

**EVALUATION OF THE IMPLEMENTATION PROCESS OF
HEALTH SYSTEM STRENGTHENING PROGRAM TOWARDS
IMPROVING EMERGENCY OBSTETRIC AND NEWBORN
CARE SERVICES:**

**A CASE OF SELECTED HEALTH FACILITIES IN KISARAWA
DISTRICT**

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SYSTEM STRENGTHENING PROGRAM TOWARDS IMPROVING
EMERGENCY OBSTETRIC AND NEWBORN CARE SERVICES:
A CASE OF SELECTED HEALTH FACILITIES IN KISARAWA DISTRICT**

**By
Martin Felician Mwandiki**

**A dissertation Submitted in Partial/Fulfillment of the Requirements for Award
of the Degree of Master of Science in Health Monitoring and Evaluation of the
Mzumbe University**

2018

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled ***“Evaluation of the implementation process of health system strengthening program towards improving emergency obstetric and newborn care services a case of selected health facilities in Kisarawe District”***, in partial/fulfillment of the requirements for award of the degree of Master of Science in Health Monitoring and Evaluation of the Mzumbe University.

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I, **Martin Felician Mwandiki**, 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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I must also express my very profound gratitude to my wife Julie Ngowi and my parents Mr. Felician Muhandiki, my father, Mr. William Mdundo my stepfather and Mrs. Caroline Mdundo, my mother for providing me with unfailing support and continuous encouragement throughout my studies.

DEDICATION

This work is dedicated to my lovely wife Julie Ngowi and my parents Mr. Felician Muhandiki, my father, Mr. William Mdundo, my stepfather and Mrs. Caroline Mdundo my mother for their love and support during my study.

LIST OF ABBREVIATIONS

ANC	Antenatal Care
AMO	Assistant Medical Officer
BEmONC	Basic Emergency Obstetric and Neonatal Care
CEmONC	Comprehensive Emergency Obstetric and Neonatal Care
CFR	Case Fatality Rate
CHMT	Council Health Management Team
EmONC	Emergency Obstetric and Neonatal Care
FANC	Focused Antenatal Care
FBO	Faith Based Organizations
FP	Family Plan
HMIS	Health Management Information
KOFIH	Korea Foundation for International Healthcare
MCH	Maternal and Child Health
MDGs	Millennium Development Goals
MMR	Maternal Mortality Ratio
MVA	Manual Vacuum Aspiration
MoHCDGEC:	Ministry of Health, Community Development, Gender, Elderly and Children
PAC	Post Abortion Care
PORALG	President's Office Regional and Local Government
RHMT	Regional Health Management Team
TDHS	Tanzania Demographic and Health Survey
WHO	World Health Organization

ABSTRACT

Background: In this 21st century with well advanced technology on medical treatment we still lose a number of women and children during childbirth in Tanzania. Emergency obstetric care is one of the strategies for reducing death during childbirth.

Objectives: The aim of this study was to evaluate the implementation process of health system strengthening program towards improving emergency obstetric and newborn care services specifically, ability of the health facilities on providing EmONC services after health system strengthening. The goal of the project has been to improve EmONC services by ensuring availability of funds for training of health staff, procurement of medical equipment and supplies to the health facilities of Kisarawe district.

Methodology: A cross-sectional descriptive study was conducted to 15 health facilities in the period of 2015-2017. The methods of data collection employed were mixed methods of data collection whereby the data was collected through face to face questionnaires to coordinators of the program, structured questionnaire administered to health staff, observation checklist and documentary review of the facilities' records. Descriptive analyses such as bar charts, histograms, line charts and percentages were employed.

Results: The amount of support was not adequate since the program managed to support just four facilities out of 35. Merely 19%-20% of staff were trained for EmONC services, and almost all were from the district hospital. There was a shortage of medical equipment by 39.1-56.5% and medical supplies by 40-65% for EmONC services to all selected health facilities except the district hospital. The dispensaries and health centers could provide EmONC services at rate of 22.2-44.4% except the district hospital which had 100 percent.

Conclusions: The implementation process of health system strengthening towards improving EmONC services at selected health facilities is not implemented successfully.

Recommendations: There is a need of more funds, and the district should see to it that the program is implemented more effectively to realise set objectives and the Government of Tanzania should also increase its stewardship.

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CHAPTER ONE

INTRODUCTION

This chapter includes the general overview of emergency obstetric and newborn care in Tanzania. The presentation starts with tracing the background of the research problem, followed by statement of the problem, research objectives and research questions, significance of the study, description of the program to be evaluated and stakeholder's analysis.

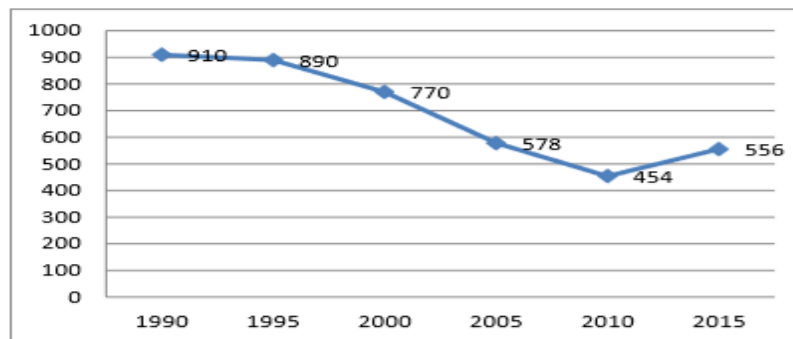
1.1 Background

In this 21st century with well advanced technology on medical treatment, we still lose a number of women and children during childbirth in Tanzania. Maternal and neonatal deaths could be avoided if we deployed the right measures during delivery of the pregnant mother and newborn care (WHO, 2009).

According to WHO, one of the most effective medical care treatments for pregnant mothers and newborn during childbirth is emergency obstetric and newborn care (EmONC) (WHO, 2009).

Tanzania Demographic and Health Survey (TDHS) 2016, revealed that the trend of MMR since 1990 to 2015, there is a reduction from 910/100,000 live birth to 556/100,000, which is equivalent to 38% decrease and this is shown in figure 1.1. This is far behind the MDGs number 5, which required a target of 75% decrease on MMR from the year 1990-2015 (Rumishael et al, 2017).

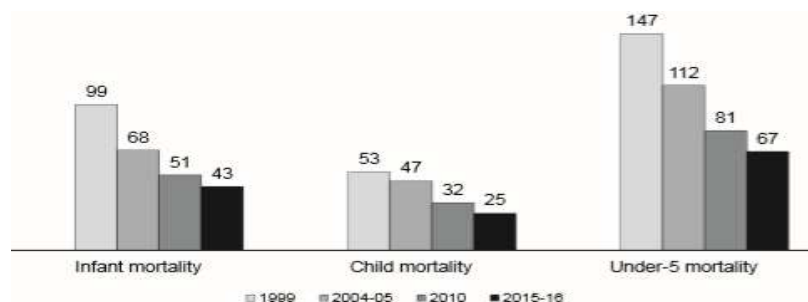
Figure 1.1 Maternal mortality ratios (MMR) trend in Tanzania, 1990-2015



Source: TDHS 2016

Furthermore, Tanzania has shown remarkable achievement in reduction of newborn mortality (see figure 1.2). This achievement needs to be sustained and improved further. The trend of child mortality in Tanzania since 1990 to 2015 revealed that, there was a reduction of newborn mortality whereby child mortality decreased from 53/1000 to 25/1000, infant mortality rate decreased from 99/1000 to 43/1000, and under five mortality rate decreased from 147/1000 to 67/1000 live birth (see figure 1.2) (NBS, 2016).

Figure 1.2 Newborn mortality trend in Tanzania from 1999-2015



Source TDHS, 2016

The Kisarawe district in 2015 had MMR of 185/100,000, under five mortality rate of 4/1000, infant mortality rate of 4/1000 and child mortality rate of 12/1000 live birth (KOFIH, 2016). This shows that the rates are low compared to National rates but still the district was facing a problem of maternal, under five, infant and child mortality problem hence more efforts are needed to improve the quality of the maternal and newborn services.

In this respect, the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) in collaboration with Korea Foundation for International Healthcare (KOFIH) established a program called Health System Strengthening, which aims at implementing the maternal, newborn and child health (MNCH) programs, which is in line with ONE PLAN II strategic plan in Pwani Region of Tanzania. The health system strengthening program toward improving EmONC services is being implemented within a period of six years starting from 1st July 2016 and ending on 31st December 2021 with a total grant of 3,000,000USD and the sites are Kibaha District, Kibaha Town Council, Kisarawe District, Rufiji District, Kibiti District and Mafia district (KOFIH, 2016).

1.2 Statement of the Problem

Kisarawe district is one of the districts of Pwani region which in 2015 was facing with the problem of maternal death (MMR of 185/100,000 live birth) and child mortality (under five mortality rate of 4/1000, infant mortality rate of 4/1000 and child mortality rate of 12/1000 live birth) (KOFIH, 2016). This was due to poor quality of the EmONC services. For example, in Kisarawe district only 5% of health care staff received training on EmONC services, among four Health Centers of the District; only one, Masaki Health Center is providing CEmONC services and is partial and not fully comprehensive due to a shortage of trained staff, medical equipment (KOFIH *ibid*). The district hospital also had a shortage of trained staff, medical equipment and supplies. Furthermore, there was no specific fund budgeted for improving EmONC services and this made it impossible to deliver 100% requirement of comprehensive services (KOFIH *ibid*). The program aim at improving the quality of EmONC services by increasing the health facilities that provide BEmONC and CEmONC services whereby 70% of primary health facilities will provide BEmONC services; 50% of health centres and 100% of hospitals will provide CEmONC services by 2021 (KOFIH *ibid*).

The program intends to do is based on WHO recommendations in 2009 whereby the availability of BEmONC services for primary health facilities will be by 70% and CEmONC services for hospital facilities by 100% and health center facilities by 50%. All mentioned criteria would be attained by adequate fund allocation to EmONC services, capacity building to health staff and procurement of medical equipment and supplies (WHO, 2009).

The maternal and neonates deaths have continued to be one of the public health challenges in the district hence there is a need to conduct an evaluation on implementation of the health system strengthening towards improving EmONC services in Kisarawe district.

1.3 Evaluation questions

1.3.1 Main evaluation question.

The main evaluation question:-To what extent did the strengthening of health system improve emergency obstetric and newborn care services at selected health facilities in Kisarawe District?

1.3.2 Specific evaluation questions.

- i. To what extent were funds disbursed, utilized to improve emergency obstetric and newborn care services at selected health facilities in Kisarawe District?
- ii. What is the percentage of the staff trained on emergency obstetric and newborn care services at selected health facilities in Kisarawe District?
- iii. To what extent were medical equipment and supplies procured, utilized on emergency obstetric and newborn care services at selected health facilities in Kisarawe District?
- iv. To what extent were medical supplies procured, utilized on emergency obstetric and newborn care services at selected health facilities in Kisarawe District?
- v. What is the percentage increase of the emergency obstetric and newborn care services at selected health facilities in Kisarawe District?

1.4 Evaluation objectives:

The objective of the study is to evaluate the implementation process of health system strengthening program towards improving emergency obstetric and newborn care services at selected health facilities in Kisarawe District

1.4.1 Specific evaluation objectives

- i. To find out the extent to which funds disbursed were utilized to improve emergency obstetric and newborn care services at selected health facilities in Kisarawe District.
- ii. To find out the percentage of staff trained on emergency obstetric and newborn care services at selected health facilities in Kisarawe District.

- iii. To investigate the medical equipment and supplies procured and utilized for EmONC services at selected health facilities in Kisarawe District.
- iv. To investigate the medical supplies procured and utilized for EmONC services at selected health facilities in Kisarawe District
- v. To find out the percentage increase of the emergency obstetric and newborn care services at selected health facilities in Kisarawe District

1.5 Significance of the evaluation

Emergency obstetric and newborn care services have been implemented since 1997 with intention to reduce maternal and newborn mortality whereby the EmONC services can be improved through health system strengthening. However, efforts to reduce maternal and neonatal mortality in Kisarawe are impeded by major challenges, including a shortage of trained staff and lack of medical equipment and supplies. In addition, inadequate resources such as funds contributed significantly in limiting the efforts towards reduction of maternal and neonates mortality. Kisarawe district has been a major focus of KOFIH health system strengthening towards improvement of the EmONC services program for six years. The Kisarawe district being a pilot district to implement the health system strengthening program towards improving of the EmONC services in the country. This evaluation report will generate information which other districts with the same project would acquire to improve the quality of life and reduce the maternal and neonatal mortality rates in the country as a whole. Further this evaluation aimed to evaluate the implementation process of the health system strengthening towards improving EmONC services in rural settings health facilities where it will discover the core issues which address the reason for existing poor quality of EmONC services from health facilities despite the efforts by the government to improve EmONC services at health facilities. Finally, the evaluation enabled the evaluator to attain a Master of Science in Health Monitoring and Evaluation. It is an essential requirement to undertake an evaluation of a program of your choice as partial fulfillment criteria for acquiring the said qualification. This is the main significance of this evaluation

1.6 Description of the program to be evaluated

1.6.1 Objectives of the program

The objective of the program is to improve health system strengthening through reproductive, maternal, neonatal and child health promotion. This can be achieved by fund disbursement to EmONC services, capacity building to health staff on EmONC services and procurement of medical equipment and supplies for EmONC services.

The program has four outcomes which are-

- a) To increase the percentages from 62.5 to 90 of antenatal care visits by 2021.
- b) To increase the accessibility to health services by 2021
- c) To improve the capacity of human resources for health by 2021
- d) To improve EmONC services by increasing the percentages of health facilities that provide BEmONC and CEmONC services that is 70% of primary health facilities will provide BEmONC; 50% of health centres and 100% of hospitals will provide CEmONC services by 2021

In 2015 Kisarawe district 40%-50% of hospitals and 20% of health center could provide CEmONC services while 20% of primary health facilities provided BEmONC services.

Therefore the program aims to increase services from 20-70% of primary health facilities will provide BEmONC; 20-50% of health centres and 40-100% of hospitals will provide CEmONC services by 2021 (KOFIH, 2016).

Table 1.1 Improvement of EmONC services in program life span

Level of facility	Services	Year 2016	Year 2021
District Hospital	CEmONC	40%	100%
Health centers	CEmONC	20%	50%
Health center	BEmONC	20%	70%
Dispensary	BEmONC	20%	70%

Source KOFIH-2016

1.7 Major strategies

The major strategies of the program are in line with the draft of National Road Map Strategic Plan to accelerate the reduction of maternal and newborn deaths (2015) which are;

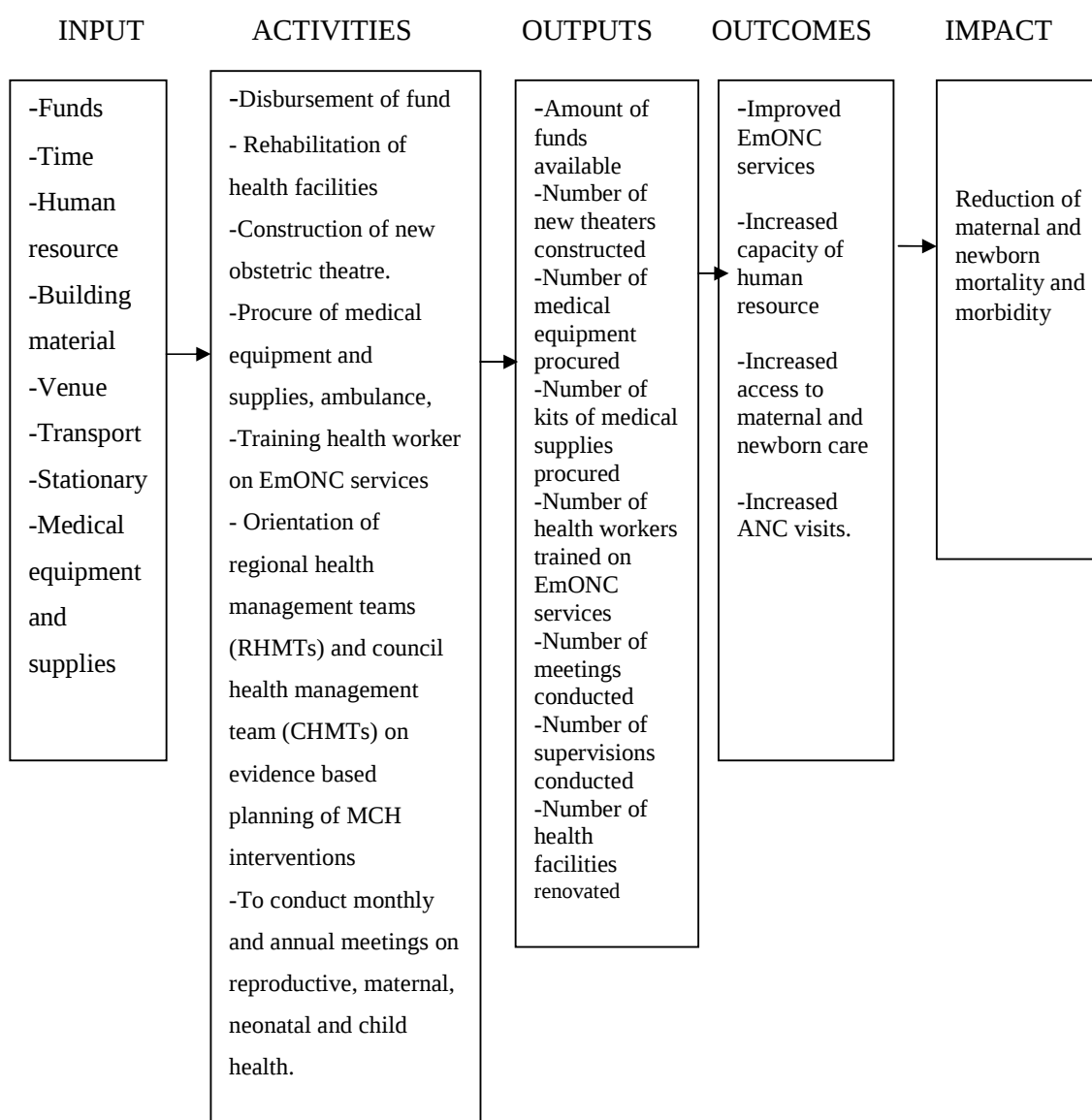
- a) Equitable Access to Quality Health Services.
- b) Promotion of Reproductive Health behavior.
- c) Improving quality of health services.
- d) Advocacy - to change laws/policies.
- e) Strengthening referral System.
- f) Capacity building.
- g) Research, Monitoring and Evaluation.
- h) Collaboration and Partnership.
- i) Financial Resources.

1.8 Program activities and resources

The program aims at health system strengthening through reproductive, maternal, neonatal and child health promotion with total grant of 3,000,000 USD. The activities include:

- a) Disbursement of funds for EmONC services.
- b) Renovation of Labour ward in District hospital.
- c) Construction of new obstetric theatre at Maneromango and Mzenga.
- d) Procure medical equipment and supplies for health facilities in Kisarawe District.
- e) Procure ambulances for district hospital.
- f) Orientation of RHMTs and CHMTs on evidence based planning of MNCH interventions.
- g) Training of health workers on EmONC services.
- h) Supportive supervision of EmONC services.
- i) To conducts quarterly and annual meetings on reproductive, maternal, neonatal and child health.

Table 1.2 Program logic model of implementation of health system strengthening



Source (KOFIH, 2016)

1.9 Stakeholder analysis

Stakeholders are health workers, CHMT and KOFIH foundation that are key implementers of the program who provided information through face to face questionnaire and questionnaires. Stakeholders with decision-making authority after receiving the evaluation report as feedback on implementation of the program are RHMT and PORALG. The last key stakeholder is permanent secretary of MoHCDGEC

for further decision making as a policy maker and controller of public health facilities. Their involvement is as described in table 1.3

Table 1.3 Stakeholder analysis

S/N	Stakeholder	Role in the program	Interest or perspective on the evaluation	Role in evaluation	Means of communication	Level of importance
1	KOFIH	Funder of the program	Effective improving EmONC services	Receiving evaluation feedback	Evaluation report and Face to face questionnaire.	High
2	MoHCDGEC	Supervision at Regional level	Effective improving EmONC services	Providing program document and base line data	Evaluation report and program document.	High
3	PORALG	Supervision at Regional level	Effective improving EmONC services	Receiving evaluation feedback	Evaluation report	High
4	RHMT	Supervision at District level	Effective improving EmONC services	Receiving evaluation feedback	Evaluation report	High
5	CHMT	Supervision at Facility level	Effective improving EmONC services	Interviews and document reviews	Face to face questionnaires, evaluation report Observation checklists and Documentary review	High
6	Health facilities workers	Implementation	Effective improving EmONC services	Questionnaires / document reviews	Self administer questionnaire	High

Source: researcher 2018

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the literatures related to the study. It includes conceptual, theoretical and empirical literature review

2.2 Theoretical Literature Review

Theoretical literature review consists of the definition of key terms, theories of health systems strengthening towards improving EmONC services

2.2.1 Definitions of Key Terms

2.2.1.1 Maternal health

Maternal health refers to the health of women during pregnancy, childbirth and the postpartum period. While motherhood is often a positive and fulfilling experience, for a number of women, it is associated with suffering, ill-health and even death (WHO, 2018).

