doctor	0	0
	Nurse	26	65
Last delivery by Cesarean Section	Yes	28	70
	No	12	30

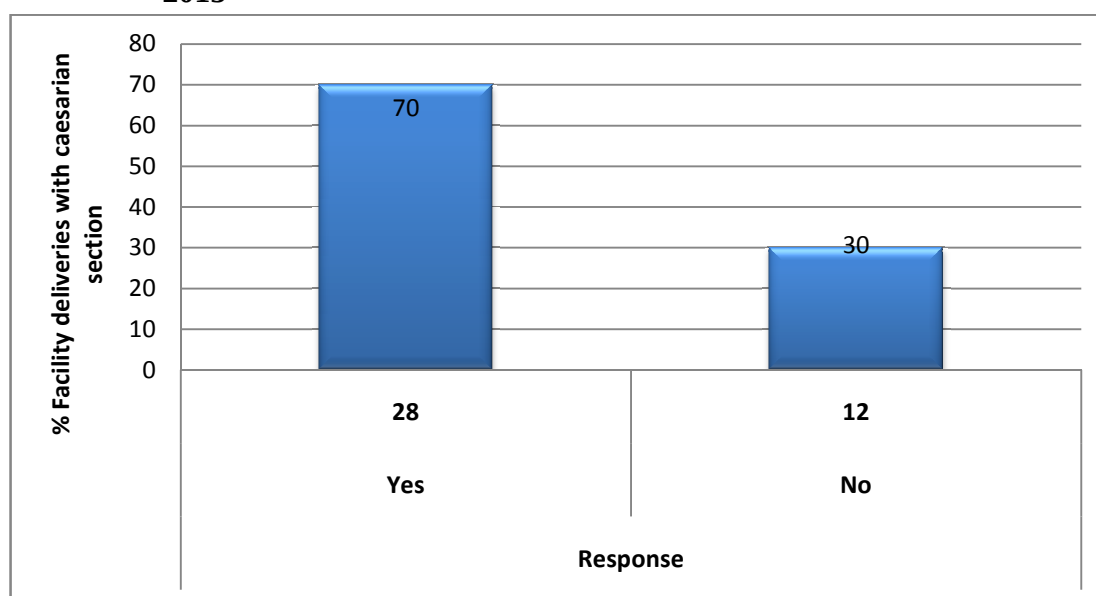
Source: Field Data 2016

In establishing level of awareness on the importance of accessing CEmONC services, 22(55%) respondents reported to have attended twice in antenatal clinic, and at least (18)45% attended once. It was however reported that before project supported facilities interventions, antenatal clinic attendance was very poor. It was noted that used to go once specifically at the time when they feel to have labor pains. All 40 (100%) respondents preferred to deliver at health facilities instead of home-delivery. Women of childbearing age 15-49 years 35(85%) reported to have been seeking medical care from skilled health personnel and after experienced danger signs of delayed delivery 30(75%) and 10(25%) had vaginal bleeding.

Mode of delivery in the health facility

The WHO recommends an optimal range of 5-15% and anything below 5%, it is suggested that women in need of this life-saving procedure cannot access it. However, among women who delivered in CEmONC facilities in the period of Jan-Dec 2015, 70% delivered by C-section. This reflects how community has being influenced in seeking prompt health services in nearby renovated facilities hence reduction of maternal deaths.

Figure 4.2: Percentage of Women delivery by C-section in Uvinza DC by Jan-Dec 2015



Source: Field Data 2016

4.4 Assessment of the roles of traditional birth attendant's (TBA's) on emergency obstetric and neonatal care

One current strategy to overcome the issue of shortage of qualified health workers has focused on the use of community health workers in the developing countries to deliver health care services specifically to the most vulnerable communities in the rural areas. In addressing the challenge, it was reported that Uvinza District Council has incorporated the traditional birth attendant in health system through a family health promoter initiative in response to reproductive and child health by encouraging women to go to health facilities for preventive services.

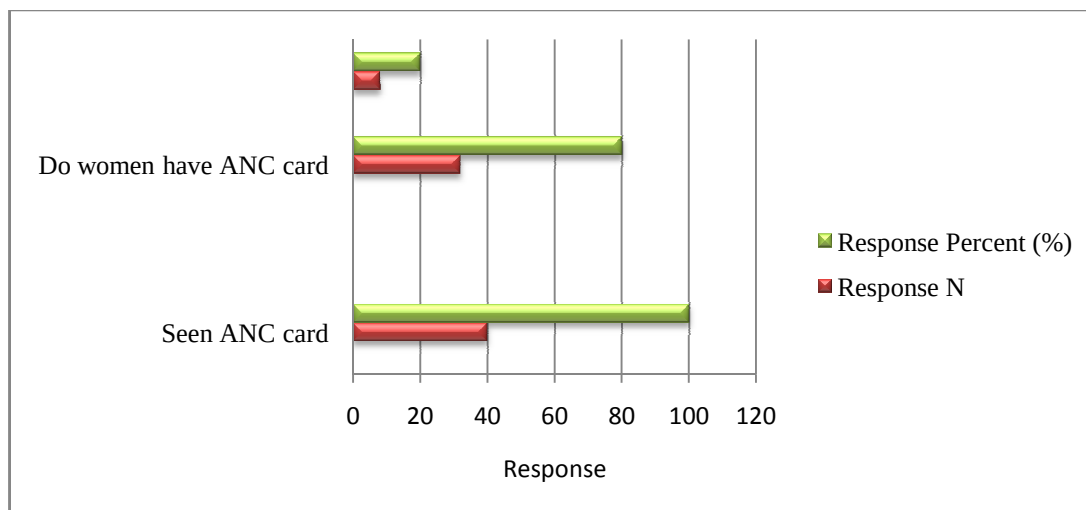
Table 4.3: Roles of TBA's on emergency obstetric

Figure 1: Information on ANC			
ANC Information	Category	Response	
		N	Percent (%)
Seen ANC card	Yes	40	100
	No	0	0
Do women have ANC card	Yes	32	80
	No	8	20

Source: Field data 2016

As illustrated in the figure below, all 40 (100%) traditional birth attendants who were engaged in the evaluation have knowledge on assessing if pregnant women have antenatal clinic cards, by having these cards justifies that pregnant women attends reproductive and child health clinics. Among those pregnant women whom were visited at home by 32 traditional birth attendants (80%) all had ANC cards. This high number of women attending reproductive health clinics raises concern on high accessibility to EmONC for pregnant women and indicates that traditional birth attendants accomplish their responsibilities.

