INFLUENCE OF SERVICES PROVIDED BY COMMUNITY HEALTH WORKERS ON IMPLEMENTATION PROCESS OF CHILD HEALTH CARE PROGRAMMES IN KENYA; A CASE OF MBEERE SOUTH; EMBU COUNTY

REHEMA IBRAHIM

A Research Project Report Submitted in Partial Fulfilment of the Requirements for the Award of Master of Arts Degree in Project Planning and Management of University of Nairobi

2018

DECLARATION

This research project is my original work and has not been presented for any award in any other university.

REHEMA IBRAHIM

Sign…..... Date.....

REG. NO. L50/6555/2017

This research project has been submitted for examination with our approval as university supervisors.

Sign…..... Date.....

DR. PETER KEIYORO

SENIOR LECTURER, SCHOOL OF OPEN AND DISTANCE LEARNING

UNIVERSITY OF NAIROBI

Sign…..... Date**.....**

DR. JOSEPHINE NGUNJIRI

LECTURER, SCHOOL OF PURE SCIENCES AND APPLIED SCIENCES

UNIVERSITY OF EMBU

DEDICATION

I dedicate this work to my family for their moral support and encouragement throughout my study. More so to my mother Alima Muthoni, my father Ibrahim Gathaiya and my daughters Anisa Ndindi and Swabra Ngima for their love and inspiration.

ACKNOWLEDGEMENT

I wish to extend my sincere appreciation to my supervisors Dr Peter Keiyoro and Dr. Josephine Ngunjiri for their guidance throughout the preparation of this Research Project. I extend my personal gratitude to the lecturers and non-teaching staff of University of Nairobi for their unfailing support and encouragement. Finally, special thanks to the National library staff, school mates and co-workers for their encouragement in accomplishing my goal.

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

CHWs Community Health Workers

EHW Extension Health Workers (Ethiopia)

PNC Pre-Natal Care

UNICEF United Nations Children Education Fund

WHO World Health Organisation

MDGs Millennium Development Goals

TBA Traditional Birth Attendants

RoK Republic of Kenya

MHC Maternal Health Care

MDGs Millennium Development Goal

UN United Nations

UNFPA United Nations Fund for Population Affairs

PHC Primary Health Care

NMR Neonatal Mortality Rate

NHSSP National Health Sector Strategic Plan

MMR Maternal Mortality Rate

HIV Human Immunodeficiency Virus

FCHV Female County Health Volunteer

NGO Non-Governmental Organization

CHEWSs Community Health Extension Workers

ITNs Insecticide Treated Nets

PMTCT Prevention of Mother to Child Transmission

ANC Antenatal Care

PNC Post Natal Care

ABSTRACT

The purpose of the study was to determine the influence of services provided by community health workers on implementation of child health care Programmes in Kenya; a case of Mbeere South, Embu County. The objectives of the study were to determine how the referral services provided by community health workers influenced the implementation of child health care Programmes ; assess how provision of health education services influenced implementation process of child health care Programmes ; establish the influence of Social Support Services and Advocacy on implementation process of child health care Programmes ; to determine how provision of preventive materials and supplies influenced implementation process of child health care Programmes. The study adopted Cross-sectional survey design and targeted a populations of 346 households that had children aged 5 years and below and being served by 32 community health workers and 4 Community Health Extension Workers. Considering that the population size for Community Health Workers and Community Health Extension Workers was small, a census was carried out while sample size of households was determined using statistical formulae provided by Yamane for calculating sample sizes at 95% confidence level and e = 0.05, the final sample size consisted of 186 households (with children aged 5 years and below), 32 Community Health Workers and 4 Community Health Extension Workers hence this gave a total of 222 respondents. Questionnaires, observation schedules and interview were adopted as main primary data collection sources. Data was examined for completeness, consistence and reliability. The second stage involved data coding with the help of Statistical Package for Social Sciences. Thereafter, results were analysed using descriptive statistics. The findings showed that CHW provided sufficient referral services to mothers with new born hence high implementation process of child health services programmes. The study also found out that mothers in Mbeere South are well informed and advised on child health care and maternal healthcare from Community Health Workers and this could lead to low rates of mortality cases for new born babies in the area. Based on the third variable the study found out that Community Health Workers had delivered their best when advocating for community leadership support and initiative towards sensitising the people on the importance of safe pregnancy and motherhood and lastly the study found out that Community Health Workers have been able to provide Preventive materials, that is; immunization of newborns, family planning methods and nutritious food. Findings on the "Community Health Workers advice on seeking antenatal care" 2(1%) respondents strongly disagreed ,8(4%) disagreed,10(6%) were undecided,35(19) agreed while majority of the households 125(69%) strongly agreed The respondents were asked to state whether Community Health Workers provide information provision through newsletters and brochures, 3(2%) of the participants strongly disagreed,14(7%) disagreed,15(8%) undecided, 28(16%) agreed and majority of the participants 120(67%) strongly agreed. 4(2%) of the participants strongly disagreed with statement "Community Health Workers advocate for community leadership support for safe pregnancy and delivery of a healthy new born scale The findings showed that 8(4%) of the participants strongly disagreed with the statement Community Health Workers provide community based distribution of immunization of newborns,12(7%) disagreed, 12(7%) undecided,20(11%) agreed and majority 128(71%) strongly agreed. It was concluded that implementation process of child health care Programmes in Mbeere south Embu county Kenya was above average this implies that Community Health Workers had delivered their best. The study recommends Community Health Workers require continuous and regular training to be provided to them by the relevant authority providing training that would allow Community Health Workers to have as much flexibility in their skills as they currently have in their schedules may increase the effectiveness of Community Health Workers.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