2.2.1.2 Maternal mortality

Maternal mortality is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (WHO, 2018).

2.2.1.3 Maternal mortality ratio

Maternal mortality ratio (MMR) is the number of resident maternal deaths within 42 days of pregnancy termination due to complications of pregnancy, childbirth, and the puerperium (Latin) in a particular geographical area (country, state, etc.) divided by the total resident live births for the same geographical area for a specified time period, usually a calendar year, multiplied by 100,000 (WHO, 2018).

The higher MMR ratio is mostly contributed to by the low quality of maternal health care services at health facilities, especially in remote areas. This is due to shortage of skilled staff, weak referral systems, lack of access to Emergency Obstetric and newborn Care (EmONC) during obstetric complications, in adequate medical equipment, poor infrastructure and limited resource to finance health services (WHO, 2009)

2.2.1.4 EmONC

The notion of emergency obstetric and newborn care (EmONC) was introduced by WHO, UNFPA and UNICEF in 1997 as an organizing framework for the delivery of evidence-based clinical services, as a significant component of any program to reduce maternal and newborn mortality (Paxton.A, et al, 2005). Emergency obstetric and newborn care (EmONC) refers to life-saving services for maternal and neonatal complications provided by a professional in a health facility which consist of two categories BEmONC and CEmONC. (WHO, 2009).

2.2.1.5 BEmONC

According to WHO (2009) guidelines on Monitoring emergency obstetrical care, basic emergency obstetric and newborn care (BEmONC) is a care provided with skilled staff, especially at the primary level that is dispensary and remote health center (WHO, 2009). The care provided at BEmONC are parenteral antibiotics, uterogenic drugs, parenteral, manual removal of placenta, removal of retained products, performing assisted vaginal delivery (AVD) and performing basic neonatal resuscitation. Improving the availability, accessibility, quality and utilization of EmONC services for the treatment of complications that may arise during pregnancy, childbirth and the postpartum period has proven as one of the effective measures to reduce maternal and neonatal mortality. The guidelines for EmONC services recommended that there should be four health facilities offering basic and one facility offering comprehensive emergency obstetric and neonatal care (WHO, 2009).

2.2.1.6 CEmONC

According to WHO guidelines on monitoring emergency obstetric care, CEmONC (comprehensive emergency obstetric and newborn care) is a care provided

with skilled staff, especially at a level of health center, district hospital and referral hospitals. The facilities which provide CEmONC services should have the following capability of performing all seven signal functions performed by BEmONC services plus two major additional signal functions, which are: Performing Caesarean Section delivery and blood transfusion services (WHO, 2009).

2.2.1.7 Skilled staff

A skilled staff is a qualified health expert such as a midwife, doctor or nurse who has been educated and trained with the ability in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborn (WHO, 2004).

2.2.2 Theories of improving EmONC services

Theories relating to strengthening of the health system will improve emergency obstetric and newborn care services at health facilities.

2.2.2.1 Systems Thinking for Health Systems Strengthening

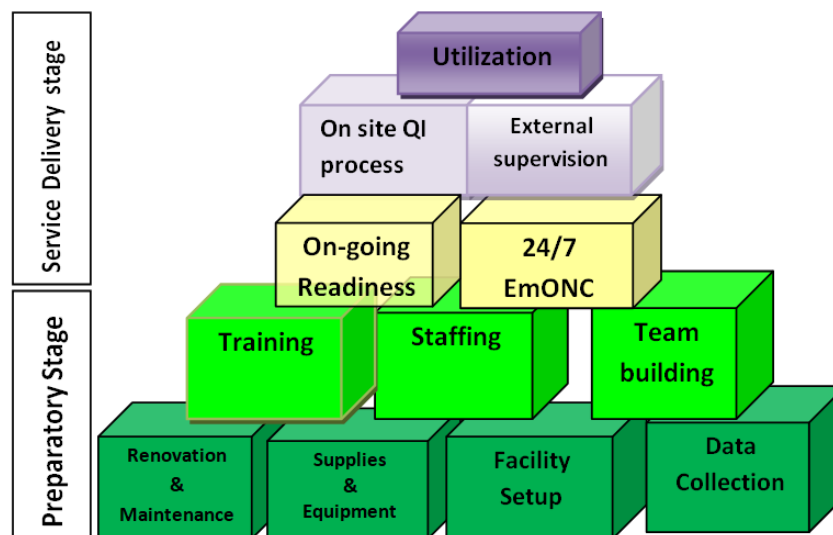
A system thinking states that, failure for a system requires a full system solution and not a short-term remedy (WHO, 2009). Take, for instance, in health system strengthening the responses of many systems so far have been generally considered insufficient. The powerful tool for guiding health investment is through systems research in order to identify where some of the key blockages and challenges lie, and to design sound, synergistic and system-ready interventions targeting those weaknesses. Furthermore, it helps in evaluation and redesigns the interventions of the program (WHO, 2009).

2.2.2.2 Process of implementing EmONC services

The process of implementing EmONC services is divided into two stages in which the first stage involves preparatory stage, and second stage is service delivery. The preparatory stage consists of renovation and maintenance of medical equipment and supplies, facility setup, data collection, training, staffing and team building while the

service-delivery stage consists of availability, utilization and quality of EmONC services (Luwei Pearson, 2005). This is as shown on the following figure 2.1

Figure 2.1 Process of implementing EmONC services



Source: WHO, 2006

2.2.2.3 How to implement EmONC services

Renovation and maintenance involving construction, expansion and rehabilitation of facility to meet the requirement condition to provide EmONC services consist of things like logical flow and barriers to reduce infection, ventilation, water and sanitation, spaces for service delivery as per WHO guidelines and geographical location suitable for target population (WHO, 2009). Medical equipment and supplies essential for EmONC services should be procured utilized as per WHO guidelines stated, the functionality of equipment and availability of it together with supplies like delivery kits, syringes and cannulas, gloves, gowns, forceps, BP machines, suction machines, suction tubes, oxygen cylinders and others as stipulated in the guidelines (Luwei Pearson, 2005). These facilitate availability of signal function for EmONC services. Staff skills, including identifying skills of health care providers and upgrading their competency knowledge on EmONC services such as Life-saving Skills, including manual vacuum aspiration (MVA) help the baby to breath, spinal anaesthesia, resuscitation, administer

of parental, anticonvulsive and antibiotic, performing of a caesarean section and others as per stated in EmONC service guidelines (Luwei Pearson *ibid*).

2.2.2.4 Skills of health-care providers in EmONC services

Deficiency on EmONC services is highly contributed to by lack of knowledge and skills of health care providers. Therefore, in order to ensure improvement on EmONC services, there is a need of training of health care providers. The training should involve orientation, reorientation, regular in-service training and mentorship on EmONC services, especially in managing obstetric and newborn complications. The best way to deliver in-services of EmONC training should be through evidence based learning method (Charles A.Ameh, 2015) for instance, skills and drills approach whereby the technique will be practiced until it becomes automatically performed by the health provider.

There are many packages for training of EmONC Services such as American College of Nurse-Midwives (ACNM), generic Centre for Maternal and Newborn Health at the Liverpool School of Tropical Medicine (CMNH-LSTM), Advanced Life Support in Obstetrics course (ALSO, 1990), Managing Obstetric Emergencies and Trauma (MOET – 1998), Advances in Labour and Risk Management (ALARM – 2003), Essential Surgical Skills with Emphasis on Emergency Maternal and Newborn Health (ESS-EMNH – 2007), Essential Steps in Managing Obstetric Emergencies (ESMOE – 2008) (adapted from CMNH-LSTM EmONC package), Practical Obstetric Multi-Professional Training (PROMPT – 2009), PRONTO (2009), Essential Newborn Care Course (ENCC – 2010), Helping Babies Breathe (HBB – 2011) and Helping Mothers Survive Bleeding after Childbirth (HMS-BAC – 2013). Out of the mentioned packages, the mandatory ones are ALARM, ALSO, MOET and PROMPT. In a well resourced country, the PROMPT package has the additional advantage of training multidisciplinary maternity care teams together within their local settings (Charles A.Ameh *ibid*). Furthermore, Maternity care providers who underwent training on EmONC services have shown significant improvement in knowledge and skills after the training and showed a change in practice and performance, and there was significant ‘up-skilling’ of maternity care providers (Charles A.Ameh *ibid*).

2.3 Empirical literature

Other researchers have written on implementation of the health system strengthening program towards improving EmONC services.

2.3.1 Improving EmONC services

A five-year project conducted to 27 health facilities whereby 4 were hospitals, and 23 were health centers in the province of Sofala in Mozambique. The aim of the program was to improving access, quality and utilization of EmONC services. The research revealed that by improving infrastructure, capacity building, management support such as supervision, logistic for medical equipment and supplies increased the number of EmONC facilities by 78%. Further the number of women who were treated for obstetric complications tripled, with a decline of maternal deaths by half (Santos et al, 2006).

2.3.2 Funds disbursement for EmONC services

A qualitative study conducted by Mkoka 2014 on governing the implementation of EmONC services in Kongwa district revealed that the implementation of EmONC program was accompanied by success and challenges whereby in order to be successful in the implementation of EmONC program, there is a need of multiple partner approaches and for effective partnership, the role of each partner should be well defined in a clear working frame within the health system of partnership (Mkoka et al 2014). The study shows the successes obtained were; increased institutional delivery, increased number of ambulances, training service providers in EmONC services and building a new rural health centre, which provides CEmONC services whereby these were associated with availability of funds and good leadership skills within the team together with partnerships that existed between different actors such as the Non-Governmental Organization (NGO), development partners and local politicians. Furthermore, the challenges were related to governance issues on different levels and included delays in disbursement of funds from the central government, shortages of health workers, unclear mechanisms for accountability, lack of incentives to motivate overburdened staffs and lack of guidelines for partnership development (Mkoka *et al.*, 2014).

2.3.3 Training of health staff on EmONC services

This is an assessment study on skills and drills intervention to improve EmONC services at the state of Karnataka in India, which was conducted by Varghese et al 2014. The study was quasi-experimental, with four interventions and four comparison facilities using case sheet reviews, tests among providers, pre- and post-knowledge, objective structured clinical examinations (OSCEs) and qualitative in-depth interviews. The assessment revealed that knowledge and skills among health care providers had improved significantly in the intervened facilities, but the improvement was not sufficient to translate into better diagnosis and management of complications. Hence there was a need for system-level changes and adequate in-service training would also be essential to improve maternal and newborn care services (Varghese et al, 2016).

2.3.4 Emergency Obstetric and Neonatal Care (EmONC) services availability.

A cross-sectional survey study conducted by Muganyizi et al 2017 in mainland Tanzania and published in 2017 reveals that the distribution of EmONC service is below the optimal level required for geographical location whereby more than half of the region's EmONC service facilities are concentrated in town and at the city center. This is a failure to meet minimum requirement of evenly geographical distribution according to UN standard. (Muganyizi et al, 2017).

2.3.5 EmONC services improvement

A descriptive cross-sectional study of assessing the Signal functions EmONC services as an intervention for reducing maternal mortality was conducted by Tembo et al 2017 between November 2014 and February 2015 at 35 public and private health facilities in Lusaka District Zambia. The study revealed that of the 35 (25.7% private and 74.2% public) health facilities evaluated, only 22 (62.8%) were staffed 24 hours a day, seven days a week and provided obstetric care three months prior to the survey. Overall, 3or (8.6%) and 5or (14.3%) of the health facilities provided Basic and Comprehensive EmONC services, respectively and this implies that there are unmet needs for BEmONC as health facilities fell below the minimum UN standard. In addition, the public health facilities with capacity to perform signal functions should be upgraded to Basic EmONC

status, and efforts should focus on enhancing human-resource capacity in EmONC services with improving infrastructure and supply chain. Further, the Obstetric health needs and international trends must drive policy change (Tembo et al, 2017).

2.3.6 Procurement of Medical equipment and supplies for EmONC services

This is an assessment survey study conducted by Miltenburg et al in 2017 on EmONC services performance to 18 facilities in the rural district of Magu, Tanzania. The 18 facilities were 13 dispensaries, four health centers and one district hospital. The results revealed that none of the facilities could be able to perform at the expected level for emergency obstetric and newborn care because not all required signal functions were provided. This was due to lack of skills to perform signal functions, availability of essential drugs, medical supplies and medical equipment. Hence there is a need for training of health care providers, procurement of essential drugs, medical supplies and medical equipment (Miltenburg et al, 2017).

2.3.7 Experience of improving EmONC Services in Tanzania

An evaluation was conducted by Florina Serbanescu from CDC of practicals and outcomes from the implementation of EmONC program in 2013 in Kigoma Region. The project aimed at decreasing maternal mortality through improved EmONC services. The study revealed that facilities, which received support during the project performed highly in EmONC services compared to the ones did not receive support. For example, the facilities had a generator to ensure the electricity is available 24hours/7days, motor vehicle for referrals, telephone and radio as means of communication were available, use of partographs and active management of the third stage of labour, ability to perform assisted vaginal deliveries (AVD), availability of medical equipment and supplies. All facilities which received the support have shown to perform well in providing EmONC services and had lower maternal deaths (Florina Serbanescu, 2013).

Mkoka et al 2014 conducted a qualitative study to 17 health facility managers: 14 from dispensaries and three from health centers: (two members of the Council Health Management team and one member of the Council Health Service Board). The study revealed that there was the unreliability of obtaining drugs and medical supplies, which

compromised the timely provision of quality EmONC services. Multiple approaches should be used to address challenges within the health system that prevent access to essential drugs and supplies for maternal health. There should be a special focus on improving the governance of the drug delivery system so that it promotes the accountability of key players, transparency in the handling of information and drug funds, and the participation of key stakeholders in decision making over the allocation of locally collected drug funds (Mkoka et al., 2014).

Lastly but not least an assessment conducted by Bakari et al 2014 of availability, utilization and quality of emergency obstetric care in Hai district, located in Kilimanjaro region, northern Tanzania 2014 reveals that two comprehensive EmONC facilities (CEmONC) could provide all the nine required signal functions while none of the basic EmONC facilities (BEmONC) could provide the seven required signal functions. This implied that BEmONC facilities, which are the first level of care to the majority of women and newborns with complications, need to be strengthened to offer the required medical and surgical interventions to save lives. (Bakari et al *ibid*) There is a need to scale-up training of health providers, especially at the lower level (dispensaries and health centres) in EmONC as well as to strength the supply-chain system in order to contribute to attain the national BEmONC coverage of 70% of the required UN standard (Bakari et al *ibid*).

Finally an assessment survey conducted by Miltenburg et al in 2017 on EmONC services performance to 18 facilities at the rural district of Magu in Tanzania. The 18 facilities were 13 dispensaries, four health centers and one district hospital. The results revealed that none of the facilities could be able to perform at the expected level for emergency obstetric and newborn care because not all required signal functions were provided. This was due to lack of skills to perform signal functions, availability of essential drugs, medical supplies and medical equipment. Hence there is a need for training of health care providers, procurement of essential drugs, medical supplies and medical equipment (Miltenburg et al, 2017).

2.3.8 EmONC services in Kisarawe

The Kisarawe district in 2015 had MMR of 185/100,000 live birth (KOFIH, 2016) which reveals that still the district facing with the public health challenge of maternal death. This was due to poor quality of the EmONC services. For example, just 5% of health care staff received training on EmONC services, among four Health Centers of the District; merely one, Masaki Health Center is providing CEmONC services and is partial and not fully comprehensive due to a shortage of trained staff, medical equipment and supplies (KOFIH *ibid*).

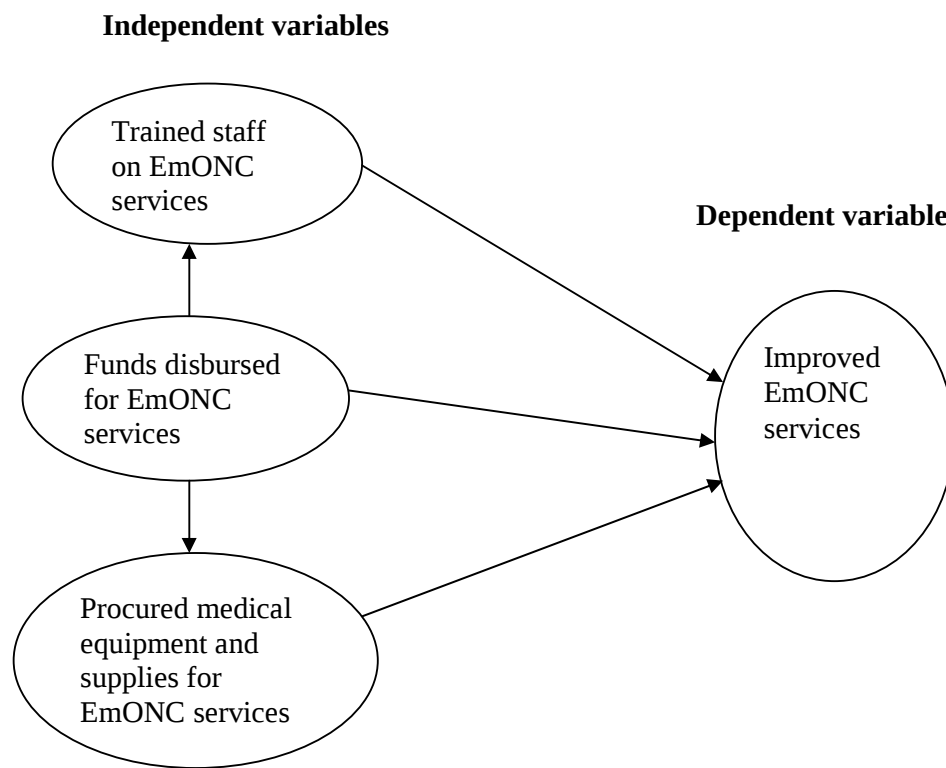
2.4 Synthesis

From the reviewed literature, it is evident that the EmONC program at health facilities have been researched by various scholars namely Florina Serbanescu from CDC 2013 and Muganyizi et al 2017, Bakari et al 2014, Mkoka et al 2014, Miltenburg et al, 2017,etc. However, most scholars have concentrated on impact and practice, for example, Florina Serbanescu from CDC 2013 and Muganyiz et al 2017, where others have directed on availability and utilization, for example, Bakari et al 2014, governing on implementation of EmONC services by Mkoka et al 2014 and EmONC services performance by Miltenburg et al in 2017. Several scholars (Muganyizi et al 2017, Bakari et al 2014, Mkoka et al 2014, Miltenburg et al, 2017) have studied the implementation of such programs on health system strengthening on improving emergency obstetric and newborn care services. However, maternal and neonatal mortality continued to be a public health problem in spite of efforts done to improve EmONC services with limited information why the problem keeps on exist. The majority of researchers, they did not put much emphasis on the implementation process of the health system strengthening program towards improving EmONC services to find out whether the implementation went on as per its design, and the set objectives realised. The results of this study will uncover knowledge, which will be useful to stakeholders in knowing whether the program is being implemented as per set design to produce desired results.

2.5 Conceptual framework

From the literature review, the relationship between independent and dependent variables in the implementation of health system strengthening toward the improvement EmONC services a case of selected health facilities is conceptualized as follows in the figure below;

Figure 2.2 Conceptual framework



Source: Researcher 2018

CHAPTER THREE

EVALUATION METHODOLOGY

3.1 Introduction

This chapter presents the methodology which was used to evaluate the implementation process of the health system strengthening program towards improving emergency obstetric and newborn care services. The chapter contains study area, population framework, targeted population, sample size determination and sampling techniques, data collection methods and ethical consideration.

3.2 Evaluation approach

The evaluation approach was formative evaluation whereby the ongoing process of the implementation of the health system strengthening through reproductive, maternal, neonatal and child health promotion KOFIH program was assessed. The aim of the study was to learn the implementation process of the program by finding out if the program is implemented as it was designed. The evaluation result was meant to improve the program outcome and redesign of future programs.