Figure 4.3: Information ANC by TBAs in Uvinza by May 2016



Source: Field data, 2016

Information on delivery of pregnant women escorted by TBA to health facilities

Table 4.4: Information on delivery

Variable	Category	Response	
		N	Percent (%)
Women experience problem on delivery	Yes	2	5
	No	38	95
Type of Problem	Vaginal bleeding	1	2.5
	Low hemoglobin	7	17.5
	First pregnancy	2	5
	Many deliveries	0	0
	Others	30	75
Give any Medicine	Yes	3	7.5
	No	37	92.5
Type of Medicine provided	Local medicine	1	2.5
	Modern medicine	6	15
	Combination	0	0
	None	33	82.5

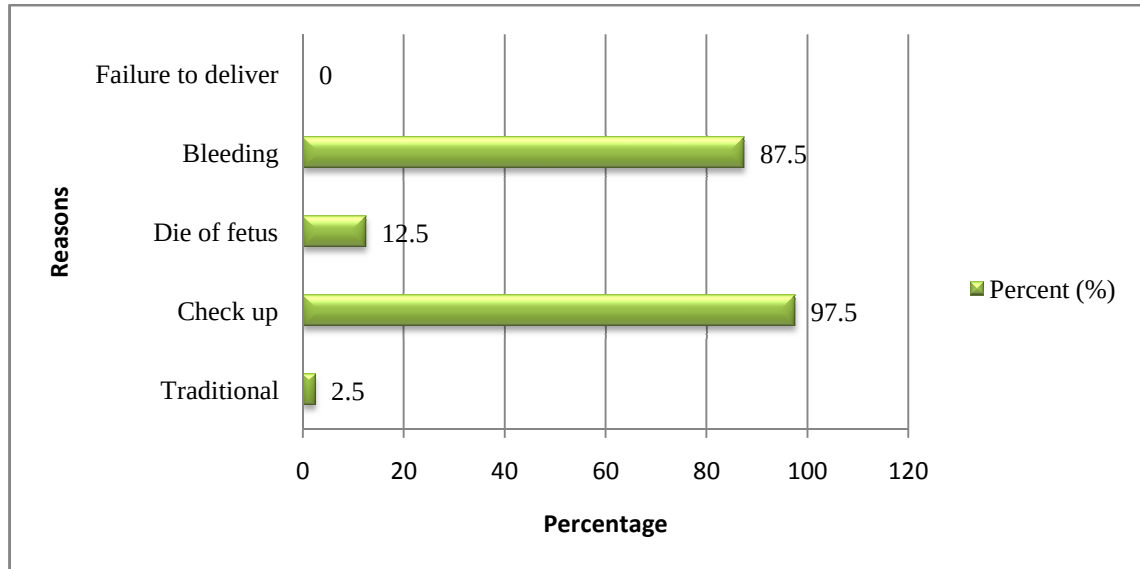
Source: Field data 2016

One of the major roles that were identified by the Traditional birth attendant's primary roles was that they ensure earlier referring pregnant women to facilities having EmONC services. Among others, it was found that in many cases, TBAs ensures that Table 3 summarizes the information on all complicated delivery of women deliveries are referred to the health facilities by TBAs. , It was reported by 38 TBAs (95%) of TBAs that they conducted earlier referral hence women did not arise any life threatening complications. complications. Previously; TBAs used to initiate traditional medicines to pregnant women who were in their first stage of labor, this complicate pregnancy outcome by increasing labors pains which might probably end up to rupture of the uterus before reaching full dilatation of the cervix, hence death of the mother and the unborn child. Previously TBAs used to initiate traditional medicines to pregnant women who were in their first stage of labor, this complicate pregnancy outcome by increasing labors pains which might probably end up to rupture of the uterus before reaching full dilatation of the cervix, hence death of the mother and the unborn child, Currently, the World Lung Foundation project by supporting trainings and earlier referral of pregnant women without giving prior medication has contributed in reduction of maternal death in the community. 37 pregnant women (92.5%) were referred without given any medications

Reasons for pregnant women to attend reproductive health clinics

Most pregnant women attend clinic for check-up and assessment of their pregnancy, according to TBAs who were involved in this evaluation, 39 admitted that their clients prefer to attend reproductive health clinics for check-up, this accounts for 97.5% However, there are so many complications which probably might arise and could end up to maternal and neonatal deaths, one of the life threatening complication is bleeding which occurs for 87.5%. World lung Foundation after enhancing capacity building to traditional birth attendants, they are accomplishing their roles effectively of not retaining pregnant women in their homes instead they refer them immediately.

Figure 4.4: Reasons for clinic attendance, in Uvinza District council by Jan-Dec 2015