According to Black et.al., (2003) about 10.8 million children under five years of age die in the world each year mainly from preventable conditions or diseases that could be treated effectively; 42 countries account for 90% of child deaths while 6 countries account for 50% of the deaths. Causes of death differ substantially from one country to another; however, pneumonia and diarrhea remain the illnesses that are most often associated with child deaths. The lives of an estimated million children could be saved each year if proven interventions such as antibiotics for pneumonia and oral rehydration therapy for diarrhoea were universally available in the 42 countries responsible for 90% of child deaths (Black et.al. 2003)

According to World Health Organization (2007) utilization of community members to render certain basic health services to their communities is a concept that is scaling up across the globe. However, there have been innumerable experiences throughout the world on both large and small-scale community-based initiatives. The World health report 2006 entitled working together for health; recognizes shortage of professional health workers as one of the key ingredients in the growing human resource crisis, particularly in low-income countries (WHO, 2006). The report advocates for a review and subsequent delegation of tasks to the "lowest" category of community health workers (Community Health Workers) who can perform the tasks successfully (WHO 2006). It is in this context that the concept of using Community Health Workers has been adopted (WHO, 2007).

Muga *et.al.,* (2010) affirms that around 70% of child deaths in the communities occur at home, without any contact with the health system, these deaths are caused by preventable or amenable that is easily curable diseases such as malaria, measles, acute respiratory infections, pneumonia,

diarrhoea and malnutrition. Community health workers (Community Health Workers) are an instrumental group of health workers who provide these health care services at the community level (Bhutta *et. al.,* 2010). Evidence shows that Community Health Workers can be effective in improving population health in Low and Medium Income Countries (LMICs) (Gilmore and McAuliffe 2013; Perry, Zulliger, and Rogers 2014). Community Health Workers are extensively involved in the provision of promotive, preventive and some basic curative health care services, often substituting for professional health workers as a result of task shifting in a context of constrained human resources for health (Chopra *et. al.,* 2008). Thereby, Community Health Workers extend services hard to reach groups and areas, delivering health interventions right in their communities, which tends to be more equitable than services delivered at health facilities (Barros *et. al.,*.2012).

In the United States, community health workers are an essential component of the health care delivery system. They provide the critical link between the health care and human service system and their communities (Ballester, 2005). Community health workers (Community Health Workers) improve access to and increase utilization of primary health care, reduce costs of care, improve quality of care, and reduce health disparities. They achieve these goals by serving as the bridge between clients in need and needed health care and human services. In northern India, the neonatal mortality rate (NMR) fell by 25% in two years after community health workers (Community Health Workers) were trained in essential new-born care, identification and special care of at-risk infants and referral to health facilities when appropriate (Prasad &Muraleedharan, 2007). According to Wangalwa*et. al., (* 2012) in Guatemala, the infant mortality rate declined by 85% when an immediate evidence-based treatment of infants began in the community, with accompanied referral to a nearby hospital.

In Sub Saharan Africa many countries face the challenge of organizing health service delivery in a manner that provides quality and accessible health care to their populations against a background of economic recession and limited resources. In response to these challenges, different governments have been implementing health sector reforms. Kenya, Uganda, Ghana, Liberia and South Africa have implemented national Programmes for community health workers (WHO, 2010). In Liberia, the inclusion of Community Health Workers in health services is in this regard important for advising mothers on visiting a health facility for prenatal visits, and also identifying possible complications that would require treatment at a health facility, and that a woman would then possibly have time to reach before the complications become severe (MoHSW, 2007b). In this way, Community Health Workers can be very effective, as they can get in contact with all the women in their community regardless of societal position, and ensure they seek the right treatment and are aware of how they must look after themselves.