3.3 Evaluation design

The study design was a cross-sectional descriptive study whereby the situation of EmONC services in Kisarawe district at a specific point in time was assessed. A descriptive study design was used because it is a feasible method to observe the phenomenon in a completely natural environment. Descriptive analysis methods such as bar charts, histograms, line charts and percentages were used. The method employed in data collection was mixed method data collections in order to enhance generalization and transferability of the evaluation study findings.

3.4 Evaluation Period

The evaluation period started in January 2017 whereby the topic was selected and developed. The data collection started on 1st March 2018 to 30th May 2018 after

proposal submission and acceptance. The analysis and report writing followed, and the submission were done by 3rd of August 2018.

3.5 Study area

The evaluation was conducted at Kisarawe District in Pwani region. Kisarawe District was chosen to be the study area as it is a pilot district benefiting from the program being funded by KOFIH. Moreover, it is easily accessible to the researcher compared to the other districts which are also benefiting from the program.

3.6 Target population

The target population was all health facilities in Kisarawe district. The Kisarawe district health facilities were chosen due to easy accessibility by the researcher compared to other districts.

3.7 Study population

The study population was all publicly owned EmONC health facilities in Kisarawe District.

3.8 Units of analysis

The units of analysis were top level officials who managed the program that were KOFIH project coordinator, District Medical officer and District coordinator of the program, questionnaire to 100 health staff, documentary review and observation checklist to 15 health facilities was applied to enhance rigor quality of data accuracy. The district hospital, four health centers and 10 dispensaries were selected through non-probability method of purposive sampling since they met inclusion criteria. The selection of the health workers at selected health facilities was through non-probability method of convenience sampling whereby the researcher distributed the questionnaires to only staff that were available at working place during at the time, the researcher was collecting data.

3.9 Variables and their measurements

Table 3.1 Variables and their measurements

Variable	Measurements	Source of data
Independent		
Funds disbursed	• Were there funds budgeted for Improving EmONC services? • Which quarter of financial year did you receive funds? • Which facilities were benefiting from the program? • How were the funds used for? • Were all activities implemented? • Where the funds adequate to improve EmONC services?	Face to face questionnaire with 3 officials who are KOFIH representative, DMO and district coordinator.
Trained staff	• Was there any training on EmONC services conducted? • Where trainees selected from units relating to maternal and newborn care? • Was the guidelines from the WHO/ministry of health adhered to?	• Face to face questionnaire with 3 officials who are KOFIH representative, DMO and district coordinator. • Questionnaires to 100 health staff.
Procured medical equipment	• Number of medical equipment procured • Number of medical equipment utilized on EmONC services	Observations checklist and physical verification at facilities.
Procured medical supplies	• Number of medical supplies procured • Number of medical supplies utilized on EmONC services	Observations checklist and physical verification at facilities
Dependent Variable		
Improved EmONC services	• Proportion of pregnant mothers delivered in EmONC facilities • Proportion of met need for EmONC services • Proportion of pregnant mothers who received signal function of EmONC services during delivery • Caesarean section as a proportion of all births.	DHIS book 12 (delivery book)

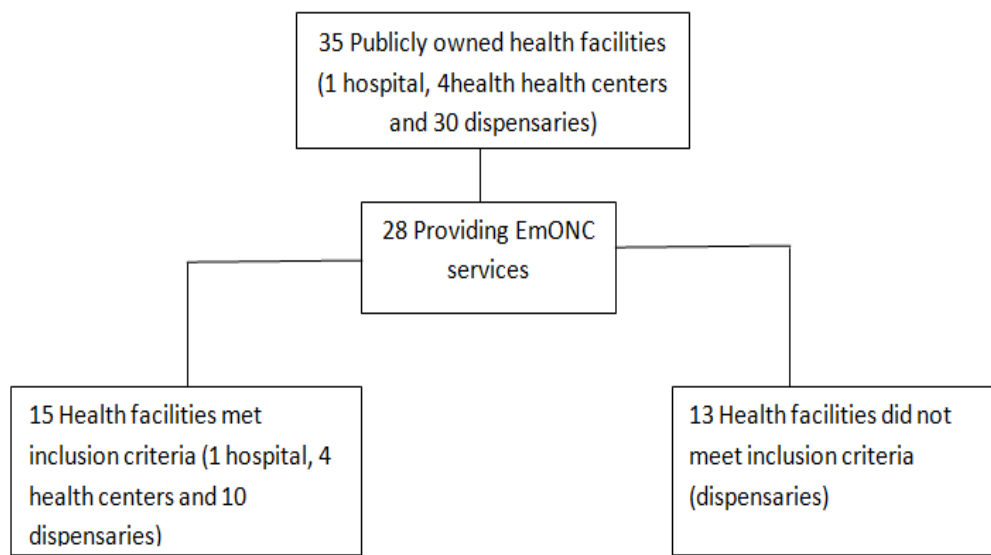
Source: Researcher 2018

3.10 Sample size

The sample size of 15 health facilities for this study was determined from a sampling frame of 35 health facilities. The selection of health facilities considered for inclusion criteria was the facility should be a publicly owned, providing EmONC services and agreed to take part in the evaluation study. Therefore, out of 35 health facilities, only 15

health facilities met the inclusion criteria and the cascade on how 15 health facilities were obtained is demonstrated in the figure 3.1 below:

Figure 3.1 Cascade of the health facilities included in sample size



Source: Researcher 2018

3.11 Sampling procedure/technique

Sampling technique used was non-probability sampling. The district hospital, four health centers and 10 dispensaries were selected through non-probability method of purposive sampling since they met inclusion criteria. The selection of the health workers at selected health facilities was through non-probability method of convenience sampling whereby the researcher distribute the questionnaire to only staff who were available at working place during the time of data collection, while in the selection of three top officials, non-probability method of purposive sampling was used since these were the key implementers of the program at different level.

3.12 Inclusion and exclusion criteria

3.12.1 Inclusion criteria:

The facilities which had EMONC services, and they were publicly owned.

3.12.2 Exclusion criteria:

The facilities which were not willing to take part in the evaluation study.

3.13 Types and source of data

Primary and secondary sources were used in order to answer the evaluation questions. Primary data was raw data collected from the field through face to face questionnaires (e.g number of facilities received fund, number of trained staff) and questionnaire (e.g number of staff trained) while secondary data was from documentary reviews such as internet (HMIS reports) journal (scientific report on EmONC services), books (Mtuha book no 12).

3.14 Data collection method

3.14.1 Face to face questionnaires

In order to explore in-depth, information on how the implementation of health system strengthening toward improving of EmONC services, a face to face questionnaires was used to collect information on funds disbursement and training of the health workers. The face to face questionnaires had three respondents which were top level officials who manage the program that are KOFIH project coordinator, District Medical officer and District coordinator of the program. The three respondents were selected through non probability method of purposive sampling whereby these respondents were the only ones who could provide information on funds disbursement and utilization. The face to face questionnaire was conducted by researcher.

3.14.2 Questionnaires

The questionnaire is an effective data-collection tool when uniform information is required from a large number of respondents. The questionnaire was distributed to 100 respondents out of 150 health-workers in maternal and new-born care service

departments at selected facilities in Kisarawe District. The selection of the health workers at selected health facilities was through non-probability method of convenience sampling whereby the researcher gave the questionnaire to only staff that were available at the workplace.

3.14.3 Observation checklist

The researcher used WHO checklist tool to assess the procured medical equipment and supplies for EmONC services in this study. On observation checklist if the equipment or supply was procured, functioning and located in the required physical location scored 1 and if not 0. The observation check list was conducted by researcher.

3.14.4 Documentary Review

The researcher reviewed different documents concerning the implementation of EmONC services. These documents were performance on EmONC services by selected health facilities facilities.

3.15 Validity issues

The reliability and validity of data was insured by researcher conducted pre-testing of data-collection tool to the population which had a similar character as the target population. WHO readymade observation checklist was used. The questionnaires and structured face to face questionnaire were pre-tested at Kibiti district since it has a similar program like Kisarawe. Data cleaning was done during data-collection period and re-checked every evening to ensure completeness and where possible addressing any missing information.

3.16 Data management and analysis methods

The collected data was entered to an excel workbook and organized. Later on the data was coded, cleaned, compared and categorized based on evaluation questions. Thereafter, analysis was done with the aid of STATA software pack 13. Lastly, the quantitative data were analyzed and presented using descriptive statistics such as bar chart, line chart and percentages for presentation and interpretation.

3.17 Ethical Issues

The approval letter and research clearance from Mzumbe University was circulated to KOFIH office and Kisarawe District Executive office, where the permission to collect data granted. The respondents before engaged in the study were explained on the aim of the study and ensured that the information provided would be protected.

CHAPTER FOUR

FINDINGS AND ANALYSIS

4.1 Introduction

This chapter presents the findings and analysis of data collected when evaluating the implementation process of health system strengthening program towards improving emergency obstetric and newborn care services at selected health facilities in Kisarawe District. The quantitative data were obtained, analysed, and presented using descriptive statistics such as bar charts, line charts, histograms and percentages.

4.2 Demographic Characteristics

The researcher described the level of the facility, gender, carder, and department of health workers as characteristics of respondents which were considered likely to have an effect on evaluating the implementation process of health system strengthening program towards improving emergency obstetric and newborn care services at selected health facilities in Kisarawe District. The findings were as follows in table 4.1;

Table 4.1 Demographic characteristics

Variables	Groups	Frequency	Percent
Gender	Male	33	33%
	Female	67	67%
Carders	Clinician	33	33%
	Nurse	64	64%
	M/Attendants	3	3%

Source: field data 2018

4.3 Major Findings

The aim of this section was to show the major findings in the relation to the objectives of this study. The findings were collected through face to face questionnaires, questionnaires, documentary review and observation checklist. In this study, the mixed methods of data collection was to enhance the rigor of quality data accuracy that is the face to face structure interviews intended to know in detail about the implementation of

the program while the questionnaires, documentary review and observation checklist were applied to validate the information from face to face questionnaires.

4.3.1 Funds disbursed for EmONC services

The process of implementation of health system strengthening program toward improving emergency obstetrics and newborn care services at selected health facilities in Kisarawe started with situational analysis of the situation of the health facilities, afterwards strategies on how to implement and allocate required resources, mainly funds to implementing it. Funds disbursed according to the budget and timely. Then implementation of the program follows as it was designed. However, the funds were disbursed on quarterly basis and implementation process conducted as per planned activity in financial year of 2016/2017. The rationale behind funds disbursement was to address the financial and resource constraints the district was facing in implementing health system strengthening toward improving emergency obstetrics and newborn care services at selected health facilities. The findings obtained through face to face questionnaire with three top level officials who managed the program who were the KOFIH project Coordinator, the District Medical Officer and the District Coordinator of the program. The three respondents were selected through non probability method of convenience sampling whereby these respondents were the only one who could provide information on funds disbursement and utilization.

4.3.1.1 Funds budgeted and received for EmONC services

The researcher started by evaluating whether the district had budgeted, received and utilized funds for health system strengthening toward improving emergency obstetrics and newborn care services at selected health facilities, with the support from KOFIH.

The findings were obtained through face to face structure interview with top level officials who manage the program show that all the respondents agreed that there was a budget allocated for health system strengthening toward improving EmONC services at selected health facilities in Kisarawe which was Tsh 250,543,300 in total. However, the findings from the respondents reveal that they received funds late from the regional

administrative secretary office in two instalments during the 3rd and 4th quarter of the financial year. One of the respondents was quoted saying:

“We received funds during the 3rd quarter amounting to Tsh183, 910,000 and during the 4th quarter amounting Tsh21, 144,330 consecutively which was late disbursed from regional administrative office.”...R1

4.3.1.2 The facilities which benefited from the program

The researcher was interested in knowing which facilities benefited from the program in the first financial year of implementation that is 2016/2017. The number and level of facilities which were benefiting from the program. The findings reveal that only four of health facilities are benefited from the program. These were the District hospital, Maneromango health center, Masaki health center and Mzenga Health center.

“Hospital, Maneromango health center and Masaki health center”...R1

Another respondent said:

“Hospital, Maneromango health center , Masaki health center and Mzenga health center ”...R3

4.3.1.3 Utilization of funds for improving EmONC services

The researcher was interested to know how funds were used for improving EmONC services at selected health facilities. The findings from all respondents revealed that funds were used in training of health staff on EmONC services, procurement of medical equipment and supplies for EmONC services. The respondents were able to produce attendance register and delivery notes for procured supplies and equipment. One respondent was quoted saying:

“Procurement of medical equipment for EmONC services and procurement of medical supplies for EmONC services”...R2

4.3.1.4 The program activities implementation

The researcher was interested in knowing whether there were any funds which were carried forward due to the non- implementation of budgeted activities in the financial year 2016/ 2017. The finding from all respondents revealed that there were carried over funds of Tsh 81,297,469 which were for procurement of ambulance at Kisarawe District hospital and the reason behind was the delay in the tendering procedure and the late disbursement of funds from the regional administrative secretary office. One respondent was quoted saying:

“Tsh 81,297,469, which was for procurement of ambulance to the District hospital.”.....R2

Another respondent said:

“Carried over activities were due to the delay in disbursement of funds from the regional administrative secretary office and the tendering procedure, but we managed to implement 95% of the planned activities.”R3

4.3.1.5 The adequacy of funds for improving EmONC services

The researcher was interested to find out if the funds were sufficient to improve EmONC services in the financial years 2016/2017 and 2017/2018. The findings from all the respondents revealed that the funds were not adequate, and this made it not possible to roll out in the program into all other health facilities in Kisarawe district. One of the respondents was quoted saying:

“Not adequate”R3

Another respondent said:

“We started with four health facilities first because of availability of funds, the rest would follow in the coming financial years”R1

4.3.2 Trained staff for EmONC services

The process of implementation of health system strengthening program toward improving emergency obstetrics and newborn care services at selected health facilities in Kisarawe required staff to be capacitated by receiving training on EmONC services. The training of staff conducted to all EmONC facilities, especially health workers that are in RCH services from antenatal, postnatal and paediatric units. Training provided according to the Ministry of Health and WHO guidelines whereby the number of trainees would depend on funds allocated and received. However, the trainings of BEmONC and CEmONC services as it was stipulated in the program design. The rationale behind training of staff was to address the problem of lack of skilled staff to provide EmONC services which the district was facing.

The researcher started by evaluating whether the health workers received training on EmONC services at selected health facilities. The findings were obtained through face to face questionnaire and questionnaires. The face to face questionnaire was with three top level officials who managed the program that were KOFIH project Coordinator, District Medical Officer and District Coordinator of the program while the questionnaires were given to 100 of the health workers who were working at maternal and newborn services departments at selected facilities in Kisarawe District. The selected health facilities were 15 whereby one was District hospital, four health centers (in which were Maneromango, Masaki, Mzenga and Chole) and 10 dispensaries.

4.3.2.1 Training of staff on EmONC services

The researcher started with the question of whether there were any training of EmONC services conducted to health staff in facilities during the financial year 2016/2017. The results revealed that there was training to health staff during the financial year 2016/2017.

Face to face questionnaire to three officials who managed the program responded;

“Yes”

Moreover, the researcher was interested to know the percentage of staff who received training on EmONC services in the facilities at the moment. The results from three

officials reveal that the percentages of staff who had received training on EmONC services in the facilities at the moment were 15%. All respondents answered;

“15%”

Further, the researcher wanted to know whether all facilities had staff that were received training on BEmONC services and the percentages of facilities without staff that had received training on BEmONC Services. The results from the three officials revealed that no facilities had staff who had received training on BEmONC services and 100 percentages of facilities were without staff that had received training on BEmONC services. All of the respondents answered;

“No”

“100%”

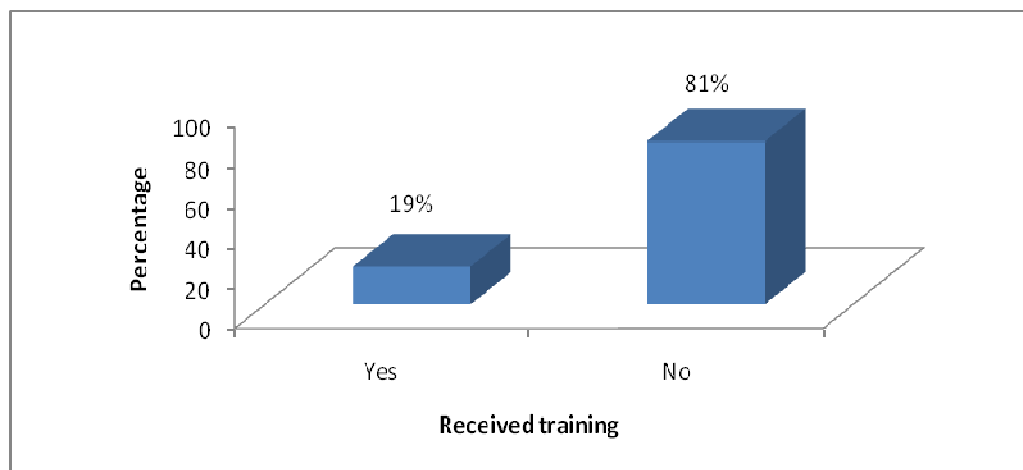
Furthermore, the researcher was interested to know whether all health centers and hospitals had staff that had received training on CEmONC services and percentages of health centres and hospitals with such staff. The results from three officials revealed that not all health centers and hospitals had staff who had received training on CEmONC services. Only Kisarawe District Hospital and Masaki Health Center had such staff while 70 percentages of health centres had staff that had not received training on CEmONC services. All of the respondents answered;

“Not all, only Kisarawe Distric Hospital and Masaki Health Center had staff who had received training on CEmONC services”

“70%”.

Finally in the questionnaires which were given to the 100 respondents from maternal and newborn services departments at selected facilities revealed the following results; Only 19% of the respondents out of 100 respondents were working at maternal and newborn service departments at selected facilities which had received training on EmONC services while 81% had not yet received training on EmONC services. This is as shown on the following figure 4.1;

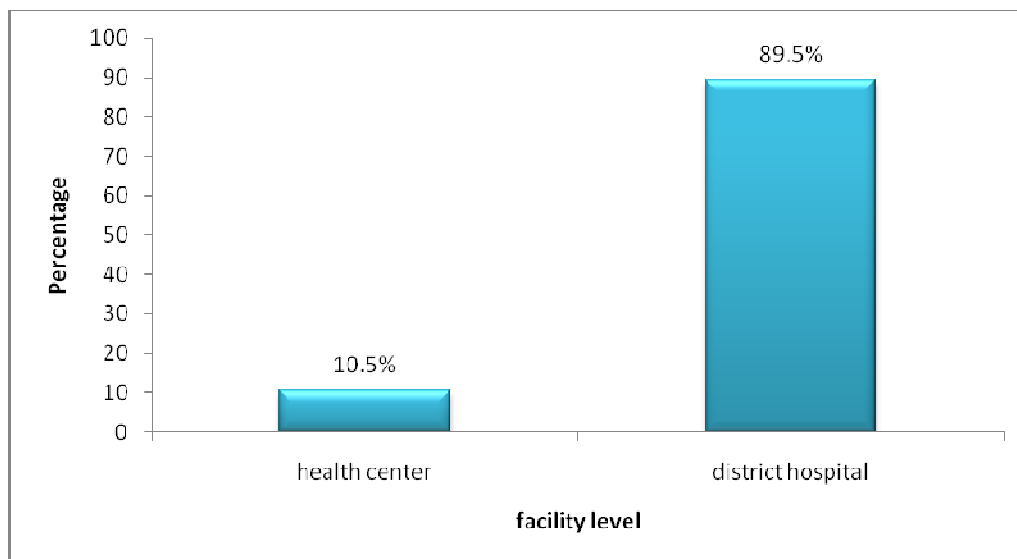
Figure 4.1 Distribution of respondents who received EmONC services training.