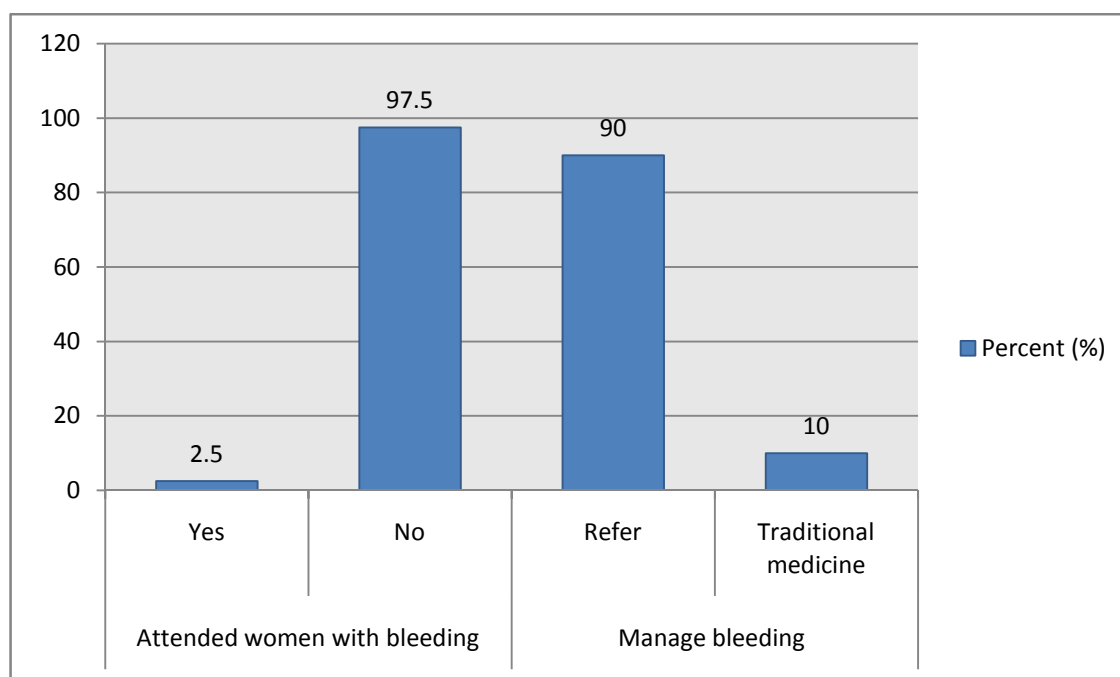


Source: Field data 2016

Roles of Traditional Birth Attendants during bleeding of pregnant women

Bleeding might probably arise at any time during pregnancy, when it occurs before 20 weeks of gestational age is termed as abortion, at 28 weeks is termed as Ante partum hemorrhage or placenta praevia. There are many factors contributing to bleeding during pregnancy, Traditional birth attendants as first persons to attend pregnant women preferably in peripheral areas are responsible to have preliminary knowledge on how to save pregnant women during bleeding episodes. 97.5% of traditional birth attendants responded that they never attended pregnant women who presented to them with bleeding, and 90% refer them to higher level health facilities providing CEmONC services for further management. Furthermore, this has contributed to reduction of maternal death in the community by attending nearby health facilities which has been upgraded by WLF to provide CEmONC services.

Figure 4.5: Roles of TBAs during bleeding of pregnant women in Uvinza district council by Jan-June 2015

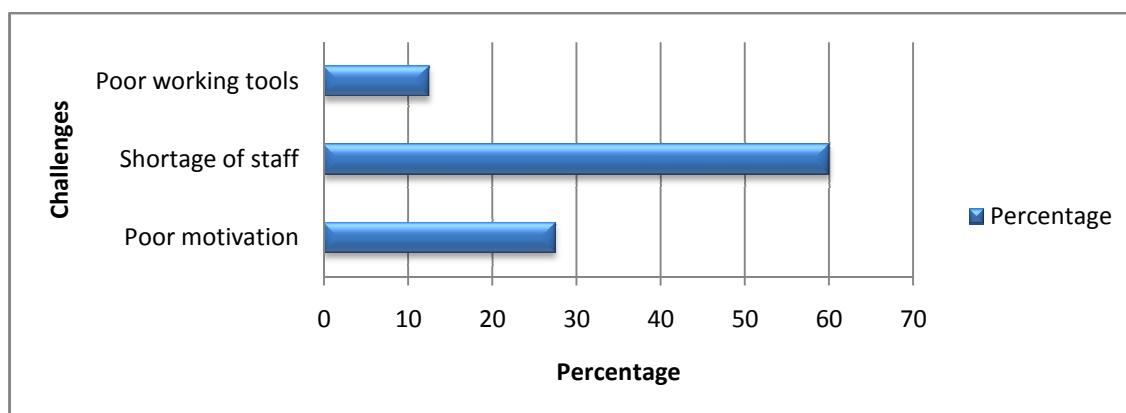


Source: Field data, 2016

4.5 The Challenges health care workers encountered during implementation of EmONC services in Uvinza District health facilities.

Challenge is the situation of difficulty in job or something else that needs a special effort to overcome it. In Tanzania health services provision focus a number of challenges that need to be addressed. This would enable the program or organization to improve the operating environments.

Figure 4.6: Challenges health care workers encountered during implementation of EmONC service in Uvinza District health facilities by 2015



Source: Field data 2016

Saving the lives of pregnant and recently delivered women in Uvinza District is a difficult work, the challenges are many and changes often appear to come slowly. Numbers of challenges were noted from respondents' point of view. 24(70%) of respondents mentioned that shortage of skilled staff in health facilities is the leading challenge in the facilities, followed by poor motivation (27.5%) and poor working tools 12.5%.

Shortage of staff is estimated to be of 70% in the district, this reflects to deficiencies in the number and quality of trained health providers, though the WLF-project upgraded the facilities and build capacity to health care workers, the number has not yet fulfill the target population. Effective strategies must be implemented urgently to attract and retain qualified workers in remote areas and address inequities in human resource for health allocation. This can include through Government prioritizing funding of health worker posts in under resourced districts, the provision of hard ship allowances, building staff housing as motivations that would encourage committed personnel to remain at remote facilities.

Table 4.5: Met EmONC services

Met needs	N		Percent
Satisfied EmONC services	Strongly agree	11	27.5
	Agree	24	60
	Neutral	5	12.5
Satisfied EmONC training support by WLF	Strongly agree	35	87.5
	Agree	0	0
	Neutral	5	12.5
	Disagree	0	0
	Strongly disagree	0	0
Too many patients to attend	Strongly agree	16	40
	Agree	0	0
	Neutral	19	47.5
	Disagree	0	0
	Strongly disagree	5	12.5
EmONC Standard Treatment Guideline and Essential medicine	Strongly agree	24	60
	Agree	11	27.5
	Neutral	2	12.5
	Disagree	0	0
	Strongly disagree	0	0
Different type of medicine available for EmONC services	Strongly agree	0	0
	Agree	0	0
	Neutral	35	87.5
	Disagree	0	0
	Strongly disagree	5	12.5

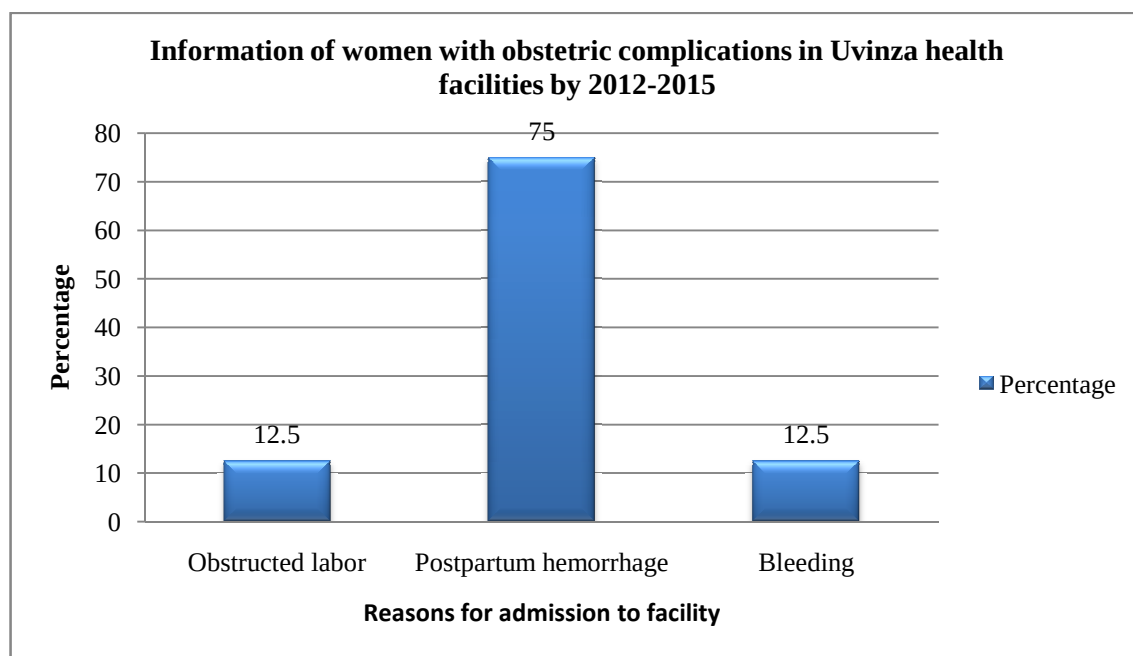
Source: Field data 2016

Measuring met needs for EmONC services provides insight into whether women can access (due to geographic coverage/proximity) and use EmONC services. Project supported facilities provides most of EmONC care in the district, 11 health care workers (27.5%) strongly agree the services are satisfactory, and 60% (24) agree EmONC needs were met.