Kenya is one of the 42 countries accounting for 90% of all under-five deaths in the world. The findings of the 2013 Kenya Demographic and Health Survey (KDHS) reveal that one in every nine children born dies before age five, mainly of acute respiratory infection, diarrhea, measles, malaria, and malnutrition. That major challenges remain in the effort to reduce child mortality in Kenya is evidenced by the continued increase in mortality rates since the 1990s. In the years between the 1970s and 1990s, infant and child mortality declined rapidly in Kenya because of the global initiatives to improve child health. For various reasons, this trend has reversed, and the result is that the infant mortality rate increased from about 60 per 1,000 in 1990 to 74 in 1998 and 77 in 2003, while under-five mortality continued to increase from about 90 per 1,000 in 1990 to 112 in 1998 and 115 in 2003 (National Council for Persons with Disability, 1994; NCPD, 1999; CBS, 2004). Given the worrying trends in infant and child mortality rates, there is a clear need to assess current practices in the management of childhood illnesses and identify opportunities for intervention. Holistic approaches to improving child survival, such as the Integrated Management

of Childhood Illnesses (IMCI) strategy, are one set of practices that have been shown to improve health outcomes for children (KNBSES, 2013). Conceptually, holistic approaches encompass components from the health facility such as availability of drugs and supplies, components from the health system such as skills training, and the family and community component of care seeking practices (KNBSES, 2013)

Kenya has recorded an increase of almost 20 per cent in immunization coverage over the past four years. According to administrative data provided by the Ministry of Health, 84 per cent of children less than one year of age have received all the scheduled routine vaccines. (UNICEF 2016). This shows improvement from 65 per cent reported in the 2008-2009 KDHS survey. The number of districts reporting less than 80 per cent was also reduced to 27 per cent (49 out of 153 districts) from 41 per cent (61 out of 149 districts) between 2010 and 2016. Although the number of unimmunized children has declined over the years, an estimated 176,000 children did not receive any routine vaccines in 2015. The majority of the unvaccinated children live in the remote districts of Northern Kenya and other pastoral and mobile communities. The former Rift Valley and Nyanza provinces accounted for half of the children not vaccinated in 2015. The prevalence of low birth weight babies (less than 2,500 grams) is estimated to be at 6 per cent.134 These babies have low immune competence and are likely to suffer from non-communicable diseases such as being overweight.135 Low birth weight is also a risk factor of infant mortality. (UNICEF 2016)

Low weight for height among children under-five remains also a public health problem in Kenya with a national prevalence of 6.7 per cent,136 the third highest rate in the ESA region. Acute malnutrition poses a direct threat to the reduction of under-five mortality in Kenya by increasing the risk, between four to nine times, of an acutely-malnourished child dying compared to a well-nourished child. Annually, between 300,000 to 400,000 Kenyan children suffer from this life-threatening condition. There are wide ranges of disparities in the prevalence of child wasting

depending on the geographical area and wealth quintiles as shown in the graph below. The former North Eastern Province has an acute malnutrition rate of 19.5 per cent, which is about three times the national average. There is also important seasonal variability linked with the food security situation and other co-morbidity factors such as a diarrhoea outbreak. (KNBSES, 2013)

To achieve Vision 2030 Kenya has taken significant steps toward the realization of human rights by making progress in achievement of the Sustainable Development Goals (SDG). It has made advances in increasing educational enrolment (SDG2), gender parity in enrolments, particularly in primary education (SDG3), reducing child mortality (SDG4), and reducing the burden of HIV and AIDS (SDG6). However, despite progress in reducing child malnutrition, it is still insufficient to reaching the target of 10 per cent of children under 5 underweight. There has also been insufficient progress in reducing maternal mortality (SDG5), and in ensuring access to safe water and sanitation (SDG7). It is recognized that the cost of not addressing child and maternal nutrition far outweighs the cost of the intervention required. (World Bank ,2013)

There are nutrition interventions that have been demonstrated to be amongst the most cost-effective actions to address global problems such as child mortality, improving nutrition outcomes, and protecting human capital. However, without a deliberate and concerted effort, the cost of malnutrition in Kenya is estimated to reach Kshs. 3.2 trillion and 527,000 lives will be lost in the next 20 years. In Embu county Mbeere South malnutrition for children is an underlying condition to 55 percent of all under five deaths with risk of death increasing three folds compared to normal child. Childhood illness is a direct contributor to malnutrition. The high burden of disease among children in the district is of major concern with fever and acute respiratory tract infection being the leading cause of malnutrition. (Kenya Nutrition SMART Survey Reports, 2014)