Source: Field data 2018

Additionally, out of 19% of respondents who said they had received training 10.5% which equivalent to 2 respondents were from health centers and 89.5% which is equivalent to 17 respondents were from district hospital. This is as shown on figure 4.2 below;

Figure 4.2 Distribution of respondents who received EmONC services training by facility level



Source: Field data 2018

4.3.2.2 The trainee staff selection

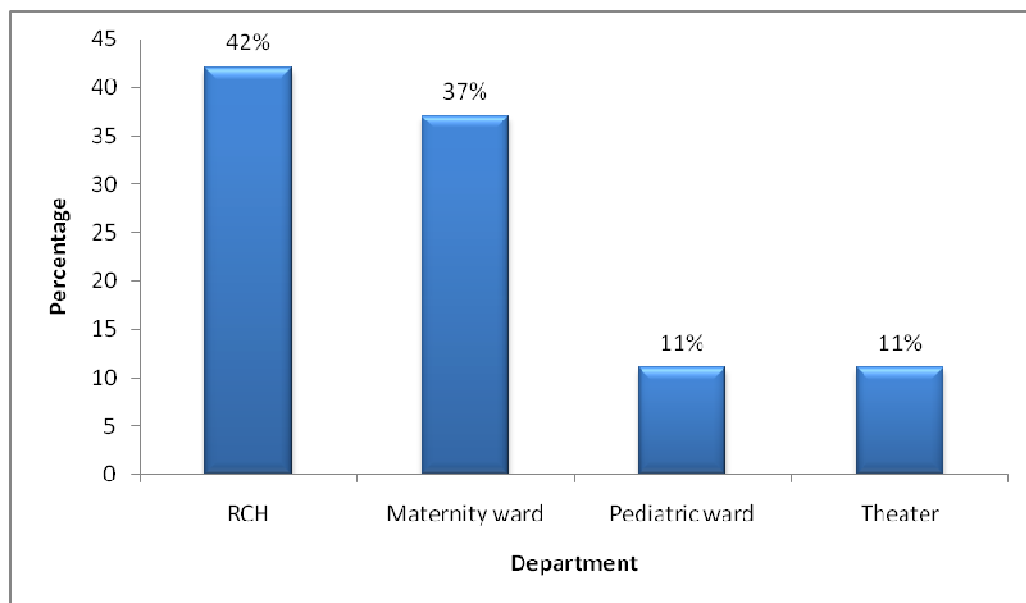
The researcher assessed whether the trainees were selected from the departments relating to maternal and newborn care services. The essence of this question was to find out if the selection of the participants considers all departments of maternal and newborn services. The results revealed that trainees were selected from the units relating to maternal and newborn care departments.

Face to face questionnaire from three officials who managed the program responded; “Yes”

Also in the questionnaires which were given to the 100 respondents from maternal and newborn services departments at selected facilities reveals the following results;

The respondents who had received training on EmONC services were 42% from Reproductive child health clinic department, 37% from maternity ward, 11% of respondents were from paediatric ward and 11% of respondents were from theatre. This is as shown on figure 4.3 below;

Figure 4.3 Distribution of respondents who received EmONC services training by the type of department



Source: Field data 2018

4.3.2.3 The adherence to WHO/ministry of health guidelines during training.

The researcher assessed whether the guidelines from the WHO/ministry of health were adhered to during training. The essence of this question was to find out if the trainings were up to WHO/ministry of health standards. According to WHO/ministry of health guidelines the required number of days for EmONC services training is 14 days or more and type of EmONC services for health center and district hospital is CEmONC while for dispensaries, it is BEmONC . The results revealed that guidelines from the WHO/ministry of health were adhered during training.

Face to face questionnaire from three officials who managed the program responded;

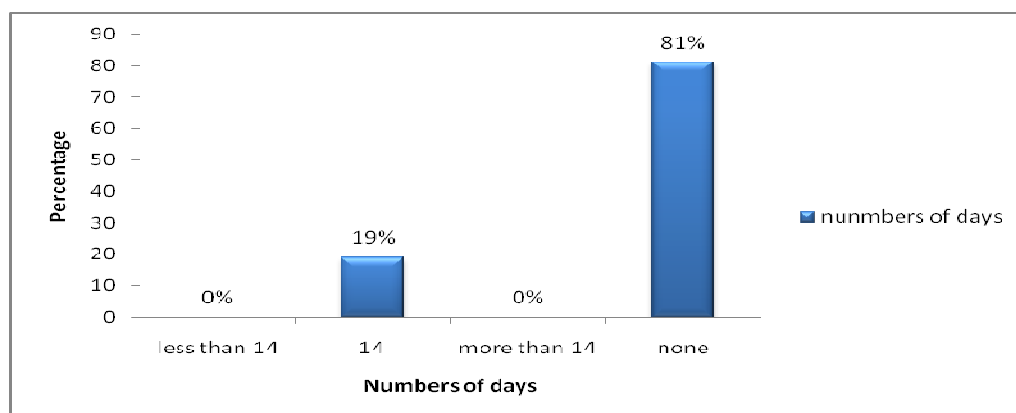
“Yes”

“Health workers received training on CEmONC services for 14 days”

Additionally, on the questionnaires which were given to the 100 respondents from maternal and newborn services departments at selected facilities revealed the following results;

Out of 100 respondents 19% of the respondents responded that the training took 14 days while 81% did not respond and there were no respondents who responded that the train took less than 14days or more than 14 days. This is as shown on the following figure 4.4;

Figure 4.4 Distribution of respondents on numbers of days the training took.

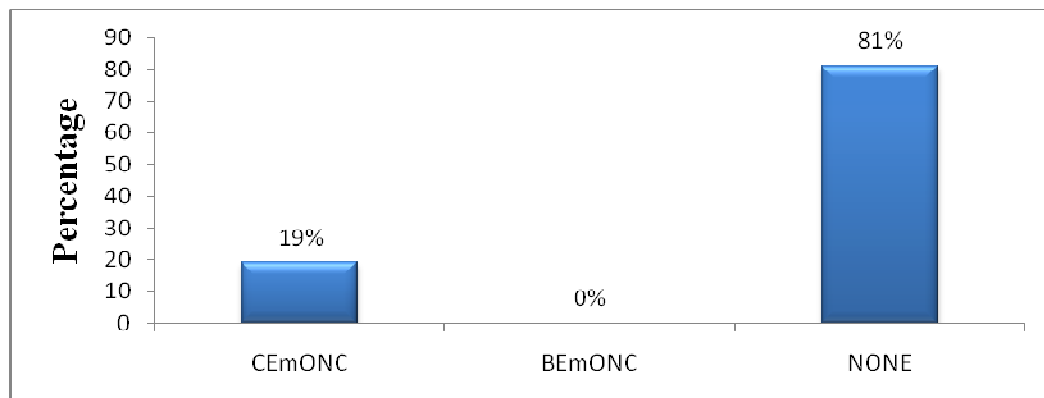


Source: Field data 2018

Further the respondents from maternal and newborn services departments at selected facilities were asked if the training they received on EmONC Services was on BEmONC or CEmONC services. The essence of this question was to find out the type of EmONC services training the staff received and sees if the implementation is as per the program expectation. The results were as follows;

Out of 100 respondents 19% of respondents had received CEmONC services training while no respondents had received BEmONC services training and 81% of respondents had neither received CEmONC nor BEmONC services training. This is as shown on the following figure 4.5;

Figure 4.5 The type of EmONC services training received.



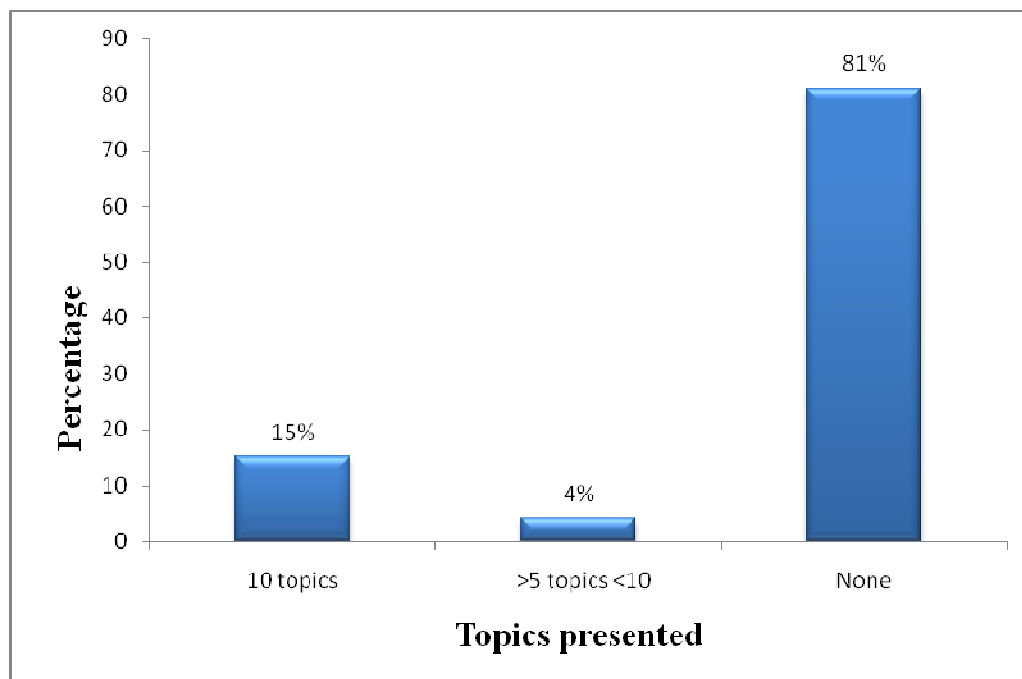
Source: Field data 2018

Furthermore the researcher was interested to know which topics were presented during the training on EmONC services. The essence of this question was to find out the extent to which the guidelines of WHO/ministry of health were adhered to during training and confirmation of the participation of the respondents on EmONC services training together with the evaluation level of understanding of respondents. The question required respondents to put 1 if the topic was presented and 0 if it was not presented. The topics were as follows; resuscitation of mother and newborn ,Early newborn care (prematurity, sepsis, hypoglycaemia and hypothermia), Communication (triage and referral), management of shock and the unconscious patient, management of severe pre-eclampsia and eclampsia, prevention and treatment of obstetric haemorrhage , prevention of obstructed labour, diagnosis and treatment of pregnancy-related Sepsis ,assisted vaginal delivery-vacuum delivery and Other common obstetric emergencies as

(breech delivery, cord prolapsed, twin delivery and retained placenta). The results were as follows;

Out of 100 respondents 15 percent of the respondents managed to pick all ten topics while 4 percent of the respondents managed to pick between 5 to less than 10 topics and 81 percent did not pick any topic from the choice provided. This is as shown on the following figure 4.6;

Figure 4.6 Figure 4.5 Numbers of topics presented during EmONC services training.

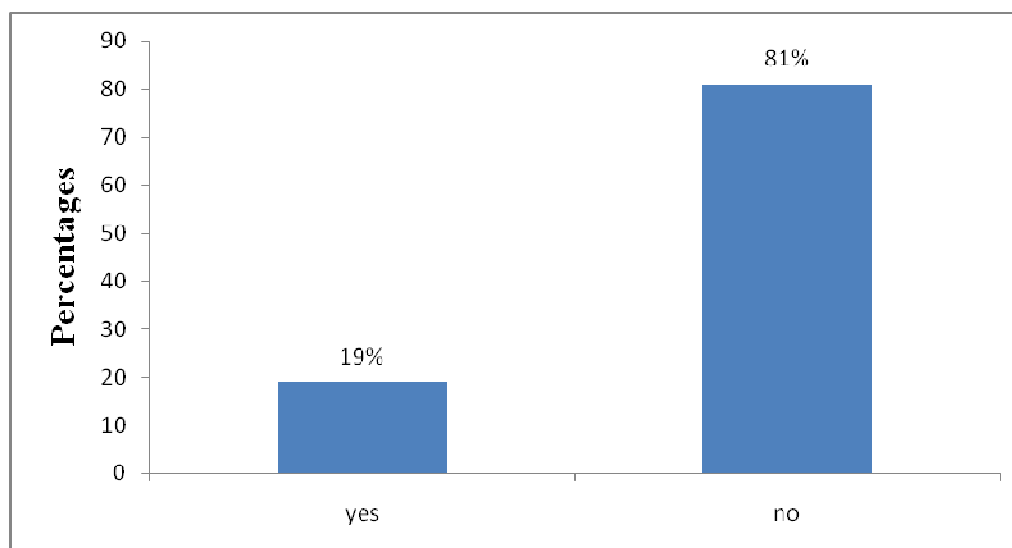


Source: Field data 2018

Finally, the researcher was interested to know if there were practical sessions during the training of EmONC services and the type of practical the respondent practice during the training. The essence of this was to find out the extent to which the health staff were assessed after training and during the training and if the guidelines of WHO/ministry of health were adhered to. There were 13 types of practical that the trainee should undergo during a training session and these practical are partograph form filling, per vaginal examination, fetal heart examination using fetoscope, Pelvic examination, blood pressure measurement, APGAR scoring, helping the baby to breath, administration of

magnesium sulphate, administration of lumbar spinal anaesthesia, adult resuscitation, MVA and vaginal tear repair. The respondents were instructed to circle the types of practicals they had. The results were as follows; Out of 100 respondents 19% of the respondents responded that they had practical session during EmONC service training and 81% responded that they did not hold practical session. This is as shown on the following figure 4.7;

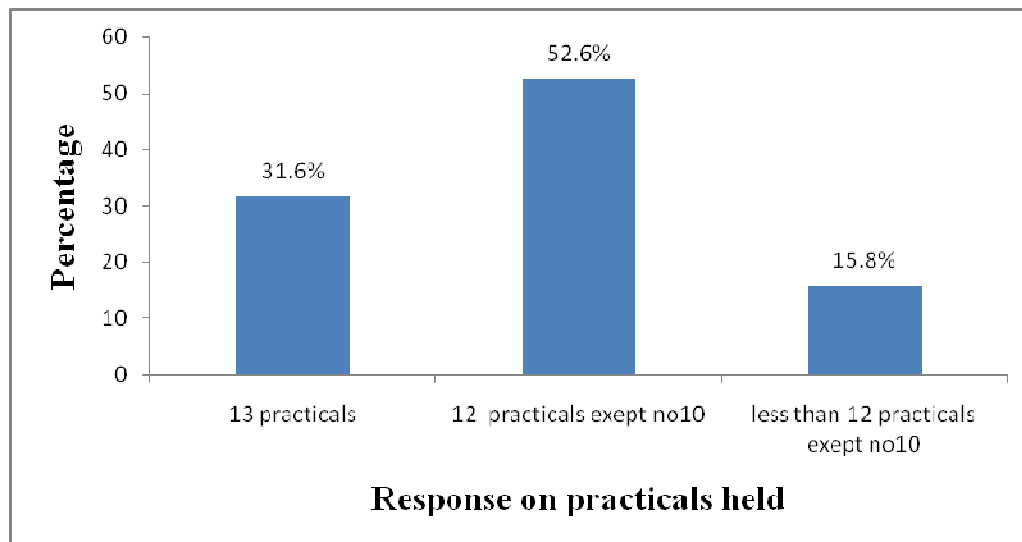
Figure 4.7 Respondents who had practical sessions during training.



Source: Field data 2018

Additionally, out of 19% of 100 respondents who said they had practical sessions during training 31.6% of them said that they had all 13 practicals during the training while 52.6% said that they had 12 practicals except number 10 which was administration of lumbar spinal anaesthesia and 15.8% said that they had less than 12 practicals except number 10. This is as shown on the following figure 4.8;

Figure 4.8 Type of practical held during training.



Source: Field data 2018

4.3.3 Procured medical equipment for EmONC services

One of the interventions to improve EmONC services was to procure medical equipment which would address the problem of lack of medical equipment that the district was facing whereby this problem made the district to have lower percentages of EmONC services at its facilities in which eventually would improve emergency obstetrics and newborn care services at selected health facilities in Kisarawe. Further the researcher was interested to know if the equipment was procured and utilized on EmONC services. In addition, the researcher used observation checklist from WHO/ministry of health to verify if equipments were procured, and the physical location of the equipment and if it was functioning.

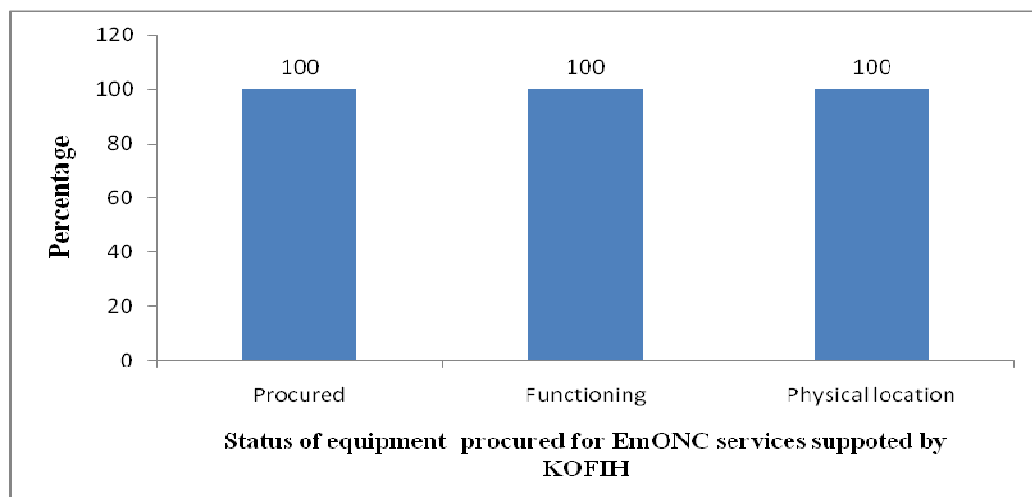
On observation checklist the equipment was procured, functioning and if it was located in the required physical location it scored 1 and if not it scored 0. The results were as follows:

4.3.3.1 The medical equipment procured for EmONC services according to KOFIH budget 2016/2017

The researcher used observation checklist from WHO/ministry of health to verify if equipment were procured for EmONC services according to KOFIH budget 2016/2017. The results were as follows;

100% of medical equipments were procured according to the budget set aside by KOFIH whereby out of 100% of medical equipment procured, 100% were functioning and 100% were located in the required physical location. This is as shown on the following figure 4.9;

Figure 4.9 Medical equipments procured for EmONC services according to KOFIH budget 2016/2017

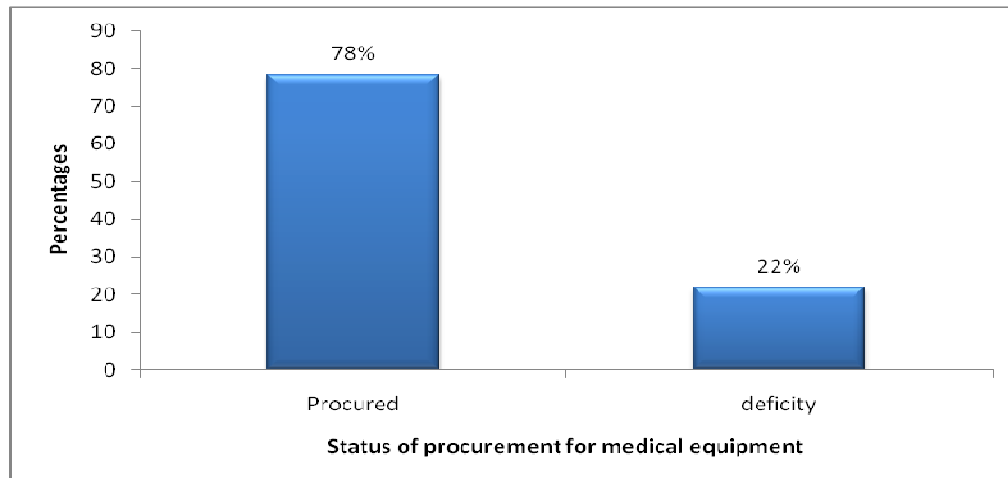


Source: Field data 2018

Out of the list of WHO/ministry of the health requirements for medical equipment of EmONC services there was a deficit, and this is demonstrated as follows;

The program could procure 78% of the required equipment and there was a deficit of 22%. This is as shown on the following figure 4.10;

Figure 4.10 Status of procured medical equipment for EmONC service according to WHO guidelines



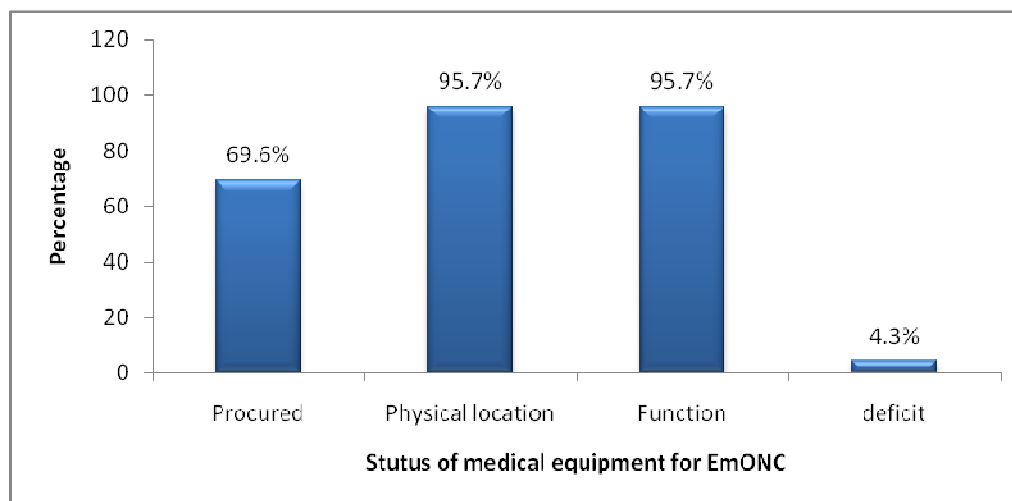
Source: Field data 2018

4.3.3.2 The medical equipment procured was utilized for EmONC services at selected health facilities

The procurement and utilization of medical equipment for EmONC services were assessed by looking over the situation of availability of the equipment according to the required location in health facilities at the district hospital, health centers and dispensaries. The results were as follows;