The met need for EmONC was calculated through trainings provided by WLF, the provision of high quality care requires health workers who have participated competency-based training under close supervision. Table....illustrates 35 health care workers (87.5%) strongly agrees with training supported by World lung foundation, which was hands on and team based practical. Those who remain neutral 5 (12.5%) are new employees who are in need of basic training of EmONC.

Most of health facilities face chronic shortages and stock-outs of essential supplies and medicines, 35 Health care workers (85%) remained neutral in responding availability for EmONC services and 12.5% strongly disagree for different type of medicine availability. Significant efforts are being made to track procurement and distribution nationally, though problems persist. Emergency ordering from Medical Stores department-Tabora Zonal Office seems to rescue the situation although it's not a sustainable process.

Figure 4.7: Information of women with Obstetric complication



Source: Field data 2016

Postpartum hemorrhage continues to be a leading cause of obstetric complication in Uvinza district, despite that the increased access to and availability of EmONC services had a large impact on this cause of complication, as observed in figure 4.7; 75% accounts in postpartum hemorrhage, obstructed labor and bleeding contributes for 12.5% respectively. It is anticipated that with increased facility EmONC utilization, results in increase in caesarean sections thus decrease mortality from obstructive labor and postpartum hemorrhage.

Complications due to unsafe abortion has decreased by 87.5% where facilities offer Comprehensive post-abortion care (CPAC) services where all products of conception are removed with trained and skilled personnel hence reduces maternal complications.

EmONC services enhanced decrease in number of death on arrival to health facilities by 87.5%; this might probably be due to raised level of community awareness in earlier accessing care in health facilities at Reproductive health care clinics.

Table 4.6: Referral information

Referral	Category	Response	
		N	Percent(%)
Referred from	Home	5	12.5
	Mtego dispensary	14	35
	Malagarasi dispensary	21	52.5
Facility referred from	Direct from home	5	12.5
	Dispensary	35	87.5
Referred by	Medical attendant	19	47.5
	Direct from home	5	12.5
	Nurse	5	12.5
	Non-nurse midwife	11	27.5
Mode of transport to facility	Private vehicle	5	12.5
	Carried	5	12.5
	Motor cycle	11	27.5
	Wood boat	19	47.5
Cost of transportation	3000	5	12.5
	4000	9	22.5
	5000	5	12.5
	10000	21	52.5

Source: Field data 2016.

According to Tanzanian health policy (2010), referral from one health facility to another has levels that is low-high level, as from dispensary to health centre, health centre to district hospital, and from district hospital to regional referral hospital, and whenever the clients condition cannot be managed/handled at regional hospital then it will be referred to national consultancy hospitals.

Level of community awareness has been raised compared to previous years, as most of pregnant women are been referred from dispensaries (Mtegowanoti 35% and Malagarasi 52.5%) respectively, having BEmONC services to higher facilities providing CEmONC services. Only 12.5% are being referred from home, this could be happening to multigravida women whom most experience precipitated labor hence isn't easier for one to have enough time for preparations of referral.

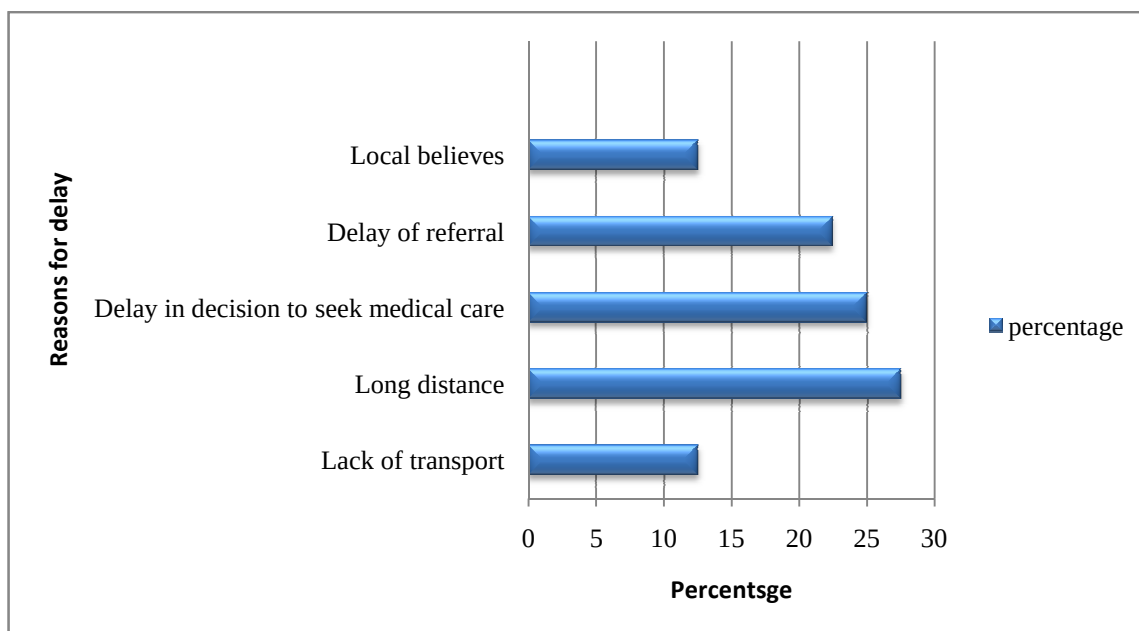
The issue of transportation along the shore of Lake Tanganyika remains as a major challenge in accessing EmONC providing sites, 47.5% of the Buhingu community lives along Lake Tanganyika shore use wooden boat as means for transportation and referral media for not only pregnant women but also neonates and children's, For some extent this has decreased the efforts of reduction of maternal death in the district,. Usually this wooden boat spends more than 18 hours sailing during windy seasons, and 9-10 hours in non-windy seasons, Furthermore, it is very expensive to hire these wooden boats as they use diesel engines, thus raise the cost to Tshs.10, 000/- per trip (52.5%) of transportation costs. There are facilities located where Ambulances cannot reach, these are the facilities most affected by easier referral infrastructures.