1.2 Statement of the Problem

Utilizing community health workers has been identified as one approach to address the growing shortage of health workers, particularly in low-income countries and marginalized communities. Evaluation of community health workers 'implementation process in general, is the focus of much attention at this time, as many countries invest in them as a strategy for the achievement of the millennium development goals (Haines *et. al.,* 2007). The effectiveness of Community Health workers (Community Health Workers) has been demonstrated in some studies for example, a CHW Programme in India resulted in significant reduction of low birth weight, preterm births and neonatal sepsis (Marwa,2017). The implementation of the Community Health Workers concept in Kenya is marked by unanswered questions of long term sustainability and programme effectiveness.

Despite the existence of community health workers, reports have shown that cases of Child mortality rate and Maternal Mortality Rate (MMR) continue to increase (UNICEF, 2010). For instance, in the year 2014 there were 28 cases of child mortality against 43 reported in Mbeere South Sub County, Mbeere South, and Embu County. The County has very few health centres despite being the largest sub county in terms of geographical position in Embu County. Majority of the resident feel marginalised due to limited health facilities provided by the Government. Regardless of the huge experience with Community Health Workers the burden of disease continues to increase in magnitude and diversity and relatively little scientific evidence is available to answer basic questions especially the role of community health workers improving child health Programmes. What is not clear is whether the community health workers are delivering their services to residents of the area by targeting child healthcare and if the services offered have an influence the implementation process of child health care Programmes. This put to question the role of community health workers. It is because of these that the study attempts to

investigate the influence of services provided by community health workers in implementation process of child health care Programmes in Kenya; a case of Mbeere south, Embu county

1.3 Purpose of the Study

The purpose of the study was to investigate the influence of services provided by community health workers in implementation process of child health care Programmes in Kenya; A case of Mbeere south, Embu county

1.4 Objectives of the Study

The following were objectives of the study

i. To determine how referral services provided by CHWs influence implementation of child health care programmes.
ii. To examine how provision of health education services influence implementation of child health care programmes.
iii. To assess how Social Support Services and Advocacy on performance of child health care programmes
iv. To determine how provision of preventive materials and supplies influence implementation of child health care programmes.

1.5 Research Questions

The study was guided by the following research questions.

i. How does referral services influence performance of child health care programmes?
ii. How does provision of education services influence performance of child health care programmes?
iii. How does Social Support Services and Advocacy influence performance of child health care programmes?

iv. How does provision of preventive materials and supplies influence performance of child health care programmes?

1.7 Assumption of the Study

The study assumed; that the research instruments provided answers for the study research questions and the study was conducted within the specified timeline and budget; that the respondents provided honest and accurate information.

1.6 Significance of the Study

The challenge and potential difficulties that exist in developing community participation in health programmes are important and are major indicators that are pointing to Kenya missing out on the health-related sustainable development goals. The study findings may benefit people of Embu County especially children, women, Community Health Workers, Ministry of Health (under County and National Government) and future researchers. Primarily, this is aimed at empowering women, men, families, and communities to stay healthy, make healthy decisions and respond to obstetric and neonatal needs and emergencies; strengthen linkages between service deliveries at community level to the health facilities. These benefits accrued as a result of effective delivery of Community Health Workers services.

Community Health Workers may benefit from the findings of this study as their working conditions and environments concerns maybe highlighted for further action by the concerned authorities. The ministry of health at County level utilised the study findings in identifying the best way of promoting child health care through involvement of Community Health Workers . This may end up in reducing child mortality rate and thereby ensuring the achievement of SDGs before the deadline. It is also expected that the study may be of great significance to the National Government in developing policies relating to community access to better, efficient and quality health services. Lastly, the study findings may form basis for further research in the field of community health surveys.

1.8 Delimitation of the Study

The study was conducted in Mbeere South Sub county, Embu County. Mbeere South is an Arid and Semi-Arid Land and therefore the findings of the study was applicable within the designated geographical area and not any other Sub County in Embu .The study examined improvement of child health care Programmes as the main dependent variable and referral services, provision of education services, social support services & advocacy and provision of preventive materials & suppliers as independent variables and therefore other roles will not be covered in this study.