Kisarawe District Hospital had a deficit of 4% of medical equipment for EmONC services whereby the program had managed to support the district hospital to procure 69.6% medical equipment required, and the facility had 95.7% on availability of equipment that is in a sense of physical location and function-ability of the equipment. This is as shown on the following figure 4.11;

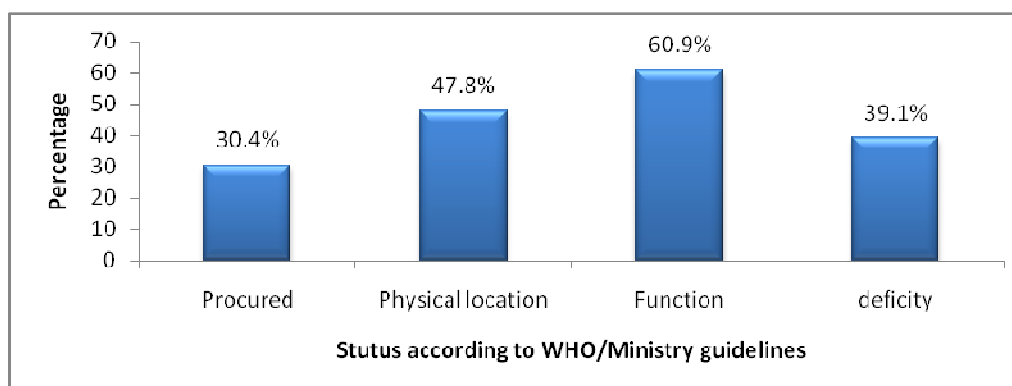
Figure 4.11 Status of medical equipment for EmONC services according to WHO/ministry of health guidelines at Kisarawe District Hospital



Source: Field data 2018

Masaki Health Center had a deficit of 39.1% of medical equipment for EmONC services whereby the program had managed to support the facility to procure 30.4% of medical equipment required, and the health center had 60.9% on availability of equipment and function-ability and 47.8% physical location of the equipment at required location. This is as shown on the following figure 4.12;

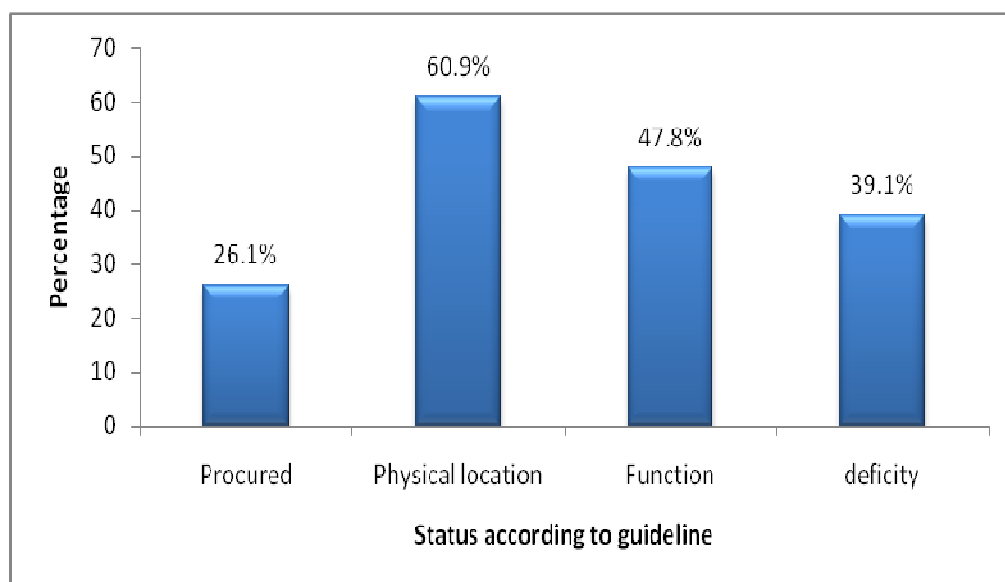
Figure 4.12 Status of medical equipment for EmONC services according to WHO/ministry of health guidelines in Masaki Health Center



Source: Field data 2018

Maneromango health center had a deficit of 39.1% of medical equipment for EmONC services whereby the program had managed to support the facility to procure 26.1% of medical equipment required, and the health center had 60.9% on availability of equipment and function-ability and 47.8% physical location of the equipment at required location. This is as shown on figure 4.13 below;

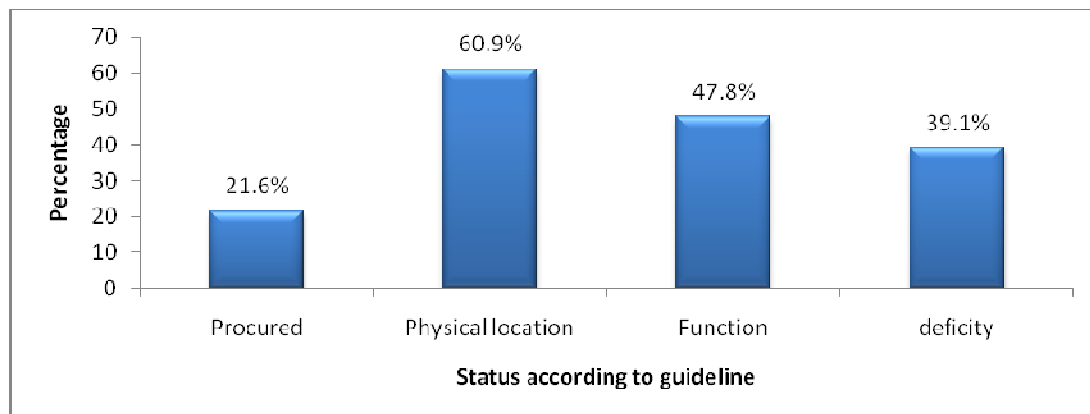
Figure 4.13 Status of medical equipment for EmONC services according to WHO/ministry of health guidelines in Maneromango health center



Source: Field data 2018

Mzenga health center had a deficit of 39.1% of medical equipment for EmONC services whereby the program had managed to support the facility to procure 26.1% of medical equipment required, and the health center had 60.9% on availability of equipment and function-ability and 47.8% physical location of the equipment at the required location. This is as shown on the following figure 4.14;

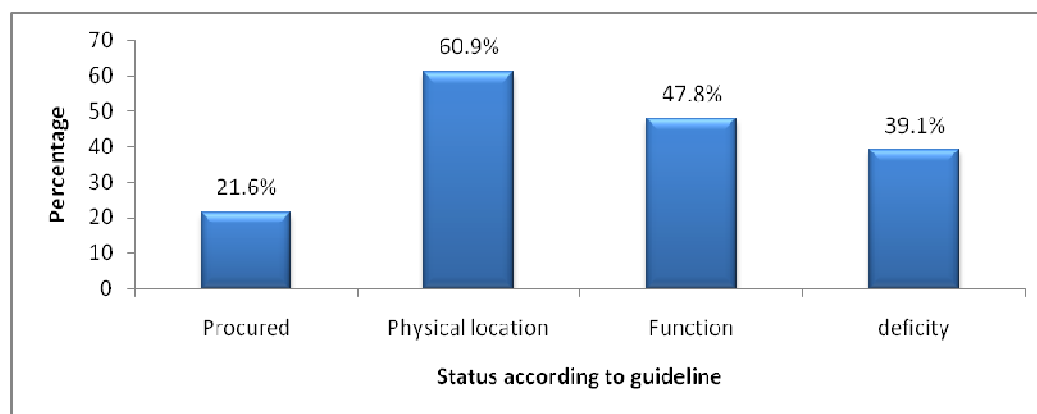
Figure 4.14 Status of medical equipment for EmONC services according to WHO/ministry of health guidelines at Mzenge health center



Source: Field data 2018

Chole health center had a deficit of 56.5% of medical equipment for EmONC services whereby the program did not manage to support the facility with medical equipment required, and the health center had 43.5 on availability of equipment and function-ability and 43.5% of physical location of the equipment at the required location. This is as shown on the following figure 4.15;

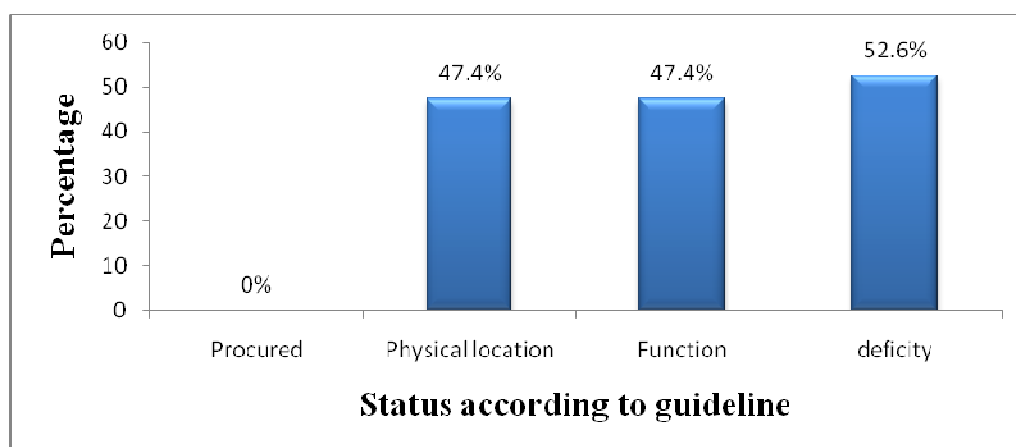
Figure 4.15 Status of medical equipment for EmONC services according to WHO/ministry of health guidelines in Chole health center



Source: Field data 2018

The ten dispensaries in average had a deficit of 52.6% of medical equipment for EmONC services whereby the program did not manage to support the district facilities with required medical equipment. The dispensaries had 47.5% on availability and function-ability of equipment and 47.5% physical location of the equipment at the required location. This is as shown on figure 4.16;

Figure 4.16 Status of medical equipment for EmONC services according to WHO/ministry of health guidelines in 10 dispensaries



Source: Field data 2018

4.3.4 Procured medical supplies for EmONC services

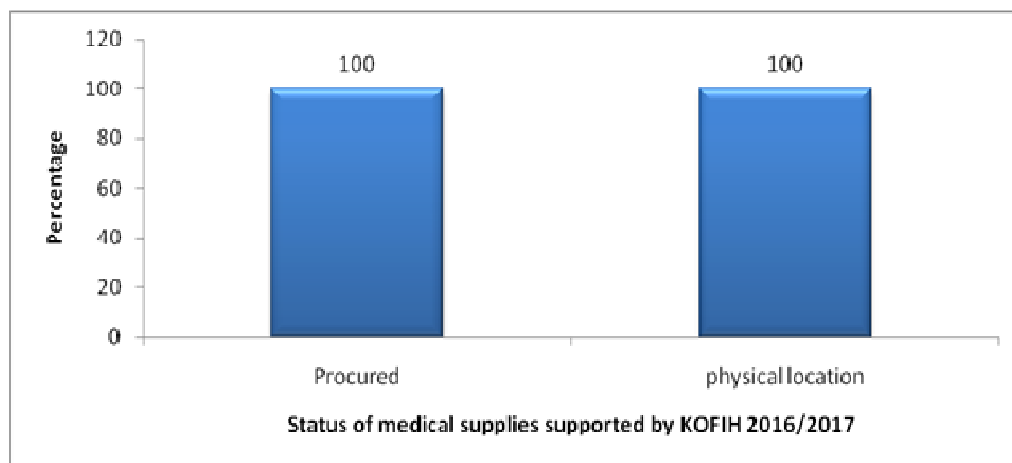
Another intervention for improving EmONC services was to procure medical supplies which would address the problem of lack medical supplies, which the district was facing whereby this problem made the district to have a lower percentage of EmONC services at its facilities. Procurement of medical supplies would enable the district facilities to provide essential EmONC services in which would eventually improve emergency obstetric and newborn care services at selected health facilities in Kisarawe. The procurement of medical supplies for EmONC services should adhere to WHO/Ministry of health guidelines, which stipulate the kind of medical supplies required at each level of facilities. The procurement and utilization of medical supplies for EmONC services were assessed by looking over the situation of availability of the medical supplies according to required location in health facilities starting with district hospital and health

centers individually while the dispensaries been examined in the average manner since they were all similar. The results were as follows;

On observation checklist if the medical supply item was procured, and if it was located in the required physical location or issued in the store ledger to the appropriate location since it is a perishable good it scored 1 and if not it scored 0. The results were as follows;

100% of medical supplies were procured according to the budget set aside by KOFIH whereby out of 100% medical supplies for EmONC services procured. 100% were located at the required physical locations. This is as shown on the following figure 4.17;

Figure 4.17 Status of medical supplies procured for EmONC services according to KOFIH budget 2016/2017.

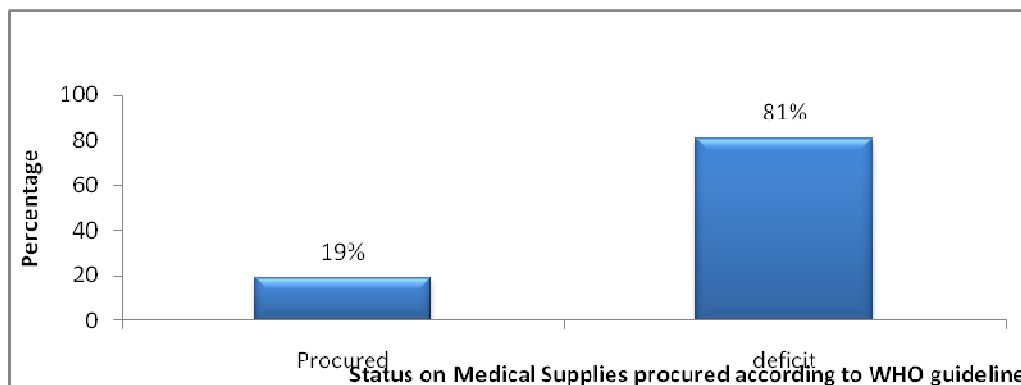


Source: Field data 2018

Furthermore, out of the list of WHO/ministry of the health requirements for medical supplies of EmONC services there was a deficit, and this can be demonstrated as follows;

The list of medical supplies for EmONC services as per WHO/ministry of health guidelines the program could be able to procure 19 % of the required medical supplies and there was a deficit of 81%. This is as shown on the following figure 4.18;

Figure 4.18 Status of procured medical supplies for EmONC service according to WHO/ministry of health guidelines



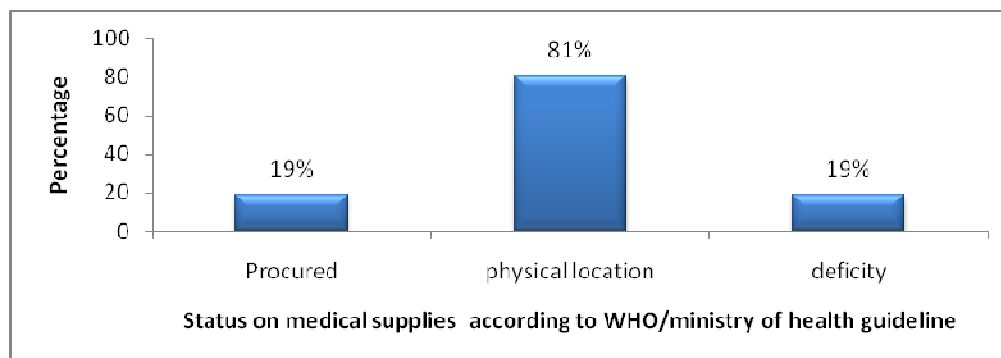
Source: Field data 2018

4.3.4.2 The medical supplies procured, utilized on emergency obstetric and newborn care services at each health facility

The procurement and utilization of medical supplies for EmONC services were assessed by looking the availability situation of medical supplies according to required location in health facilities of the district hospital, health centers and dispensaries. Moreover, since medical supplies are perishable good, the researcher as well considers the store ledger to see if the item was present at the time of services delivery 2015-2017. The results were as follows;

Kisarawe district hospital had a deficit of 19% of medical supplies for EmONC services. The program had managed to support the district hospital to procure 19% of medical supplies required. The facilities had 81% on availability of supplies and were at required physical location. This is as shown on the following figure 4.19;

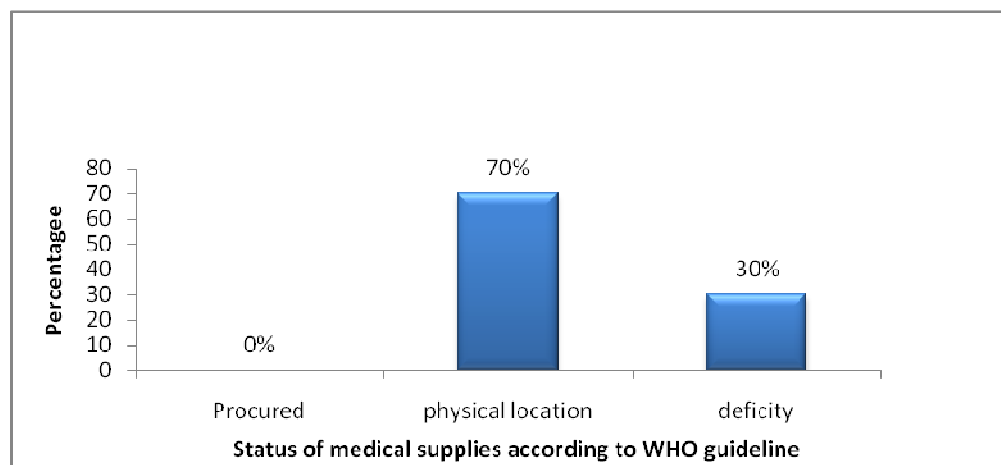
Figure 4.19 Status of procured medical supplies for EmONC service according to WHO/ministry of health guidelines in Kisarawe District Hospital.