Reasons for delaying in access EmONC services in Uvinza health facilities

Figure 4.8 illustrates 25% of health care providers, responded that delay in decision to seek care accounts to higher percentage of remaining Maternal mortality rates occurring in the community, strategies in public education has being considered as a way forward to overcome this obstacle, this could probably be due to male dominance of the Tanzanian communities, that is even if pregnant woman experience labor pains then her husband is responsible for her permission on place of birth for their child. However, whenever there is earlier decision to seek care, long distance 27.5% remains a triggering challenge as well as the lack of transportation 12.5%.

Improving transportation availability and accessibility could contribute to more increased health facilities deliveries and decreased maternal and prenatal mortality, as it would decrease care seeking delays for example travel time to health facilities. Most transport delays can be addressed by joining efforts of the community (community mobilization activities) and an effective linked communication system that would bring together all components of the healthcare system, Community leaders might establish a point of contact in each hard to reach facilities of incoming complicated deliveries and redesign emergency transport means between facilities, this could be a proper approach.

Figure 4.8: Reasons for delay to access EmONC services in Uvinza health facilities by 2016



Source: Field data 2016

Health facility information

Evaluation was conducted in three health facilities, in which two of them Nguruka and Buhingu provides CEmONC services. Information from 20Nguruka health workers (50%) accounts for entire information of the challenges encountered by health care workers and Buhingu 37.5% through structured questionnaire. However, 72.5% was secondary data from admission books and 27.5% patient's records.

Table 4.7: Health facility information

Facility name	Category	Response	
		N	Percent(%)
Name of facility	Nguruka health centre	20	50
	Buhingu health centre	15	37.5
	Uvinza health centre	5	12.5
Type of health facility	Health centre	40	100
	Maternity post	0	0
Sources of information used to fill out this form	Admission logbook	29	72.5
	Patients records	11	27.5

CHAPTER FIVE

DISCUSSION OF EVALUATION FINDINGS

5.1 Assessing the level of awareness among women of child bearing age in accessing emergency obstetric care

Every year worldwide there are over half a million maternal deaths the following authors researchers (WHO 2006; Hogan et al 2010, Stanton et al 2006 & Hill et al 2007,) revealed about 99% of maternal deaths occurs in developing countries and are preventable. The challenges faced by low-income countries is to deliver both high coverage and high-quality care, and thus to trim down both financial and geographical barriers in access to maternal and prenatal health services. Way in to maternal and newborn quality care does not warranty a positive effect on maternal and newborn health outcomes but is sensibly measured as a contributing action to this goal, by the side of education and socioeconomic development. (Campbell & Graham 2006) observed that, most of interventions require a health system offering standard antenatal care and quality BEmONC and CEmONC health facilities.

From the evaluation findings an increase in level of awareness on importance of accessing CEmONC services, study respondents 22(55%) attended twice in antenatal clinic, and at least (18) 45% attended once, these results reveals how the community has awareness of maternal health project by accessing care at upgraded health facilities. Education and socioeconomic development is reasonably to be considered as a contributing action goal in improving and assuring a guarantee to a positive effect on maternal and newborn health outcomes. These were observed by evaluation conducted by (Menezes et al 2009; Darmstadt et al 2009 and Yakoob et al 2009; Haws et al 2009)

According to(Port et al 2008) stated, health facilities deliveries improved up to 25%, while the percentage of home delivery was from 93% to 79%. By 2012, health facilities deliveries went up to 45%. From the evaluation study it was observed, among women who delivered in CEmONC facilities in the period of Jan-Dec 2015, 70% delivered by

C-section. This reflects how community has been influenced in seeking prompt health services in nearby renovated facilities hence reduction of maternal deaths.

5.2 Roles of traditional birth attendants in emergency obstetric care

According to facts available (WHO 2005), predisposing causes for maternal mortality in developing countries are unsafe abortion, infections, hemorrhage, obstructed labour, pre-eclampsia and eclampsia. From the study conducted in 2013 at Kigoma District council titled “Involving traditional birth attendants in emergency obstetric care in Tanzania” by (Vyagusa et al 2013), results suggest traditional birth attendants were interested enquiring history of any abnormal condition before offering them services, 89.7% (n = 140) responded to have been looked for ante natal clinic cards on a regular basis before deciding to give the service. Reporters identified that usually on those antenatal clinic cards, there is a section which clarifies history of the pregnant woman, recorded in a every scheduled visit at health facility level, 61.5 % (96) traditional birth attendants reported to have had seen an ante natal clinic cards.

It was found that 94.7 % (108) TBA’s affirmed to have knowledge about danger signs, only 31.9% (47) pinpointed on mal presentation of the baby or big baby; 52.7% (78) identified retained placenta, hemorrhage, edema, fits during pregnancy and low hemoglobin level. Furthermore, 15.5% (23) mentioned on weakness in pregnancy.

In this evaluation findings, all 40 (100%) traditional birth attendants who were engaged in the evaluation have knowledge on assessing if pregnant have antenatal clinic cards and any danger signs, by having these cards justifies that pregnant women attends reproductive and child health clinics. Among those pregnant women whom were visited at home by 32 traditional birth attendants (80%) all had ANC cards. This high number of women attending reproductive health clinics raises concern on high accessibility to EmONC for pregnant women and indicates that traditional birth attendants accomplish their responsibilities.

Meanwhile, Sibley et al (2011) presented that, for quality EmONC services to be well improved, the role for traditional birth attendants in remote areas is very crucial, their accessibility, availability, skills and competence plays an important part in the issue of earlier referral of pregnant women with alerting complications signs. Lacking of effective monitoring and supervision of trained traditional birth attendants reveals they need updated knowledge of their roles while attending pregnant women. Furthermore, (Chowdhury et al 2012) suggested that, though there is an importance of trained TBAs, their capability to adopt and practice might cause them to acquire extra confidence which could lead to incidence of invasive procedures and cause more harm to pregnant women, sometimes delays to refer pregnant women for skilled EmONC services. As elaborated by (Mbaruku et al 2011) traditional birth attendants could be well recognized by health care system, and work in collaboration with skilled birth attendants instead of replacing them with skilled health attendants.

5.3 Challenges encountered by health care workers in emergency obstetric care and neonatal services.

According to (Banda et al 2012), In Malawi the percentage of pregnant women attended by skilled birth personal has of women attended by a professional during delivery has being around 57%, which causes the existence increase in maternal mortality rate of 1:7 hence accounting to country with worst human resource for health in Sub Saharan Africa. Furthermore, (Chilopora et al 2014) revealed that 93% of the clinicians, nurse and low health cadres, carry out emergency obstetric surgeries in government health facilities, while 78% in mission facilities, and have same postoperative outcomes compared to those of doctors.