1.9 Limitation of the Study

Getting information was a major challenge this is because most Community Health Workers roles and implementation process relates to issues of morbidity and mortality which is classified as confidential. This challenge was solved by acquiring a letter of introduction from the university and the Director of medical services in Embu County and also the researcher assured all participants confidentiality of the responses they gave.

1.10 Definition of Significant Terms used in Key Terms.

Child mortality: defined as the death of a new-borns aged less than 5 years' months which caused up by preventable diseases.

Community: refers to people who share a common socio-cultural background, religion or habitat.

Community health workers (Community Health Workers): they are practitioners who are usually selected, trained and work within the communities from which they come.

Referral services: refers to the process of d directing or redirecting a patient to a health facility to be reviewed by a health Practioners or specialist for diagnosis, treatment and advice.

Provision of Health Educational services: refers to sensitisation activities on maternal health care Programmes to pregnant mothers by training and conducting meetings.

Provision of Preventive materials- involve provision and delivery of medications to patients' homes that include micronutrients, condoms, and family planning pills by Community Health Workers.

Provision of social support and advocacy- refers to assistance given by Community Health Workers to new born and pregnant mothers on the importance of maternal health. Associated with their pregnancy, delivery and new born status.

1.11 Organisation of the Study

The study consists of five chapters. Chapter One covers the background of the study, statement of the problem and purpose of the study. This is followed by the research objectives, research questions, justification of the study, limitations of the study, delimitations of the study, significance of the study, definition of significant terms and concludes with the organization of the study.

Chapter Two covers the literature review from various sources to establish work done by other researchers, their findings, conclusions and identification of knowledge gaps which forms the basis of setting objectives and research questions of the study. The theoretical and conceptual frameworks are also explained.

Chapter Three covers the research design, target population of the study, sample size and sampling procedures. This is followed by data collection procedures, data collection instruments, validity of the instruments, reliability of instruments, data analysis techniques, ethical considerations and concludes with operational definition of variables. Chapter four covers the findings from data analysis, presentation of findings and interpretation of findings. Chapter five covers the summary of findings, discussions, conclusions and recommendations of the study. It concluded with suggested areas for further research

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter contains the review of related literature on the different roles that Community Health Workers play in improving child health care Programmes. The reviewed literature starts by looking at the global review of improving child health care Programmes, concept of community health worker in relation child health care Programmes. Thereafter, the review of literature follows the objectives of the study, theoretical framework is provided at the end of the review together with conceptual framework and literature summary.

2.2 Implementation process of Child Health Care Programmes

For the past 35 years, the steep decline in deaths among infants and children has provided evidence of an important success story in international development. Mortality has declined steadily at an average of about 1% per year. The absolute number of children under the age of 5 years dying has fallen from an estimated 15 million in 1980 to about 11 million at the end of the 1990s, (UNICEF,2011) Remarkably, this decline has occurred in the face of increased births, spreading resistance to commonly used antibiotics and antimalarial drugs and, most menacingly, the growth of the AIDS pandemic.

Decline in mortality among children under 5 years has stalled in a number of countries and in some the trend has reversed and mortality seems to be rising. In 1998, in more than 50 countries the mortality for children under 5 years was greater than 100 deaths per 1000 live births (Tulloch ,2012). In 12 countries (11 of them in Africa), one in every five children born alive did not survive to the age of five years. Of the nearly 11 million children who will die before their fifth birthday this year, 70% will die from a disease, a combination of a few diseases, or a condition for which safe and effective interventions are readily available in industrialized countries: acute respiratory infections, diarrhoea, measles, malaria, and malnutrition (Tulloch ,2012)

According to Claeson *et. al., (*2011) better access to basic health services including vaccinations, oral rehydration therapy, and antibiotics for pneumonia together with improvements in social conditions including higher standards of living and smaller families living on larger incomes have been important factors in improving the survival rate of children. As deaths among children under 5 years have declined in many developing countries, contributing to both demographic and epidemiological transitions, the proportional mortality accounted for by some conditions has increased: this problem has been relatively ignored by the international health community. For example, the greatest decline in childhood mortality rates has occurred among children in the post neonatal period; this has led to a relative increase in the importance of neonatal and perinatal mortality. Also, gender-specific issues have emerged in some parts of the world, notably on the Indian subcontinent where girls aged between 1 month and 5 years still experience considerably higher mortality and morbidity than boys (Claeson *et. Al.*,2011)

Global strategies for reducing childhood mortality have been of two basic types. The first were ambitious disease-specific, technologically dependent strategies aimed at achieving dramatic, albeit narrow, successes in a relatively short time. The notable failure of the most ambitious Programmes of this type was the malaria eradication Programme launched in the 1950s and abandoned in the 1970s—contributed strongly to a shift in thinking (Newell ,2005)

According to Aylward *et. al., (*2012) neither strategic approach ever totally eclipsed the other. Although attempts to eradicate malaria failed, the ensuing smallpox eradication Programmes is probably the most successful large-scale public health Programmes in history, with the last case of smallpox acquired by human-to-human transmission having occurred in 1977. Important lessons have been learnt from both the failed malaria eradication Programmes and the successful smallpox Programmes; these lessons have been applied to current attempts to eradicate dracunculiasis and poliomyelitis, two Programmes which are on the verge of success.