Source: Field data 2018

Masaki health center had a deficit of 30% of medical supplies for EmONC services. The program did not manage to support the facility to procure medical supplies required. The health centers had 70% on availability of medical supplies and were at required physical location. This is as shown on figure 4.20 below;

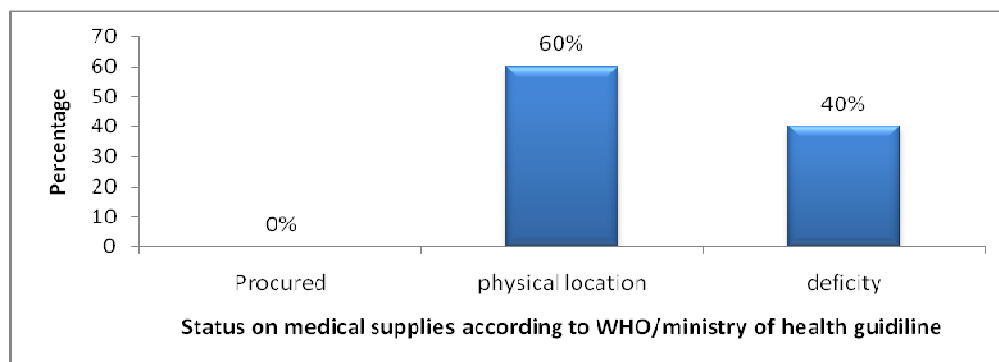
Figure 4.20 Status of medical supplies for EmONC services according to WHO/ministry of health guidelines in Masaki health center



Source: Field data 2018

Maneromango health center had a deficit of 40% of medical supplies for EmONC services. The program did not manage to support the facility to procure medical supplies required. The health centers had 60% on availability of medical supplies and were at required physical location. This is as shown on figure 4.21 below;

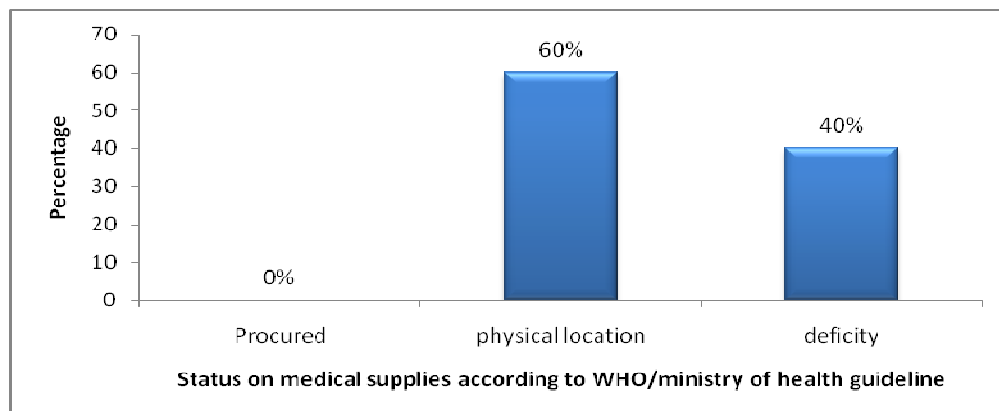
Figure 4.21 Status of medical supplies for EmONC services according to WHO/ministry of health guidelines in Maneromango health center



Source: Field data 2018

Mzenga health center had a deficit of 40% of medical supplies for EmONC services. The program did not manage to support the facility to procure medical supplies required. The health centers had 60% availability of medical supplies and were at required physical location. This is as shown on the following figure 4.22;

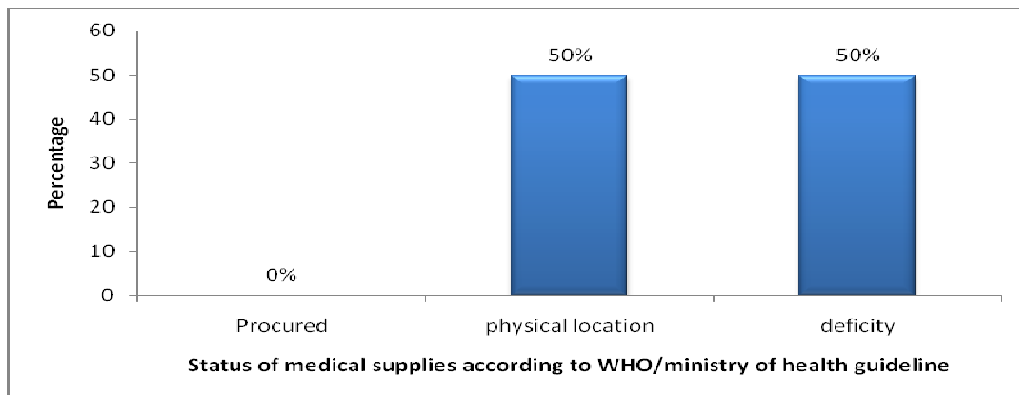
Figure 4.22 Status of medical supplies for EmONC services according to WHO/ministry of health guidelines in Mzenga health center



Source: Field data 2018

Chole health center had a deficit of 50% of medical supplies for EmONC services. The program did not manage to support the facility to procure medical supplies required. The health centers had 50% availability of medical supplies and were at required physical location. This is as shown on figure 4.23 below;

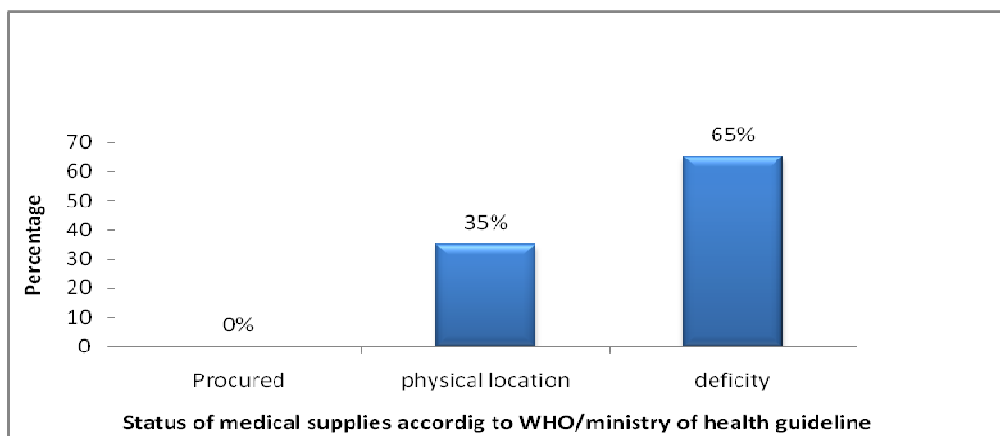
Figure 4.23 Status of medical supplies for EmONC services according to WHO/ministry of health guidelines in Chole health center



Source: Field data 2018

The ten dispensaries in average had a deficit of 65% of medical supplies for EmONC services. The program did not manage to support the district facilities to procure medical supplies required, and the dispensaries had 35% on availability of medical supplies and were at required physical location. This is as shown on figure 4.24 below;

Figure 4.24 Status of medical supplies for EmONC services according to WHO guidelines in 10 dispensaries



Source: Field data 2018

4.3.5 Improved EmONC Services

The improvement of emergency obstetric and newborn care services at selected health facilities in Kisarawe District was tracked from 2015 up to 2017. The essence of this is to see the situation of EmONC services at facilities before the program and after started implementing the program on first of July 2016. The changes would expect to see were contributed by the following intervention funds disbursement, training of health staff on EmONC services at the facilities and procurement of medical equipment and supplies for EmONC services at selected health facilities.

Additionally, the indicators to track EmONC services at selected health facilities were from WHO guidelines whereby these indicators were numbered of women delivered at EmONC facilities on this; I was assessing the usability of health facility by pregnant women, proportional to unmet need for EmONC services in this; I assessed the proportion of pregnant mothers with obstetric complications who received EmONC Services at EmONC facilities, number of pregnant women who received EmONC services of signal function during delivery whereby the researcher assessed the capabilities of the health facilities to provide which type of services to pregnant mothers by comparing from 2015 to 2017, number of pregnant mothers who received Caesarean section services on this; the researcher assessed the capability of health facilities to provide EmONC services, especially CEmONC services.

Finally the researcher to evaluate the extent to which EmONC services at selected health facilities have improved or not, I used document review method of data collection by reviewed all 15 facilities register. The results were as follows;

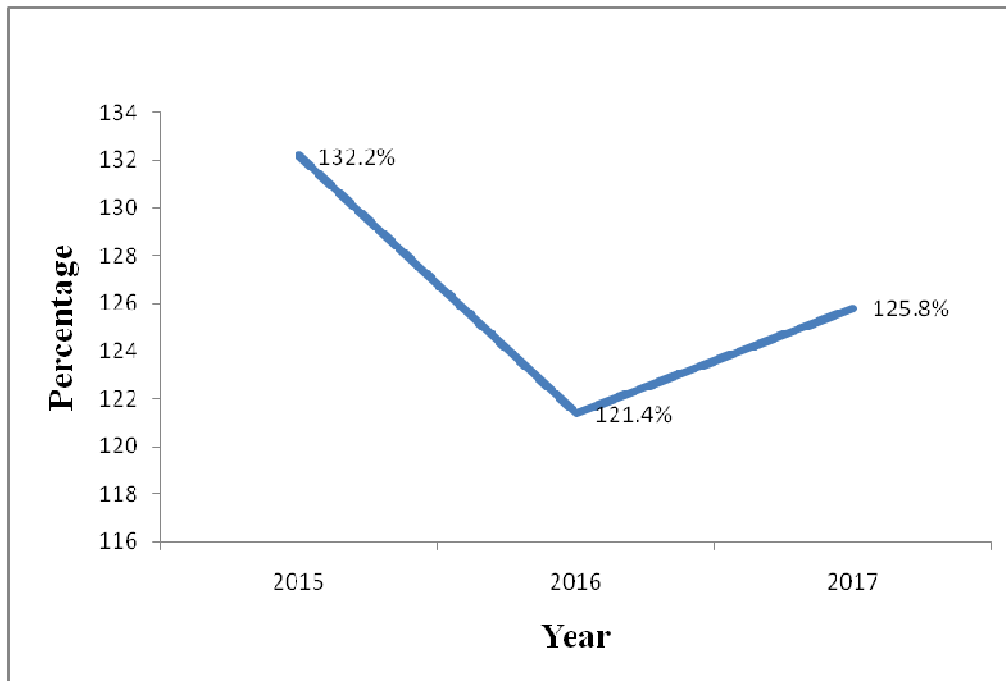
4.3.5.1 The proportional of the pregnant mothers delivered at selected health facilities in Kisarawe District from 2015 to 2017

The pregnant mothers were delivering at EmONC facilities was assessed by looking at the total number of pregnant mothers attended at the facilities against a target on which the facilities were supposed to be attained according to NBS data of 2012. The results were as follows;

The trend of pregnant mothers delivered at 15 EmONC facilities as per target from 2015-2017 in Kisarawe District it shows fluctuating whereby in 2015 it was high about

132.2%, then it decreased to 121.4% in 2016 which is a 10.8% margin. Later in 2017 it slightly increased to 125.8%, which is a 4.4% margin. This is as shown on the following figure 4.25;

Figure 4.25 the trend of pregnant mothers who delivered at 15 EmONC facilities as per target from 2015-2017 in Kisarawe District.



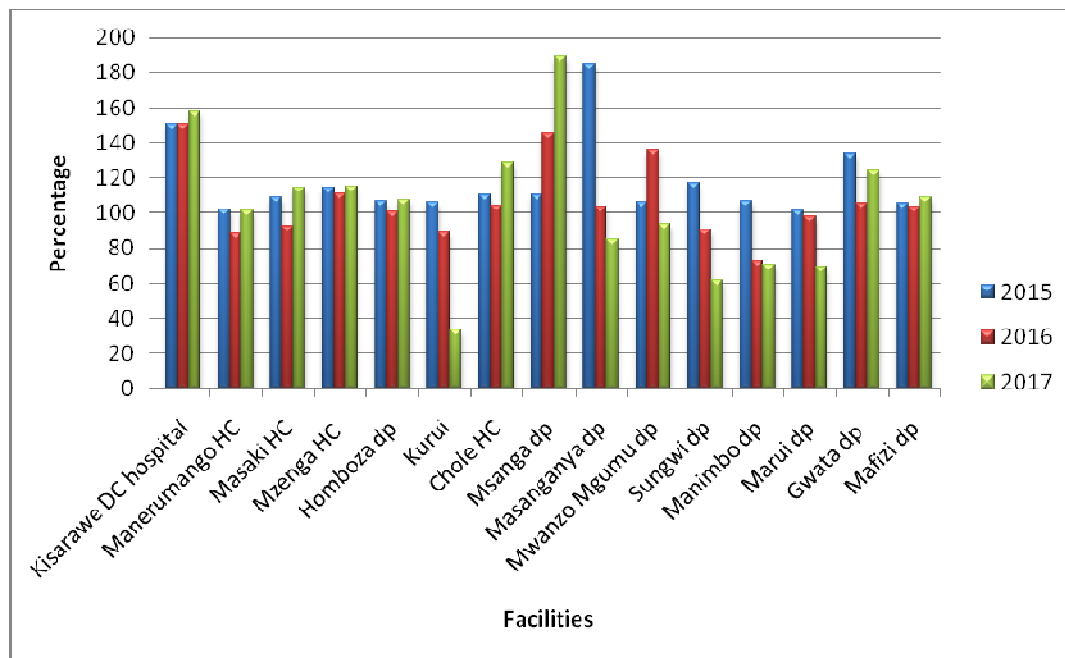
Source: Field data 2018

Additionally, apart from looked at the trend of pregnant mothers who delivered at 15 EmONC facilities, the researcher was interested to know the individual facility performance by comparing one facility to another in the period of 2015 to 2017. The results were as follows;

The facility with the highest target achieved for pregnant mothers to deliver at EmONC facility was Msanga dispensary, which was 189% in 2017 followed by Msanganya dispensary, which was 185 in 2015. The third one is a district hospital which in 2017 had 157%, and in 2015 were 151% and 2016 was 151%. The least performer was Kurui dispensary, with 33% in 2017 followed by Sungwi dispensary, which had 62% and Marui dispensary, which had 69%. All facilities in 2015 managed to achieve more than 100% of the required target while in 2016, nine facilities out of 15 facilities managed to

achieve 100% or more, and the remain six facilities achieved less than 100. Lastly out of 15 facilities Kisarawe district hospital, Masaki health center, Mzenga health center, Homboza dispensary, Msanga dispensary and Mafizi dispensary showed improving trend from 2015-2016 on achieving the target for pregnant mothers to deliver at their facility while other facilities show a fluctuating trend whereby some started in 2015 with high percentages and ended up with a low percentage in 2017 and yet others started with a low percentages in 2015, and later they performed highly in 2016 then ended with low percentages in 2017. This is as shown on figure 4.26 below;

Figure 4.26 Percentages distribution of pregnant mothers who delivered in each of the 15 EmONC facilities as per target from 2015 to 2017 in Kisarawe District



Source: Field data 2018

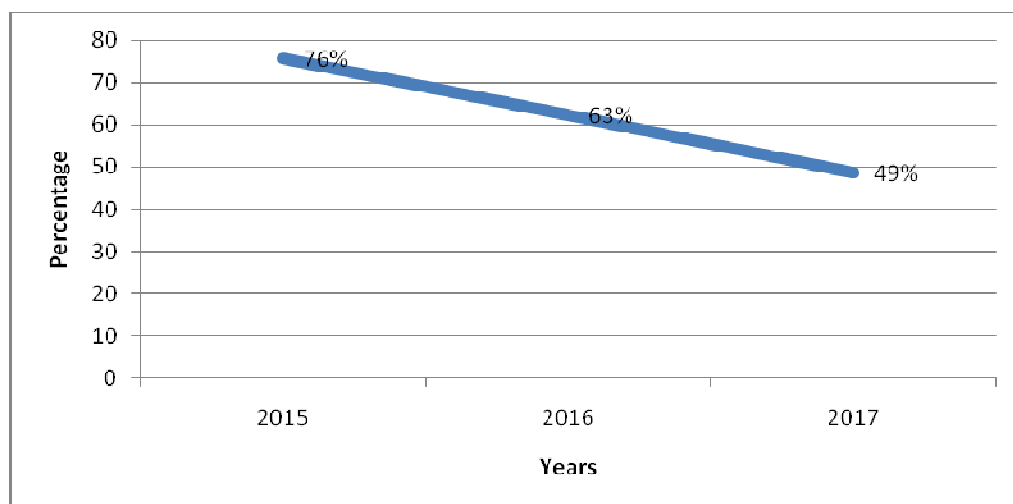
4.3.5.2 The proportion of met need for EmONC services to pregnant mothers who experienced obstetric complication and received EmONC services at selected facilities in Kisarawe District from 2015 to 2017

The met need for EmONC services is the proportion of pregnant mothers with obstetric complications who received EmONC Services at EmONC facilities. According to UN standard the met need for EmONC estimated to 15% of all pregnant mothers who are

expected to have obstetric complications and should be treated at EmONC health facilities by 100%. The study used the formula provided by UN to calculate the indicator. It was calculated by multiplying Kisarawe District population by the birth rate then; multiplying the result by 15 % to get the expected number of complications. The result was then divided by the actual number of women with complications at EmONC health facilities multiplying by 100. This does not include numbers of women who were referred from one health facilities to another. The results were as follows;

The proportion of met need for EmONC services was highest at 76% in 2015 and lowest at 49% in 2017. The trend of proportion for met need of EmONC services had never reached the required need of 100% as per UN requirement. This is as shown on figure 4.27 below;

Figure 4.27 proportion of met need for EmONC services at selected health facilities in Kisarawe District from 2015 to 2017



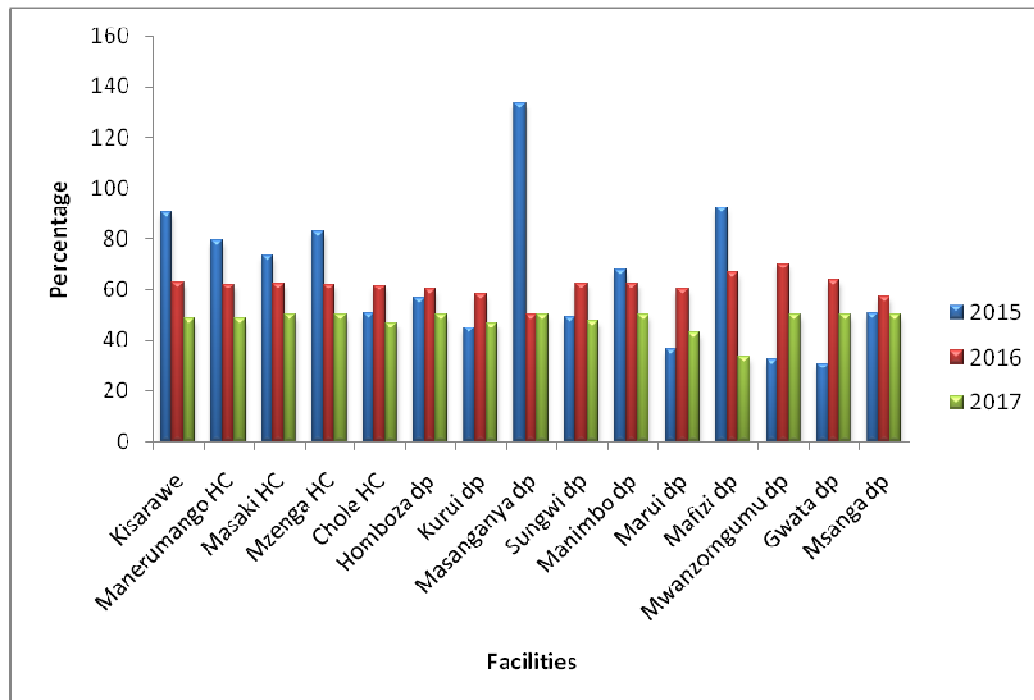
Source: Field data 2018

Furthermore, the individual performances of each facility on proportion of met need for EmONC services were as follows;

Only Masanganya dispensary had a proportion of met need of more than 100%, which was 133% in 2015 which later in 2016 and 2017 sharply declined to 50% with no clear reason. Most facilities show a decrease in performance of EmONC services from 2015 to 2017 except for Mwanzomgumu, Marui and Karui dispensaries, which show a fluctuation in which they started low in 2015, increased in 2016 then decrease in 2017,

but all did not reach the required target of 100% in 2017. This is as shown on figure 4.28 below;

Figure 4.28 Proportion of met need for EmONC services at the 15 health facilities in Kisarawe District from 2015 to 2017



Source: Field data 2018

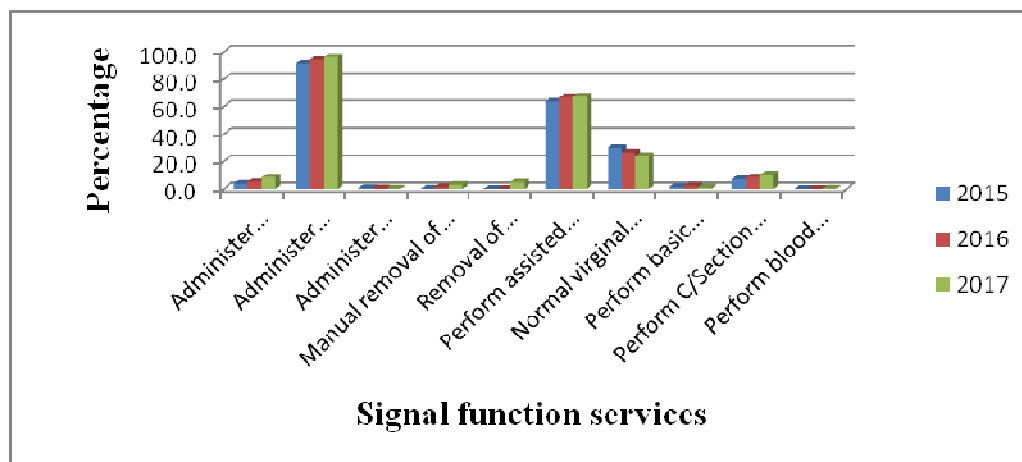
4.3.5.3 The Proportion of pregnant mothers who received signal function of EmONC services during delivery at selected health facilities in Kisarawe District from 2015 to 2017

Pregnant mothers who delivered at selected health facilities with EmONC services should receive appropriate signal function services according to level of facility and capability of facility. The signal functions; administer parental antibiotics, administer a uterotonic drug(eg Oxytocin), administer parental anticonvulsant (magnesium sulphate), manual removal of placenta, removal of retained product, perform assisted vaginal delivery, perform basic neonatal resuscitation, perform C/Section delivery and perform normal vaginal delivery. The researcher gathered data by document review that is

facility registers on EmONC services delivered during the period of 2015-2016. The results were as follows;