Likewise inadequate human resource poses a significant challenge in implementing emergency obstetric services. Findings from this evaluation established numbers of challenges from respondents' point of view. 24(70%) of respondents mentioned that shortage of skilled health staff is the leading challenge in the facilities, followed by poor motivation (27.5%) and poor working tools 12.5%. Shortage of staff is estimated to

be of 70% in the district, this reflects to deficiencies in the number and quality of trained health providers.

CHAPTER SIX

SUMMARY, CONCLUSION AND POLICY IMPLICATION

6.1 Summary

This study evaluates World Lung Foundation program in emergency obstetric and neonatal care services supported health facilities of Uvinza district council. In the period of Jan-Dec , institutional deliveries increased by 87.5%, CEmONC health centers reported 70% deliveries by caesarean section, the highest ever recorded, and likely due to the increased number of operating theatres in the district and raised community awareness in accessing EmONC services, Furthermore, health care workers (87.5%) strongly agrees with training supported by World lung foundation, Challenges encountered need a clear measures for improvement of health services. This is because findings have revealed that World lung Foundation objectives are not fully achieved due to various factors. Also the evaluation noted a number of challenges facing health care workers. These challenges are manageable through good plan and Government commitments.

6.2 Conclusion

World Lung Foundation's investments have resulted in lives-saved. This evaluation finds that challenges encountered by the health care workers can be met only if good plans are earlier put as first priority. The issue of 3 Ds (**D**elay in decisions making when to seek care, **D**ecision of earlier referral and **D**ecision on what time to start treatment) all these cut across as limitations to achieve millennium goal number 5. Findings show that the maternal mortality rate in all health facilities have decreased by 44% between January 2011 and June 2013(WLF report, 2013).

The evaluation shows a notable 70% increase in institutional deliveries in Project-supported facilities compared to a 30% decrease in non-project-supported facilities; and a decrease in the case fatality rate in project sites. The most recent six-month report

suggested improved quality of care for direct obstetric complications and widely level of awareness among community by seeking care to EmONC providing facilities.

6.3 Recommendation

To help sustain maternal health initiatives in Uvinza District, a taskforce of partners that is World Lung Foundation and Government institution should be established. The taskforce should bring together public agencies and private organization in a partnership aiming to meet regularly to assess progress of maternal health activities, monitor the initiatives, cost effectiveness, reduce duplication of activities and ensure sharing of resources and information.

In collaboration with Ministry of Health, future studies should assess the protocols and effectiveness of emergency referrals between low-high level health facilities in ensuring that women with obstetric complications benefit from timely access the EmONC services, the assessment should explore the ability of low to high health facilities personnel know how to diagnose severe obstetric complications, their knowledge of where and when to make referral decisions, how to stabilize pregnant women prior referral and how to organize, communicate and the feedback mechanisms.

Health facilities implementing EmONC services in Uvinza District should be added from 2 to 4 in order to increase service coverage, the incentives given to mothers who deliver at health facility should be maintained.

6.3 Policy implication

Government Engagement

From the outset of the Maternal Health Project, WLF has engaged closely with all levels of the Ministry of Health and Social Welfare (MoHSW), Council and Regional authorities to identify areas of the Project which government will be in a position to absorb and sustain. The Project shares lessons learned in decentralizing CEmONC and task-shifting in order to inform Government's scale-up of CEmONC across the district

that is from two health facilities (Nguruka and Buhingu Health centers) the services should be expanded to more two health facilities that is (Uvinza and Ilagala) for provision of CEmONC services, in order to reach large numbers of people with health services, thus serving the lives of many women, an initiative must reach scale. This requires a rationalized and resourced plan for increasing quality services, improving effective access of women to facilities, and instituting accountability mechanism on the part of Government and Non-governmental partners to provide essential maternal health care. It's high time for political enforcement on procuring fiber boats which are more speedy and comfortable for referring pregnant women instead of wooden boats which currently are in place and usually takes more than 6-8 hours during referrals. However, NGOs should also adapt the WLF model for their own efforts to establish CEmONC.

WLF and its donors should deepen their partnership with Government to expand CEmONC in the districts and regions where WLF works. District council should share the findings of this evaluation with other partners in the region for provision of in-depth information on the impact of the Project and assist in Government and partners' planning for scaling up EmONC nationally. Increasing Government investment in maternal health is a crucial and complex challenge given the serious human resource and financial constraints of government at all levels and competing policy demands.

5.4 Areas for further evaluation

This evaluation study was not exhaustive since it covered few specific areas due to financial limitations, specificity and many others. In this regard, further evaluation could be considered to the following areas:

- Assess the protocols and effectiveness of emergency referrals between low-high level health facilities

PROGRAM WORKPLAN

ANNUAL WORKPLAN									
			2015	2016					
ACTIVITY	INPUTS	PROGRESS AND PARTNERS		Q1	Q2	Q3	Q4	RESPONSIBLE PERSON	EXPECTED OUTPUTS
Proposal Development		completed						Program Evaluator (HaikaKimambo)	Proposal document
Program Assessment	Venue , Proposal document	completed						Program Evaluator (HaikaKimambo)/Supervisor	Common understanding between evaluator and the Uvinza district staff
Development of the evaluation methodology	References, online materials, Uvinza district council	completed						Program Evaluator (HaikaKimambo)	Protocols/Evaluation methodology finalized
Developing data collection tools	Reference books	completed						Program Evaluator (HaikaKimambo)	Tools for data collection
Pretesting of data collection Tools and Protocols	Tools for assessment	completed						Program Evaluator (HaikaKimambo)	Corrected version of Assessment tools finalized
Seek Ethical Clearance and Permission	Introduction letter from Mzumbe University	completed						Program Evaluator (HaikaKimambo)	Ethical clearance and permission letters obtained
Data collection	Data collection tools transport allowance and accomm	completed						Program Evaluator (HaikaKimambo)	Data collected

	odation								
Data analysis and Report writing	Stationaries and Collected data	completed						Program Evaluator (HaikaKimambo)	Evaluation report
Submission of Evaluation Report for Marking	Report	completed						Program Evaluator (HaikaKimambo)	Evaluation report with supervisor inputs
Produce a final Evaluation report	Comments	completed						Program Evaluator (HaikaKimambo)	Final Evaluation Report
Evaluation Report dissemination to Uvinza District council/WLF	Final Report Stationaries	completed						Program Evaluator (HaikaKimambo)	Dissemination report and use

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APPENDICES

Appendix I: Structured questionnaire. Women (ages 15-49) who have at least one child under the age of 5

OBJECTIVE 1: To assess the level of awareness among community on emergency obstetric and neonatal care services.