To an important degree, the appeal of these Programmes is rooted in the acceptance that disease-specific Programmes must, when possible, promote community involvement while contributing to the ongoing development and strengthening of national health systems (Aylward *et. al.*,2012)

In Pakistan, USAID's new Maternal and Child Health (MCH) Programme comprises of five major components, which work through a public private partnership mix, including the Government of Pakistan (GOP), the private sector, the philanthropic sector, nongovernmental organizations, local civil society, and community organizations (USAID 2013). These components are: family planning and reproductive health services, maternal, new-born, and child health services; health communications; health commodities and supplies; and health systems strengthening.

The new flagship MCH Programme is the main vehicle for USAID to meet its Development Objective of "Improved maternal and child health outcomes in targeted areas" for Pakistan. The MCH Programme supports innovative approaches to strengthen the capacity of Pakistan's public and private sectors to deliver high impact, evidence-based health interventions to reduce maternal, new-born, and child mortality and morbidity. The MCH Programme has a comprehensive public and private programme approach in Sindh Province, where it is harmonized with the recently approved Health Sector Strategy of Sindh. Programme activities in other provinces, such as Punjab, will be initiated through private sector and civil society engagement in an effort to complement public sector programmes (1USAID 2013).

The World Health Organization, for example, first developed the Expanded Programmes on Immunization and subsequently the Programmes for the Control of Diarrhoeal Diseases. UNICEF chose four specific interventions on which to focus: growth monitoring, oral rehydration therapy, breastfeeding promotion, and immunization, known by the acronym

GOBI. It later added three more (food, family planning, and female education). Bilateral donors followed, channelling funds into what came to be called ‘‘child survival’’ Programmes; these retained their roots in community-oriented, population- based, primary health care, but at the same time had the appeal of using relatively inexpensive medical technologies to reach specific, stated objectives. (WHO 2013)

Currently in Sub Saharan Africa several efforts have been achieved for example, the multi-agency Roll Back Malaria movement includes components aimed at health systems and at the community. Reduced rates of morbidity and death from malaria, it suggests, should be viewed as markers of improved health systems. Similarly, the Integrated Management of Childhood Illness initiative explicitly incorporates a component of community development; this Programmes evolved from selective primary health care Programmes that aimed to control diarrhoeal diseases and acute respiratory infections in childhood by working with health workers and strengthening health systems. Both of these efforts, and many others currently being implemented (including the poliomyelitis and dracunculiasis eradication Programmes) emphasize the need for community participation, for strong and effective partnerships between public and private sectors, for inter sectoral links, and the need to combine medical technology (WHO 2013)

Kenya has made steady progress in addressing its health needs over the past 20 years, leading to the achievement of several Millennium Development Goals. This progress has included creating a more supportive policy environment and making changes to the country’s governance structure to give greater authority to its citizens and the local government entities that represent them. Implementation of this new structure, which devolves authority and functions from the national government to 47 newly created counties, began in 2013 and is ongoing.

Despite these advancements, inequality persists between the wealthy and the poor, urban and rural areas, and men and women; and the country still faces challenges in securing universal healthcare. More than 6 percent of Kenyan households are impoverished every year due to costly out-of-pocket payments for healthcare services; only half of the 1.6 million adults living with HIV currently receive treatment;3 and the newly formed counties are struggling to adequately deliver health services as devolution continues (USAID 2013).