The pregnant mothers received signal function service of administration of uterotonic drug at highest percentages (91% in 2015, 91.4% in 2016 and 96% in 2017) followed by assisted vaginal delivery (63.7% in 2015, 66.9% in 2016 and 67.3% in 2017) and third was normal vaginal delivery (29.9% in 2015, 26.45% in 2016 and 24.1% in 2017) while the lowest percentages of signal function service pregnant mothers received was blood transfusion (0% in 2015, 0% in 2016 and 0.4% in 2017), followed by manual removal placenta (0% in 2015, 0% in 2016 and 5% in 2017) and third administer parental anticonvulsant (0.8% in 2015, 0.5% in 2016 and 0.3 in 2017). This is as shown on figure 4.29 below;

Figure 4.29 Status of pregnant mothers who received signal functions services during the period of 2015 to 2017



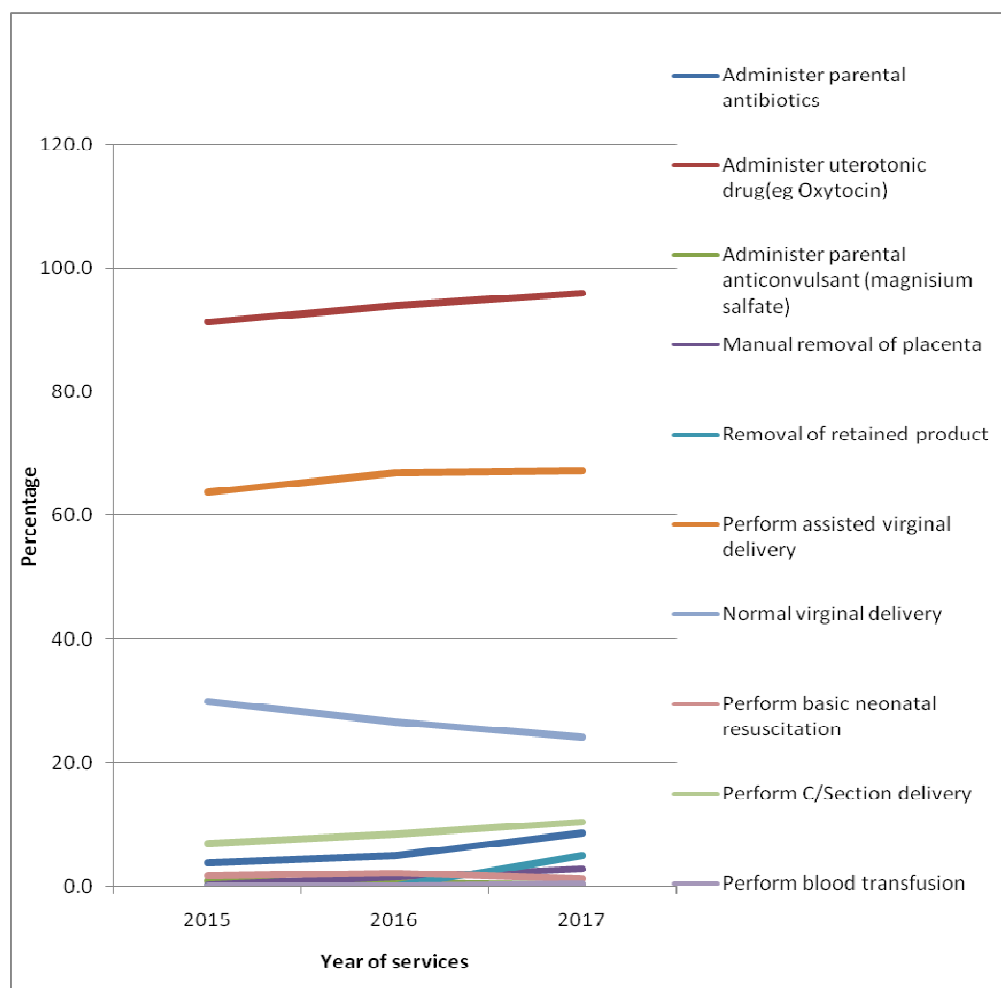
Source: Field data 2018

The researcher was also interested to know the trend of signal functions in 15 EmONC health facilities. The essence of this was to see if the signal function services are improving or not. The results were as follows;

The trend of the pregnant mothers who received signal functions service at 15 health facilities from 2015 to 2016 was increasing, and the leading service showed a higher increase in percentages was the removal of retained products from 0% in 2015 to 5%, which is 5% margin in 2017 followed by administering of antibiotic, which increased

from 3.8% in 2015 to 8.6% in 2107, which is a 4.8% margin. The administration of uterotonic drug increased from 91.4% in 2015 to 96% in 2017 there after by assisted vaginal delivery and C/section both having an increase of 3.5% margin from 2015-2017 while the services which have shown a decrease in percentages were normal vaginal delivery, which decreased from 29.9% in 2015 to 24.1% in 2017, which was a 5.8% margin followed by administering of anticonvulsant and basic neonatal resuscitation which both had a decrease margin of 0.5% from 2015 to 2017. This is as shown on figure 4.30 below;

Figure 4.30 the trend of pregnant mothers who received signal function services at 15 health facilities in Kisarawe district from 2015 to 2017.

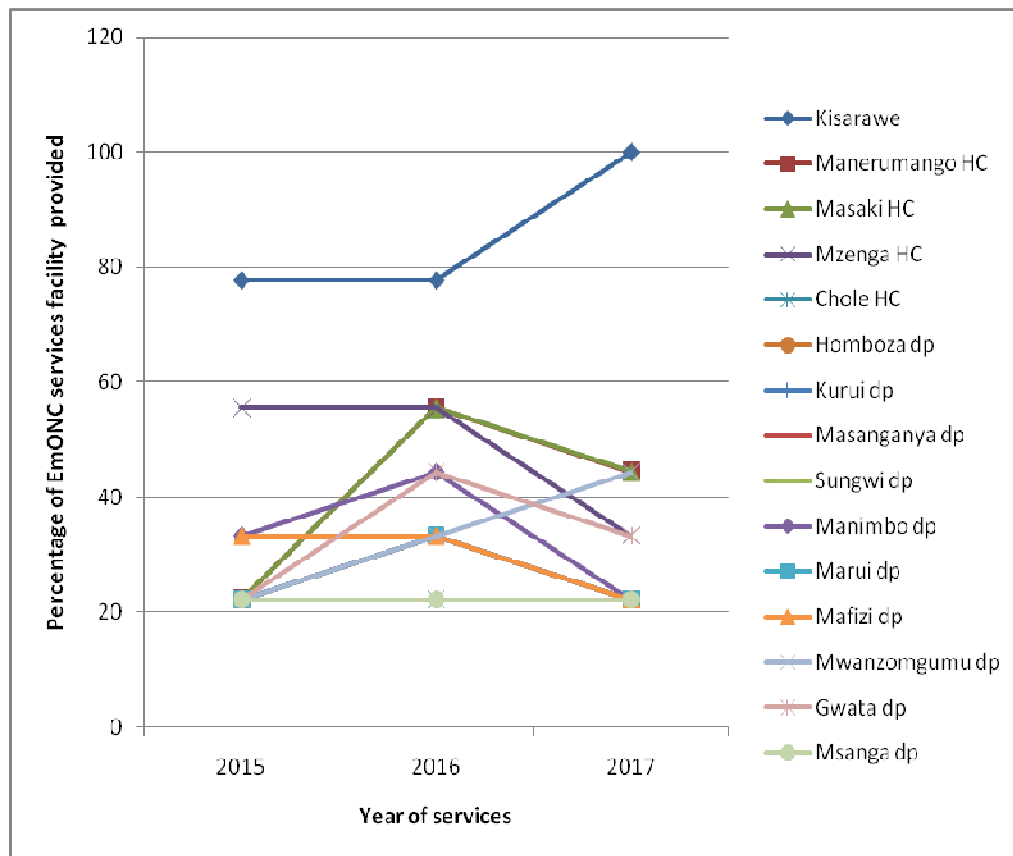


Source: Field data 2018

Additionally, the researcher was interested to know the performance of each of the 15 health facilities on providing EmONC services signal functions. The essence of this was to see if the signal function services are improving or not at selected facilities. The results were as follows;

The facility with the highest performance on providing EmONC signal function in percentages during the period of 2015 to 2017 was a Kisarawe district hospital which had 77.7 % in 2015 and 2016 and ending up with 100% in 2017 in which the facility managed to provide all signal functions followed by Mwanzomgumu dispensary, which started with 22.2% in 2015 and ending up with 44.4% in 2017. The rest of facilities showed a fluctuating manner whereby they had 22.2% in 2015 later in 2016; they reached 55.5 % then they dropped either to 22.2% or 33.3% or 44.4% percent. Just one facility had shown no change at all, and this facility was Msanga dispensaries, which had performance of 22.2% in 2015, 2016 and 2017. Interesting to note that in 2015 just Mzenga health center had managed to provide signal function more than 50%, and performed at 55.5% while in 2016 only Mzenga, Maneromango and Masaki health centers had managed to provide signal function of EmONC services more than 50%, and it was 55.5%. Furthermore, in 2017 only the district hospital managed to provide EmONC services more than 50%. This is as shown on the following figure 4.3

Figure 4.31 performance of each of the 15 facilities on providing EmONC signal functions in percentage distribution during the period of 2015-2017 in Kisarawe District.



Source: Field data 2018

4.3.5.4 The pregnant mothers who delivered at selected health facilities and received caesarean section services in Kisarawe district from 2015 to 2017

The researcher was interested to know the rate of C/section services that pregnant mothers received at CEmONC facilities. The essence of this was to observe whether the CEmONC facilities can provide services to the required rate of not more than 15% of the total number of pregnant mothers at the facilities according to WHO. The results were as follows;

Only Kisarawe district hospital facility was providing C/section services to pregnant mothers out of the 15 selected facilities. The 20 facilities were not selected. Therefore,

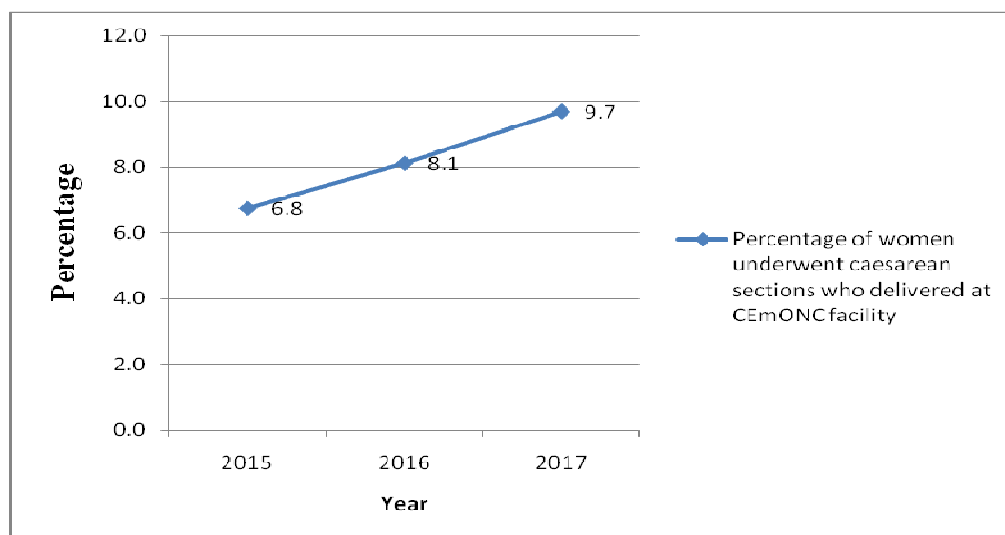
the information provided below in figure was from the Kisarawe district hospital only.

The results were as follows;

The trend of caesarean section services was increased from 6.8% in 2015 to 8.1% in 2016 and then to 9.7% in 2017. In additional, from 2015 to 2107 the trend increased by 2.9% margin while the highest percentages of 9.7% did not exceed the required percentages of WHO of 15% caesarean sections of total deliveries at the specified time.

This is as shown on figure 4.32 below;

Figure 4.32 Proportion of pregnant mothers who underwent caesarean sections during delivery in Kisarawe district hospital from 2015 to 2017.



Source: Field data 2018

4.4 Evaluation dissemination plan

The dissemination started before data collection. I presented my concept note to the panel of teacher and student and received input on my study. Thereafter, I collected data and wrote an evaluation report which I will present it to the panel of teacher, and if I would manage to defend it, I will publish it for future use

CHAPTER FIVE

DISCUSSION OF EVALUATION FINDINGS

5.1 Introduction

This chapter concentrates on discussion of evaluation findings in order to respond to the objectives of this study. The findings were presented and analyzed by using descriptive statistics such as bar charts, line charts, histograms and percentages to provide meaning to the evaluation findings.

The main evaluation objective was to evaluate the implementation process of health system strengthening program towards improving emergency obstetric and newborn care services a case of selected health facilities in Kisarawe District. The specific objectives were; to find out the extent to which funds disbursed were utilized to improve emergency obstetric and newborn care services, to find out the percentage of staff trained on emergency obstetric and newborn care services, to investigate the medical equipment and supplies procured and utilized for EmONC services, to investigate the medical supplies procured and utilized for EmONC services and to find out the percentage increase of the emergency obstetric and newborn care services at selected health facilities in Kisarawe District.

5.2 Funds disbursed for EmONC services

A qualitative study conducted by Mkoka et al 2014 on governing the implementation of EmONC services in Kongwa district reveals that one of the major challenges in a low-income country like Tanzania on implementing the improvement of EmONC service is availability of the fund adequate. The funds should be available, disabused and utilized according to the intended aim of improving EmONC services also government should work together with development partners in order to address the gap that exists (Mkoka et al., 2014).

From the evaluation findings funds for improving EmONC services to health facilities in Kisarawe district were available and were disbursed in 3rd and 4th quarters of financial year of 2016/2017. There was a delay in funds disbursement from RAS (regional

administrative secretary office), even though KOFIH had disbursed the funds during the 1st quarter of financial year of 2016/2017 and there was no clear reason for late disbursement from the RAS. In spite of the delay of funds, the district managed to implement 95% of the activities except one activity of ambulance procurement for the district hospital due to the tendering procedure since the funds were disbursed late. The implication of this is that the district could not improve EmONC services as planned.

On the issue of facilities which were benefiting from the program, the findings revealed that four facilities out of 35 facilities were benefiting. These were Kisarawe District Hospital and the health centres of Maneromango, Masaki and Mzenga. The low coverage of the program was due to inadequate funds, which resulted into the slow pace of the improvement of EmONC services at selected health facilities in Kisarawe District.

Further on issue of funds utilization to improve EmONC services in health facilities, the results reveal that the funds were used for training of health staff, procurement of the medical equipment and supplies for EmONC services in health facilities. The respondents provided attendance registers for training, procurement documents, payment and voucher for medical equipment, and supplies procured to the researcher. The funds were utilized to improve EmONC services as the program intended.

The funds disbursed were utilized to improve emergency obstetric and new-born care services at selected health facilities: Data gathered revealed that funds were available even though they were disbursed late and were not adequate to cover all health facilities in Kisarawe District. There is a need of more funds to cover more facilities, especially those at the lower level. In a similar study on improving EmONC services done in the province of Sofala in Mozambique Santos et al (2006) observes that facilities that received adequate funds for improving EmONC services their management of complications during pregnancy tripled in comparison to the previous year when they received inadequate funds (Santos et al, 2006). Florina Serbanescu (2013) who did a similar study of improving EmONC services in Kigoma region observes that facilities which received adequate financial support performed better than those which did not receive financial support (Florina Serbanescu, 2013).

5.3 Trained staff for EmONC services

A study conducted by Charles A. Ameh 2015 from the University of Liverpool reveals that deficiencies on EmONC services are highly contributed to by lack of knowledge and skills of health care providers. Therefore in order to ensure improvement of EmONC services there is a need of training of health care providers. The best way to deliver in-services training of EmONC training should be through evidence based learning method (Charles A.Ameh, 2015).

From the evaluation findings on whether staff received training on EmONC services for improvement EmONC services, data reveals that they received training. From face to face questionnaire the responders responded that 15% of health workers who worked at maternal and newborn units had received EmONC training. From the self-administered questionnaires out of 100 respondents, 19 respondents who are equivalent to 19% responded that they received the EmONC training and 81 which are equivalent to 81% said no. There was little difference between face to face questionnaire and questionnaire response to the number of trained staff. The slight difference may be due to a number of reasons, for instance, could be some of the trainees were not around during data collection, or some had been transferred to other districts or regions, and some were shifted to other departments.

Apart from that out of 19% of respondents who received, training 10.5 % (2respondents) were from health centers, and 89.5% of (17respondents) were from the district the hospital. Therefore, this implies that the number of health workers who received training were very few, which would affect the pace of improvement of EmONC services. Majority of the facilities have poor quality of providing EmONC services since there were no skilled staff.

On adherence to WHO/Ministry of health guidelines and selection of the participant from department relating to maternal and newborn care during training revealed that the selection of the participant was from department relating to maternal and newborn services whereby 42% from Reproductive child health clinic department, 37% from the maternity ward, 11% from paediatric ward and 11% from theatre while on the type of

EmONC services, training provided the findings were as follows; Face to face questionnaire revealed that guidelines from WHO/ministry of health were followed, and the type of EmONC training conducted was CEmONC for 14 days. In questionnaires 19% of respondents received CEmONC training and the training took 14 days, which was equivalent to respondents who said yes they received training on EmONC services. On the question on which topics were presented, 15% of respondents picked 10 topics, 4% picked > 5 but < 10 topics and 81% didn't pick any topic. Apart from 19% who had said yes, they had a practical session during training out of that 19%; 31.6% of respondents managed to pick all 13 practicals, 52.6% managed to pick 12 practicals excluding number of 10 and 15.8% managed to pick less than 12 practicals excluding number of 10. Most respondents could not pick number ten because it is for health staff located at theaters. The guidelines were adhered to, even though only one type of EmONC service training conducted, which was CEmONC.

From the data gathered the following three facts are evident: first; 81% of respondents did not receive EmONC services training, secondly; 100% of health staff at primary level facilities like dispensaries did not receive BEmONC service training and thirdly; 70% of health staff providing CEmONC services did not receive any training during the on-going program. From the above three facts, one may conclude that the quality of EmONC services at Kisarawe District was poorly provided. Mkoka et al (2014) concludes in his study conducted in Kongwa district of improving EmONC services that lack of trained staff to provide signal function service was the reason behind poor performance on EmONC services (Mkoka et al., 2014). Miltenburg et al (2017) study conducted in Magu district concurs with Mkoka (2014) that lack of trained staff caused facilities to perform badly in the provision of EmONC services (Miltenburg et al, 2017).

5.4 Procured medical equipments for EmONC services

An assessment survey study conducted by Miltenburg et al in 2017 on EmONC services performance to 18 facilities in the rural district of Magu, Tanzania reveals that facilities could not perform at the expected level on providing EmONC services due to lack of required medical equipment as per WHO/Ministry of health guidelines. For this reason,

there is a need for procurement of essential medical equipment for improving EmONC services in health facilities as Miltenburg, observe (Miltenburg et al, 2017).

Findings on the extent to which medical equipment procured for EmONC services at selected health facilities revealed that every medical equipment budgeted by KOFIH was procured by 100% in supported health facilities. The medical equipment procured had a deficit of 22% according to WHO/ministry of health guidelines. Some facilities have shown to have medical equipment even though they had no support from KOFIH. This may be due to other programs like HBF (health basket fund). The issue of utilization of medical equipment procured for EmONC services was 100% performance whereby every medical equipment was located at required locations, and was functioning by 100%.

Facility with the highest deficit of medical equipment for EmONC services was Chole health center with 56.5% followed by 10 dispensaries with 52.6% then the three health centers of Maneromango, Masaki and Mzenga both had 39.1% while the one with the least deficit was a Kisarawe district hospital with 4% deficit of medical equipment for EmONC services.

This implies that since medical equipment is one of the criteria for the provision of EmONC services then the facility with the ability to provide EmONC services almost by 100% was a Kisarawe district hospital. The rests of the facilities are struggling especially the Dispensaries, which could provide only 43.5% of EmONC services followed by health centers could provide 60.1% followed by Chole, which could provide 47.4%.

Finally, almost all facilities have a shortage of 39.1%-56.5% of medical equipment for EmONC services except the district hospital and which is an implication that the district had poor quality on performance of EmONC service, especially at lower level facilities. These results are similar to that of the study conducted in Hai district whereby lower facilities, especially dispensaries and health centers had a shortage of medical equipment, which was the reason behind for the district not to attain the required UN standard of 70% coverage of BEmONC services (Bakari et al, 2015).