Questionnaire #:

Interviewer Name: _____ Date: _____

INFORMED CONSENT

Dear Sir/Madam

I would like to introduce myself to you and the purpose for this study. I am a student from Mzumbe University pursuing Master of Science in Health Monitoring and Evaluation. My research title is 'Assessment of the implementation process and community awareness on emergency obstetric and neonatal services in rural settings: A case of Uvinza district council'. I am conducting this evaluation for academic purpose only and I will maintain the confidentiality of the data. The interview will take about 30/35 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be disclosed to other persons. Participation in this evaluation is voluntary and you can choose not to answer any individual question. However, I hope that you will participate in this evaluation since your views are important. At this time, do you want to ask me anything about the evaluation? May I begin the interview now?

RESPONDENT AGREES TO BE INTERVIEWED..... 1

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED.....2

Socio- Demographic information of the respondents

1. Age

- (a) 15-25 years
- (b) 26-35 years
- (c) 36-45 years
- (d) 46-55 years []
- (e) 56-60 years

2. Sex category

- (a) Male
- (b) Female []

3. Education level

- (a) Secondary education []
- (b) certificate
- (c) Diploma
- (d) Degree and above

4. Marital status

- (a) Married
- (b) Single
- (c) Single parent []
- (d) Widower
- (e) Divorced

Questions are about community awareness on EmONC.

1. How old were you when you first gave birth?
2. How many children total have you given birth to?
3. How many of the children you gave birth to are currently living?
4. Where were you living during your last pregnancy?

In town.....

In Village.....

5. During your last pregnancy, how many times did you go for Antenatal Care (ANC) check-up?

A) Once

B) Twice

C) Thrice []

D) Fourth

6. During your last delivery, where did you deliver?

a) Home.....

b) Clinic..... []

c) TBA.....

7. Where do you prefer to deliver?

a) Home.....

b) Clinic..... []

c) TBA.....

8. Who assisted you with your last delivery?

a) TBA

b) Medical Doctor.

d) Medical assistant or Nurse []

e) Village Midwife

9. After your last delivery, did you receive any medical care within the first six weeks after delivery?

a) Yes

b) No []

10. From whom did you seek care?

- a) Untrained traditional midwife
- b) Village Midwife (trained health cadre)
- c) Medical Doctor v) Medical Assistant or Nurse []
- d) Other (Specify) _____

11. Sometimes labor and delivery can become quite dangerous for both mother and child. In these situations it is important to seek medical care at a clinic or hospital. From what you've seen and heard, what are some danger signs women may experience before, during and after labor?

- a) Vaginal bleeding
- b) Vaginal discharge (not blood)
- c) Loss of fetal motility
- d) Delayed/long delivery []
- e) Fever
- f) Convulsions/shaking
- g) Abdominal pain
- h) Excessive vomiting
- i) Shortness of breath
- j) Weakness
- k) Dizziness
- l) Swelling of hands and feet

13. During your last delivery, did you have any of the above mentioned signs of complications with your pregnancy?

- a) Yes
- b) No []

14. From whom do you seek care when you have a problem?

a) Untrained traditional midwife

b) Village Midwife

c) Medical Doctor []

d) Medical Assistant or Nurse

15. During your last delivery, did you delivery by Cesarean Section? By Cesarean Section I mean when a woman needs surgery to remove the baby from her abdomen.

a) Yes

b)No []

Date form filled out: _____

Appendix 2: Structured questionnaire: Traditional birth attendants.

INFORMED CONSENT

Dear Sir/Madam

I would like to introduce myself to you and the purpose for this study. I am a student from Mzumbe University pursuing Master of Science in Health Monitoring and Evaluation. My research title is 'Assessment of the implementation process and community awareness on emergency obstetric and neonatal services in rural settings: A case of Uvinza district council'. I am conducting this evaluation for academic purpose only and I will maintain the confidentiality of the data. The interview will take about 30/35 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be disclosed to other persons. Participation in this evaluation is voluntary and you can choose not to answer any individual question. However, I hope that you will participate in this evaluation since your views are important. At this time, do you want to ask me anything about the evaluation? May I begin the interview now?

RESPONDENT AGREES TO BE INTERVIEWED..... 1

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED..... 2

OBJECTIVE 2: To assess the roles of traditional birth attendant's (tba's) on emergency obstetric and neonatal care.

NO	QUESTION	CODE CATEGORY	RESPONSE
1	Education of TBA	1. Primary 2.Madrasa 3.Secondary 4. Post Secondary education	
2	Marital status	1. Married 2.Single 3.Divorced 4.Widow 5.Separated	
3	Religion	1.Muslim 2.Christian 3.Others(specify)	
4	Village		
5	Health Unit		
6	Ward		
7	Division		
8	Age	1. 20-29 Years 2. 30-39 Years 3. 40-49 Years 4.50+	

PAR TB			
NO	QUESTION	CODE CATEGORY	RESPONSE
1	Have you ever seen this card (show the ANC)	1. Yes 2. No	
2	Those women who come to you, did they have this card?	1. Yes 2. No	
3	Did these women have any problems during delivery?	1. Yes 2. No	
4	If yes what was the problem?	1. Vagina Bleeding 2. Low hemoglobin	
	Please tell me which medicine 1. Local medicine 2. Modern medicine 3. Mixture of local and modern medicine	3. First pregnancy 4. Many deliveries 5. Swelling of the lower limbs 6. Previous history of severe vagina bleeding after delivery 7. Bad lie 8. Abnormal presentation	
5	Do you give any medicine?	1. Yes 2. No	

6	Please tell me which medicine	1. Local Medicine 2. Modern Medicine 3. Mixture of Local and Modern Medicine	
7	Why do pregnant mother attend to antenatal clinic	1. Because it is traditional 2. To have their problems checked and managed properly 3. I don't know the reasons	
8	Do you think it is important for them to attend these Kliniki?	1. Yes 2. No	
9	Why	1. 2. 3.	
10	Have you ever heard of risk conditions in pregnancy?	1. Yes 2. No	
11	If yes please mention them	1. 2. 3.	
12	If yes can you tell me how can you be infected with HIV?	1. Sexual intercourse 2. Contact with blood and its products 3. I don't know 4. Others (specify)	