In response to these challenges, from 2012–2015,5 the USAID- and PEPFARfunded Health Policy Project (HPP) in Kenya with the Ministry of Health (MOH), USAID, and Kenyan partners; Developed national and county-level policies, strategies, and guidelines; Assisted with restructuring and strengthening Kenya's health sector; Promoted equity, inclusivity, and human rights; Mobilized domestic resources for key health areas, including HIV and family planning; Reinvigorated a national dialogue around the need for Kenya to increase sustainable, domestic financing for its health sector; Fostered and strengthened decentralized health systems in 47 new counties and Built financing and governance (Kimani &Maina, 2015)

In order to reduce mortality among children under five, the government of Kenya, through the Ministry of Health, has developed and implemented new approaches to child survival efforts. The Kenyan government is also committed to the achievement of Millennium Development Goal number 4: reducing the infant and under-five mortality rates to 21 and 32 per 1,000 childbirths respectively by the year 2015. This section reviews the key child survival strategy being implemented in Kenya, Integrated Management of Childhood Illnesses (IMCI), as well as recent evidence from health facilities on the implementation of this strategy. The IMCI strategy implemented by the Government of Kenya, in collaboration with the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), and other partners, encompasses a range of interventions that combines prevention and better management of childhood illness with nutrition, immunization, maternal health, and other health Programmes

(Kenya National Health Sector Strategic Plan II 2005-2010). For example, Kenya's child survival Programmes includes immunization through the Kenya Expanded Programmes on Immunization (KEPI), enhanced nutrition through growth monitoring, and intensified efforts to combat malaria through promotion of insecticide-treated bed nets (Ministry of Health, 2014)

2.4 Referral Services and implementation process of child health care Programmes.

According to Kahn (2008), Community health workers function as intermediaries between community and institutional health care services The Ministry of Health Kenya outlines that the roles of Community Health Workers is to provide information, education and communication on current knowledge, attitude and practices on safe pregnancy and delivery of a healthy new-born, assist the mother and family to formulate an Individualised Birth Plan, including emergency preparedness and complication readiness, Promote at least focused ANC visits beginning early and skilled birth attendance, Promote PMTCT- Along the continuum of pregnancy, delivery and postnatal period, Promote postnatal care including the use of postpartum FP. Rok(2012) sates that Community Health Workers in Kenya are supposed to promote skilled birth attendance by disseminating key messages to support safe pregnancy & delivery of a healthy new born and timely referral. A key aspect in ensuring a good maternal health service is a functional referral system.

Community Health Workers possess indispensable knowledge about the challenges faced by patients who seek healthcare. Since they make daily rounds to the homes of the patients and accompany patients to the clinics, community health workers understand first-hand the unique needs of the local patients. They also see the effects of illness and poverty in their community. Their insights are important for shaping healthcare policies and healthcare delivery methodologies (WHO ,2007)

According to Partners in Health (2011) observed that with the low number of health professionals, Community Health Workers provide both basic treatment and by referrals community members who would otherwise be unable to access care. Their ability to reach vulnerable patients in their homes means that patient health need not depend entirely on their ability to make frequent clinic visits and travel long distances in search of medical attention. Access to phones or vehicle, with emergency funds or fuel to transfer urgent cases day or night is extremely important. Good record keeping and use of detailed referral letters will assist in reducing delay in the care for women with obstetric emergencies and severely ill new-borns.

Effective communication between health care providers at both the community level and at the point of referral is essential for management of obstetric emergencies and for ensuring continuity of care. Community Health Workers improve access to care by linking affected communities and the clinics that serve them and by alerting medical staff to ill patients, to families with special needs, and to community concerns (Partners in health, 2011). They liaise between medical professionals and the public (Partners in Health, 2011). Community Health Workers fill many important roles. Mainly they are the glue between their organization and the community. They provide a bridge between the professionals and clients and are able to communicate with both. They share information with the community about health and resources while also being the eyes of the clinic. Community Health Workers improve maternal and child health by connecting community members to antenatal care, referring pregnant women to facility-based services for emergency obstetrical care, preventing neonatal infections.

2.5 Provision of Health Education Services and perfomance of child health care Programmes.

According to Houston (2018), community health workers are successful in providing health education because they are from the community; therefore, a trustful relationship is already established and integration into the community has already occurred. Elsewhere Partners in Health (2011) observed that CHW can provide basic clinical support and health education that may promote primary as well as secondary disease prevention. Community Health Workers can play a vital role in working within a community-based team to educate women on the importance and how to take care of the children. Also Community Health Workers play a major role in empowering women to attend antenatal, delivery, and postnatal care with a skilled professional (Population Council,2012) A survey conducted by WHO, (2007) exposed that Community Health Workers are involved with their communities providing predominantly health education, information/referrals and translation services in the areas of, Maternal and Child Health/Perinatal and Family Planning. Community Health Workers provide general health education as well as how to feed children with the right diet, how to bath children especially the new-borns, family.