5.5 Procured medical supplies for EmONC services

An assessment survey study conducted by Miltenburg et al in 2017 on EmONC services performance to 18 facilities in the rural district of Magu, Tanzania reveals that facilities could not execute at the expected level in providing EmONC services due to shortage of required medical supplies as per WHO/Ministry of health guidelines. For this reason, there is a need for procurement of essential medical supplies for improving EmONC services in health facilities as Miltenburg, observe (Miltenburg et al, 2017).

The findings on the extent to which medical supplies procured for EmONC services at selected health facilities revealed that all medical supplies budgeted by KOFIH were procured by 100%, but the procurement of medical supplies was for Kisarawe District hospital only and was by 19% procurement supplies according to WHO/ministry of health.

Most facilities have shown to have medical supplies even though they had no support from KOFIH may be this was due to other programs like HBF (health basket fund). The issue of utilization of medical supplies procured for EmONC services was performed at 100% whereby all medical supplies were located at required locations 100%.

The situational of medical supplies according to WHO/ministry of health guidelines was 81% with a 19% deficit for District hospital, 70% (with 30%) deficit in Masaki health center, 60% with 40% deficit in Maneromango and Mzenga health centers, 50% with 50% deficit in Chole health center and 35% with a 65% deficit in dispensaries. This implies that since medical supply is one of the criteria for the provision of EmONC services then the facility with the ability to provide EmONC services highest is a Kisarawe district hospital by 81%. The rests of facilities are struggling especially the Dispensaries, which could provide only 35% of EmONC services followed by health centers, which could provide 60%-70% followed by Chole could provide 50% of EmONC services.

Finally, almost all facilities have a shortage of 40%-65% of medical supplies for EmONC services except the district hospital and Masaki health center which is an implication that the district had poor quality on EmONC service, especially at lower level facilities. These results are similar to that of the study conducted in Hai district

whereby lower facilities, especially dispensaries and health centers had a shortage of medical supplies, which was the reason behind for the district not to attain the required UN standard of 70% coverage of BEmONC services (Bakari et al, 2015).

5.6 EmONC services at selected facilities

An evaluation study was conducted by Florina Serbanescu from CDC of practicals and outcomes from the health system strengthening towards improving EmONC services program in 2013 in Kigoma Region reveals that facilities which received support from a donor demonstrated improvement on EmONC services performance whereby the proportion of met need for EmONC was high, availability of signal function services were high and the rate of pregnant mothers receiving C/section was increasing (Florina Serbanescu, 2013).

The findings reveal that the rate of pregnant mothers who delivered at EmONC facilities was more than 100%, but it shows fluctuation whereby in 2015 it was 132.2 later on dropped to 12.4% in 2016, which is a 10.8 % margin afterwards it increased again to 125.8% in 2017. The achievement of more than 100% might be due to under estimation by NBS or migration of people from the neighboring region of Dar es Salam since the region is dense populated, and many migrate into the region for employment. In spite of a performance higher than 100%, there is a need to scale up the effort to maintain 132.2% performance since there is a discrepancy on estimation of the population size.

Apart from general observation, the researcher looked at individual facility performance, which revealed that only the district hospital managed to maintain a higher percentage of pregnant mothers delivered to the facility by 157%, 151%, 151% in 2015, 2016 and 2017 respectively while the rest shows high decrease range from 2015 to 2016 and some few shows a fluctuating manner. This may imply that only the district hospital had stable services while the rest of facilities ability in providing EmONC services was questionable. This implies that more effort was needed to improve the situation.

The researcher was also interested to know the proportion of met need for EmONC services in all 15 health facilities. The findings revealed that the proportion of met need for EmONC services was highest at 76% in 2015 and lowest at 49% in 2017, and

individual performance of facilities revealed that only Masanganya dispensary had a proportion of more than 100%, and it was 133% in 2015 which later in 2016, and 2017 was sharply declined to 50% with no clear reason. Most facilities show a decrease in performance of EmONC services from 2015 to 2017 except for Mwanzomgumu, Marui and Karui dispensaries, which show a fluctuation in which they started low in 2015 increased in 2016 then decreased in 2017, but all did not reach the required target of 100% in 2017.

All facilities have low proportion of met need for EmONC service since they could not reach the required target of 100%, and this implies that most of the pregnant mothers who experienced obstetric complications were not treated at EmONC facilities and this endangered their lives. The highest performance was 76% in 2015 that is 24% of pregnant mothers experienced obstetric complications were not attended at EmONC facilities before the program, and lowest performance was 49% in 2017 that is 51% of pregnant mothers who experienced obstetric complications were not attended at EmONC facilities after the program started hence more effort is required to improve EmONC services at facilities.

Further the researcher was interested to know the signal function EmONC services that pregnant mothers received at selected health facilities from 2015 to 2017. The finding reveals that in 2015 and 2016, there was no facility that could provide EmONC service at 100% whereby the district hospital managed to provided services at range of 77.7% in 2015 and 2016 while in 2015 Mzenga health center could provide services at range of 55.6%, also in 2016 just Mzenga, Maneromango and Masaki health centers could provide services at range of 55.6%, and the rests of facilities could provide services at ranging of 22.2-44.4 percentages. In additional to that in 2017 only the district hospital could provide services at 100% and the rests of facilities had decreased on percentages of services provided to less than 50% of EmONC services to the range of 22.2-44.4 percentages. This implies that the district managed to reach the target of 100% for CEmONC services within the district hospital but is far behind on reaching the target for health center, which had a target of 50% of CEmONC services and 70% of BEmONC

services and dispensaries, which had a target of 70% of BEmONC services at the end of the program period.

Furthermore, the researcher was interested to see a higher level of services for EmONC services that is CEmONC services. How is it performing by looked at caesarean section services. The finding revealed that only Kisarawe district hospital had caesarean section services within the district, and the trend of caesarean section services was increased from 6.8% in 2015 to 8.1% in 2016 and then to 9.7% in 2017. Also from 2015 to 2107 the trend increased by 2.9% margin while the highest percentages of 9.7 do not exceed the required percentages of WHO of 15% caesarean section services. This implies that more effort should be put on health centers to start caesarean section services soon so to increase coverage of CEmONC services, which eventually will increase EmONC services.

Finally, having a proportion of met need for EmONC services of 49% for 15 health facilities, which means 51% of the pregnant mothers who experienced complications did not receive EmONC services at EmONC facilities while the UN requirement standard is 100% of all pregnant mothers who experienced obstetrics complications should be treated at EmONC facilities also performance of EmONC services at all facilities was at range of 22.2%-44.4% except to the district hospital which had 100% and this implies that all facilities, especially health centers and dispensaries had a deficit of 55.6%-77.8% on the provision of EmONC services and this means that the program was far behind in reaching the required target. These results are similar to that of the study conducted in Kigoma region whereby facilities did not receive support had low proportion of met need for EmONC services. Availabilities of signal function services were low and the rate of pregnant mothers receiving C/section was increasing at a low pace hence more facilities should be enrolled to the program increase EmONC services (Florina Serbanescu, 2013). Additionally, another study conducted in Lusaka district, Zambia reveals same results that the district had low availability of BEmONC and CEmONC services, which was due to lack of trained staff, medical equipments and supplies according to the required standards (Tembo et al, 2017).

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

Since lack of funds for training of health staff, procurement of medical equipment and supplies on EmONC services is the main reason for poor quality of EmONC services at selected health facilities in third-world countries, there is a need of serious effort to address that (Santos et al, 2006). Tanzania being one of the third-world countries in collaboration with development partners such as KOFIH took a serious measure to address the problem of poor quality of EmONC services (KOFIH, 2016). The program intended to addresses all key issues that affect the quality of EmONC services by providing funds for training of health staff on EmONC services, procurement of medical equipment and supplies at public health facilities (KOFIH, 2016).

6.2 Summary

The finding on fund disbursement reveals that only four facilities out of 35 were receiving support even though late at 3rd and 4th quarter of financial year 2016/2017.

Staff trained for EmONC services were merely 19%-20% of the respondent, and training was CEmONC services while 100% of health staff at primary level facilities like dispensaries did not receive BEmONC service training and 70% of health staff providing CEmONC services did not receive any training during the on-going program.

The medical equipment for EmONC services was procured only in 4 facilities, and the district has a deficit whereby dispensaries had a shortage of 52.6%, Chole health center had 56% and remained health centers had the shortage of 39.1% while the district hospital had 4% shortage.

The medical supplies for EmONC services was only for district hospital. The district was facing with a shortage of medical supplies for EmONC services whereby dispensaries had a shortage of 65%, Chole health center had 50%, and remained health centers had a shortage of 40% while the district hospital had a shortage of 100%.

EmONC services revealed that availability for EmONC services at all facilities was at range of 22.2%-44.4% except to the district hospital which had 100% and this implies that all facilities, especially health centers and dispensaries had a deficit of 55.6%-77.8% on provide EmONC services.

6.3 Conclusions

From the general objective of the study, finding revealed that the strengthening of the health system was more for the district hospital since the district hospital had an increase of 22.3 to reach the required standard of 100% on providing CEmONC services while the health centers of Maneromango, Mzega and Masaki had an increase of 22.2 to reach 44.4%, which implies that they have a shortage of 6% to reach the required standard on providing CEmON services. The rest of the facilities performed worse between 22%-44% on providing BEmONC services, which implied that they have a shortage of 26%-48 of the required 70% on providing BEmONC services. The strengthening of the health system was only for 4 facilities out of 31 facilities, and the program is almost halfway. Furthermore, some of the facilities receive partial support not full that is all health centers. I can conclude that the implementation process of health system strengthening towards improving EmONC services at selected health facilities is not implemented successfully.

6.4 Recommendations

Generally from the study objectives, one can conclude that the implementation process of health system strengthening towards improving EmONC services at health facilities was not implemented successfully due to inadequate funds, trained staff, medical equipment and medical supplies. Based on the study findings, I recommend the following measures to be taken for improving the implementation process of health system strengthening towards improving EmONC services at health facilities.

6.4.1 KOFIH should provide more funds. The funds should be used to enrol especially low level facilities such as dispensaries and health centers to increase availability of EmONC services. The enrolment should involve training of health staff, procurement of medical equipment and supplies for EmONC services.

6.4.2 The district should see to it that the program is implemented more effectively to realise set objectives. This could be achieved through the district contribute additional fund on the program so as to increase stewardship and insure sustainability of the program.

6.4.3 The Government of Tanzania should increase its stewardship. Government of Tanzania through MoHCDGEC should use this study information and renegotiate with KOFIH and other development partners on the support throughout the program to other Regions. The aim is to fill the gap existing in the program.

6.5 Possible limitations of the evaluation

The limitation in this study was lack of financial resource and limited time to conduct the study. However, the researcher worked hard to secure some little find and managed to collect reliable data for the study.

6.6 Areas for further study

This evaluation study was not exhaustive some other area such as evaluation on the implementation process of health system strengthening towards improving of signal functions for EmONC services at the dispensary level, and evaluation on the quality of signal functions for EmONC services to the dispensary can get more attention covering a larger area for the development of people in the country.

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Appendices

Appendix 1

Work plan

ITEM	Timeframe									Responsible person
	2016	2017				2018				
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Proposal Development and Approval										Student
Organize Information of the Target Program										Student and stakeholders
Design the Methodology, Evaluation Questions, list of data needed and data collection method										Student and supervisor
Collect data										Student
Analyse and interpret data										Student and supervisor
Preliminary Report Evaluation Results to stakeholder										Student and stakeholders
Defending thesis										Student and Mzumbe University
Dissemination of the result										Student and stakeholders

Appendix II

FACE TO FACE QUESTIONNAIRE GUIDE FOR DMO/DRCHCO/KOFFI program coordinator on research question 1&2

Thank you for taking the time to talk with me today. I am conducting an evaluation research on the implementation process of health system strengthening program towards improving emergency obstetric and newborn care services at selected health facilities in Kisarawe District which is supported by KOFFI .The aim of the evaluation is to uncover information which will help stakeholders to understand whether the program is line with what was intended to be achieved and improve it if need be. Furthermore the study is conducted in partial fulfillment of the requirements of graduating the Master's degree of Science in Health Monitoring and Evaluation of Mzumbe University. I am interested in hearing about your experiences as an implementer of the program. There is no right or wrong answers to these questions. Please let me know if there are any questions that you would like to skip because they make you uncomfortable. Do you have any questions before we begin?

NB; Please in your responses could you respond briefly.

Research question number 1

To what extent were the funds disbursed utilized to improve emergency obstetric and newborn care services at selected health facilities in Kisarawe District?

Sub research questions relating to research question number one:

Interviewer: Is there a budget allocated to improve EmONC services at selected health facilities in Kisarawe District through KOFFI support.

Interviewee:.....

Interviewer: If Yes how much (mention in Tsh)

Interviewee:.....

Interviewer: In which quarter of the financial year were the funds received (mention in quarter)

Interviewee:.....

Interviewer: Mention the facilities which benefited from the program

Interviewee:.....

Interviewer: Briefly mention how the funds were used for EmONC services in your answer respond about;

1. Training of health staff on EmONC services

a) Can I see the attendance document of the training

1) In place 2) Not available

2. Procurement of medical equipment for EmONC services

a) Can I see the delivery notes for Procurement of medical equipment for EmONC services

1) In place 2) Not available

3. Procurement of medical supplies for EmONC services

a) Can I see the delivery note for Procurement of medical supplies for EmONC services

1) In place 2) Not available

4. Other services (not EmONC services) please mention them

Interviewee:.....

Interviewer: Do you have carried over fund for EmONC services in 2016/2017 financial year?

Interviewee:.....

Interviewer: Did you manage to implement the EmONC service activities budgeted for financial year 2016/2017 .

1. Training of health staff on EmONC services

2. Procurement of medical equipment for EmONC services

3. Procurement of medical supplies for EmONC services

Interviewee:.....

Interviewer: If you did not implement the activities fully to what percentages did you manage to implement them.

Interviewee:.....

Interviewer: Were the funds adequate to improve EmONC services in the financial year 2016/2017?

Interviewee:.....

Research question number 2

To what extent were the staff trained on emergency obstetric and newborn care services at selected health facilities in Kisarawe District?

Interviewer: Were there any training on EmONC services conducted to your health staff in your facilities during the financial year 2016/2017?

Interviewee:.....

Interviewer: Were the trainees selected from the units relating to maternal and newborn care?

Interviewee:.....

Interviewer: Was the guidelines for EmONC services from the Ministry of Health considered during the training?

Interviewee:.....

Interviewer: Mention the number of days did the training took

a) BEmONC service b)CEmONC service

Interviewee:.....

Interviewer: Was there any follow up to the trainees after the training?

Interviewee:.....

Interviewer: After how many days was this follow up done?

Interviewee:.....

Interviewer: If there was no follow up, what were the reasons?

Interviewee:.....

Interviewer: What is the percentages of trained staff on EmONC services in the facilities at the moment?

Interviewee:.....

Interviewer: Do all health facilities have staff trained on BEmONC services?

Interviewee:.....

Interviewer: What is the percentages of facilities without trained staff on BEmONC Services?

Interviewee:.....

Interviewer: Do all health centers and hospitals have trained staff on CEmONC services?

Interviewee:.....

Interviewer: What is the percentages of health centres and hospitals without trained staff on CEmONC services?

Interviewee:.....

Appendix III

QUESTIONNAIRE

Self administer questionnaire to the trainee to address research question number 2
To what extent were the staff trained on emergency obstetric and newborn care services at selected health facilities in Kisarawe District?

Please Circle the correct response number

Eg. Are you 1.Female 2.Male (2)

I) Gender

1. Male 2.Female

II) Carder

1. Clinician 2.Nurse 3.Medical attendant

III) What is the level of the facility are you in

1. Dispensary 2.Health Center 3.Hospital

IV) Which department or unit are you working?

1. RCH 2.Maternity ward 3.Paediatic ward 4.Theater

V) Have you ever received any training on EmONC services

1. Yes 2.NO

VI)If yes the training you received on EmONC services was

1)BEmONC 2) CEmONC

VII) How many number of days took did the training take

1) less than 14 days 2)14 days 3)More than 14days

VIII) What were the topics for the training? Put 1 if it was presented and put 0 if it was not presented

1. Resuscitation of mother and newborn
2. Early newborn care (prematurity, sepsis, hypoglycemia and hypothermia).....
3. Communication, triage and referral
4. Management of shock and the unconscious patient
5. Management of severe pre-eclampsia and eclampsia
6. Prevention and treatment of obstetric hemorrhage

7. Prevention of obstructed labour.....
8. Diagnosis and treatment of pregnancy related Sepsis
9. Assisted vaginal delivery-vacuum delivery
10. Other common obstetric emergencies (breech delivery, cord prolapse, twin delivery and retained placenta

IX) During training did you have practical lessons?

1. Yes 2.no

X) If yes could you circle the practical you did perform

1. Pantograph form filling
2. per vaginal examination
3. Fetal heart examination using fetoscope
4. Pelvic examination
5. Blood pressure measurement
6. APGAR scoring
7. Help baby to breath
9. Administration of magnesium sulfate
- 10 Administration of lumbar spinal anesthesia
11. Adult resuscitation
12. MVA
13. Vaginal tear repair

Appendix IV

Observation checklist for procured equipment

Research question number 3

To what extent were the medical equipment's procured utilized on emergency obstetric and newborn care services at selected health facilities in Kisarawe District?

This question is answered through the researcher responding to an observation checklist of procured equipment and physical verification.

Medical equipment	Quantity	Procured	Functional	Physical location
Delivery Kits				
BP Machine				
Screen fold with curtains				
Examination bed				
Glucometer				
Ambubag-Paediatric size				
Suction Machine				
Diathermy Machine				
Drip Stand				
Stethoscope				
Cort bed				
Stretcher				
Gynaecology Examination Light				
Urine analyzer				
Pediatric pulse oximeter				
Adult pulse oximeter				
Delivery bed				
Haemoque Machine				
Caesarean set				
Laparatomy set				
Cut down tray set				
Vacuum Pump/extractor for assisted vaginal delivery				
Color coded Bins (Yellow,Black,Red)				
Oxygen Source				

Appendix V

Observation checklist for supplies

Research question number 4

To what extent were the medical supplies procured utilized on emergency obstetric and newborn care services at selected health facilities in Kisarawe District?

This question is answered through the researcher responding to an observation checklist of supplies.

Medical supplies	Procured/as budgeted	Physical location
Gloves Sterile		
Gloves disinfected - Long sterile for manual removal of placenta		
Antiseptic solution (iodophors or chlorhexidine)		
Spirit (70% alcohol)		
Long plastic apron		
Waterproof foot ware		
Plastic eye shield		
Urinary catheters		
Syringes and needles		
IV tubing		
IV solutions (Ringers lactate, normal saline)		
Suture material for repair of tears or episiotomy		
Swabs		
Bleach (chlorine-based compound)		
Clean plastic sheet to place under mother		
Sanitary pads		
Clean towels/cloths for drying and wrapping the baby		
Cord ties/clamp		
Impregnated bednets		
Urine dipstix		

Appendix VI

Research question no 5

Documentary review for EmONC services

To what extent have the emergency obstetric and newborn care services at selected health facilities improved in Kisarawe District?

This question is answered through the researcher responding to an observation checklist documentary review of EmONC services.

1. Documentary review for expected pregnant mothers

To find out the number of pregnant mothers are expected to deliver at EmONC facilities from 2015-2017

Facility name and level	2015	2016	2017

2. Documentary review for delivery at EmONC facilities

To find out the number of pregnant mothers are who delivered at EmONC facilities from 2015-2017

Facility name and level	2015	2016	2017

3. Documentary review for obstetric complications

To find out the number of pregnant mothers who experienced obstetric complications and deliver at EmONC facilities from 2015-2017

Facility name and level	2015	2016	2017

4. Documentary review for Caesarean section

To find out the number of pregnant mothers who underwent Caesarean section at EmONC facilities from 2015-2017

Facility name and level	2015	2016	2017

5. Documentary review for signal functional EmONC services

To find out the performance of facilities on EmONC services signal functions by looking at number of pregnant mother received EmONC services signal functions.

Name of facility	Facility level dispensary 1,HC2 and Hospital 3	Administer parental antibiotics			Administer uterotonic drug(eg Oxytocin)			Administer parental anticonvulsant (magnesium sulphate)			Manual removal of placenta			Removal of retained product			Perform assisted vaginal delivery			Normal vaginal delivery			Perform basic neonatal resuscitation			Perform C/Section delivery			Perform blood transfusion		
		year 2015	year 2016	year 2017	year 2015	year 2016	year 2017	year 2015	year 2016	year 2017	year 2015	year 2016	year 2017	year 2015	year 2016	year 2017	year 2015	year 2016	year 2017	year 2015	year 2016	year 2017	year 2015	year 2016	year 2017	year 2015	year 2016	year 2017			