13	How would you avoid HIV infection while assisting delivery?	1. I don't know 2. I put on gloves 3. I cover my hand with 4. I apply local herbs	
14	Do you think that gloves are necessary for infection control during delivery?	1. Yes 2. No 3. I don't know	
15	Have you ever attended a woman with bleeding during pregnancy?	1. Yes 2. No	
16	If yes how did you help them	1. 2. 3.	
17	How do you manage bleeding occurring in late pregnancy?	1. I refer her	
		2. I give traditional 3. I pray for her 4. Other measures (specify)	
18	What do you usually do before starting the procedure of conducting delivery	1. Wash hands 2. Wash hands and put on gloves 3. Put on gloves without washing hands 4. Boil equipments 5. Nothing 6. Others (specify)	

19	What materials do you use during assistance of childbirth?	1. Glove 2. Razor blade 3. Scissors 4. Mac kin tosh 5. Clean towel 6. Antiseptic	
20	What do you do in case you don't get these materials?	1. I just continue without protection 2. I don't assist delivery 3. I use whatever available like cloth, papers, leaves etc.	
21	have you ever referred to the health facility?	1. Yes 2. No	
22	If yes, what was the reason for referral	1. 2. 3.	
23	Did all you advised to go to the health unit accepted	1. Yes 2. No	
24	If yes, how did you helped them	1. 2. 3.	

Appendix 3: Structured questionnaire: Health care workers implementing EmONC services

INFORMED CONSENT

Dear Sir/Madam

I would like to introduce myself to you and the purpose for this study. I am a student from Mzumbe University pursuing Master of Science in Health Monitoring and Evaluation. My research title is ‘Assessment of the implementation process and community awareness on emergency obstetric and neonatal services in rural settings: A case of Uvinza district council’. I am conducting this evaluation for academic purpose only and I will maintain the confidentiality of the data. The interview will take about 30/35 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be disclosed to other persons. Participation in this evaluation is voluntary and you can choose not to answer any individual question. However, I hope that you will participate in this evaluation since your views are important. At this time, do you want to ask me anything about the evaluation? May I begin the interview now?

RESPONDENT AGREES TO BE INTERVIEWED..... 1

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED..... 2

OBJECTIVE 3 .To assess the challenges encountered during implementation of EmONC services in Uvinza District health facilities.

1. ID Number (assigned by evaluator): _____
2. Mention one challenge faced by EmONC service provision in your health facility
.....
.....

3. . What do you think hinders effective EmONC service provision in your facility?

(a) Poor working tools

(b) Poor laboratory services

(c) Too many patients to attend []

(d) Lack of active monitoring mechanism

(e) Lack of EmONC training

22. Please, put a tick where you think appropriate answer for the given statements. Use; strongly agree=5, Agree= 4, Neutral=3, Disagree=2, strongly disagree=1.

4.

No	Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Satisfied with EmONC service provision in your facility					
2	Satisfied with the EmONC training supported by World Lung Foundation					
3	Too many patients to attend (Over worked)					
4	Understands well EmONC Standard Treatment Guide Line and Essential Medicine list					
5	Availability of different types of medicine in Facility offering EmONC service.					

Information of Women with Obstetric Complications

A. Information on complication

5. Principal reason for admission to facility:

1. Obstructed labor
2. Postpartum hemorrhage
3. Ante partum hemorrhage
4. Eclampsia []
5. Sepsis (related to abortion)
6. Puerperal sepsis
7. Shock (related to abortion)
8. Bleeding (in early pregnancy)
9. Other (specify) _____
10. Unknown

6. Main complication woman experienced (if different from reason for admission):

0. Not applicable/ same as above
1. Obstructed labor
2. Postpartum hemorrhage
3. Ante partum hemorrhage
4. H.D.P./Eclampsia
5. Sepsis (related to abortion) []
6. Puerperal sepsis
7. Shock (related to abortion)
8. Bleeding (in early pregnancy)
9. Ruptured uterus
10. Ectopic pregnancy
11. Other (specify) _____

7. Was this complication due to an unsafe abortion?

1. Yes

2. No []

B. Condition on admission

8. Dead on arrival:

1. Yes

2. No []

a) B/P:

b) Temperature: _____

c) Pulse: _____

d). Respiration: _____

C. Information on management of case

9. Admission to facility date_____

Treatment 1_____

Treatment 2_____

Treatment 3 _____

Treatment 4_____

Treatment 5 _____

Referral here to:_____

List any treatment prescribed and not given. Give reason for not giving it.

D. Referral information

10. Referred from: _____

(Name of health facility)

11. Type of facility referred from (circle one):

1. Government hospital

2. Private hospital

3. Health centre []

4. Health post

5. Maternity post

6. Not Applicable -- Self-referral (directly from home)

7. Other (specify) _____

9. Unknown

12. Referred by:

1. Self-referral (directly from home)

2. Doctor

3. Paramedical staff

4. Nurse/midwife []

5. Non-nurse midwife, MCH aide, etc.

6. TBA

7. Other (specify) _____

9. Unknown

13. Mode of transportation to the health institution (NOTE: here you should circle all types of transport used from the home to the institution):

1. Private vehicle

2. Government vehicle

3. Ambulance

4. Transport workers' union vehicle []

5. Walked

6. Carried

7. Other (specify) _____

9. Unknown

14. Cost of transportation (NOTE: this should be the total cost of transportation from their home to the facility): _____

E. Delivery information

15. Where did delivery occur?

0. Not applicable (No delivery)

1. At this facility []

2. At another facility (specify) _____

3. En route

4. Home

5. Other (specify) _____

9. Unknown

16. Type of delivery:

0. Not applicable (No delivery)

1. Normal

2. Forceps

3. Vacuum extraction []

4. Cesarean section

9. Unknown

17. Delivery attendant:

0. Not applicable (No delivery)

1. Doctor

2. Nurse/Midwife

3. Trained TBA

4. Untrained TBA []

5. TBA (training status unknown)

6. Family member

7. Other (specify) _____

9. Unknown

18. Maternal outcome:

1. Referred (specify place) _____

2. Discharged

3. Discharged against advice

4. Absconded

5. Died (in hospital) []

9. Unknown

19. Fetal outcome:

0. Not applicable

1. Survived []

2. Died

9. Unknown

G. Comments

20. List factors that contributed to delays in treatment (e.g. lack of transport, anesthetist not on site, etc.). Please do not blame the patient.

Factors contributing to delay

- a) _____
- b) _____
- c) _____
- d) _____

H. Health facility information

21. Name of this facility: _____

Type of health facility (circle one):

- 1. Government hospital
- 2. Private hospital
- 3. Health centre []
- 4. Health post
- 5. Maternity post
- 6. Other (specify) _____

22. Sources of information used to fill out this form (circle all that apply):

- 1. Admission logbook
- 2. Ward record book
- 3. Death register
- 4. Bookkeeping records
- 5. Transport logs
- 6. Referral logs []
- 7. Discharge book
- 8. Patient's records
- 9. Other facility records (specify) _____

Date form filled out: _____