2.6 Provision of Social Support & Advocacy and perfomance of child health care Programmes

Community health workers advocate for community leadership support for safe pregnancy and delivery of a healthy new-born Provide community based Essential New-born Care (RoK, 2012). Community Health Workers serve as counsellors, helping poor patients overcome the barriers that prevent them from seeking vital childcare and maternal healthcare. Patient barriers to care include transportation, lack of awareness, fear, and healthcare costs. Community health workers are knowledgeable about local needs and sensitivities, and thus are in a position to

gain their patients' trust and to bring them to the clinics to receive medical treatment (Population Council 2012)

Kumar *et. al.,* (2008) reported that a package of community-based mobilisation and education targeted at improved new born care in rural India led to a 52-54% reduction in neonatal mortality and also improved neonatal care practices. Baqui*et. al.*, (2009) documented a 34% reduction in neonatal mortality after 24 months of implementing a package of prevention and curative care through trained. Partners in health (2011) opine that the emotional and informal psychological support that a CHW provides is often as meaningful to community members as their clinic referrals. For example, during HIV outreach, Community Health Workers work to diminish stigma and discrimination through community sensitization. Because Community Health Workers are from the communities in which they work, they can be powerful advocates for community members. They are expected not only to provide medical and psychosocial support, but also to participate in meetings and advocacy activities, build solidarity, and establish a link to healthcare facilities. In developed countries like United States of America, community health workers also build individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counselling, social support and advocacy (American Public Health Association, 2008).

2.7 Provision of preventive materials & supplies and perfomance of child health care Programmes

In matters concerning childcare a country like Brazil Family Health Programmes employs female Community Health Workers to make monthly house visits to deliver prenatal care, vaccinations and check-ups, oral rehydration, and to promote breastfeeding. In the first state where the Programmes was introduced, infant mortality decreased by 32% within five years, inspiring the government to expand the Programmes nationwide. Now with 25,000 health

worker teams (comprised of Community Health Workers, doctors, and nurses) that serve 60% of Brazil's population, the Programmes is associated with reductions in infant mortality (Lehmann and Sanders, 2007).A pilot study conducted in Asia , neonatal mortality was reduced through home visits by trained community health workers to promote preventive care/and or to provide curative new-born care (WHO & UNICEF, 2009).

The Kenya Ministry of Health indicates that the work of Community Health Workers is to distribute preventive materials and supplies (ITNs, nutritious foods), Community Based Distribution of Contraceptives (level 1:- pills, condoms). The ministry guidelines also show that Community Health Workers provide universal access to family planning has also been shown to reduce maternal morbidity and mortality as well as improve child survival (RoK, 2012). Community Health Workers can deliver medications to patients' homes, provide directly observed therapy, offer first-aid (such as preventing significant bleeding) prior to obtaining the necessary urgent professional care patients may need (Partners in Health, 2011), Community Health Workers are involved in promoting breastfeeding, advocating for and referring to family planning services, and encouraging HIV testing and enrolment in programmes to prevent mother-to-child transmission of HIV.

According to WHO, (2007) Community Health Workers keep a lookout for people who show signs of developing a serious condition. Identifying and treating a disease at an early stage makes it less dangerous and less expensive to treat, thereby reducing the overall financial burden on the healthcare system. The regular home-based distribution of micronutrients to pregnant women, principally iron and folate, by Community Health Workers has been associated with favourable results for birth weight and mortality in neonates and pre-term infants: intrauterine growth restriction is reduced by 14% (Bhutta*et. al.,* 2008).These micronutrients can be provided to patients at health facilities or at drug shops, but when

Community Health Workers provide them through routine periodic contact with families, the coverage rate is much higher.

In a country like Nepal which is one of the least likely countries to be a leader in improving the health conditions of its people. Female Community Health Workers (FCHVs) are widely seen as one of the most important contributors to Nepal having one of the fastest rates of decline of under-five mortality rates in the world and to achieving its MDGs for child and maternal health in 2010. FCHVs first gained widespread recognition for achieving high levels of coverage of vitamin A distribution. Now, with only 18 days of training, they provide family planning, diagnose and treat child illnesses (including childhood pneumonia), distribute misoprostol to pregnant women who plan to deliver at home, and provide home-based neonatal care (Perry and Zulliger, 2012). In Bangladesh has one of the most vibrant NGO sectors in the world, many of whom operate CHW programmes. One NGO, BRAC, has the largest private sector CHW programme in the world, with over 80,000 workers. They provide comprehensive community-based maternal and child health and family planning services (Perry, 2000). Bangladesh also reached its target for child mortality five years ahead of schedule, although its levels of coverage of key services are still not as impressive as Brazil's, where there are more resources to support health programmes (UNICEF & WHO, 2011).

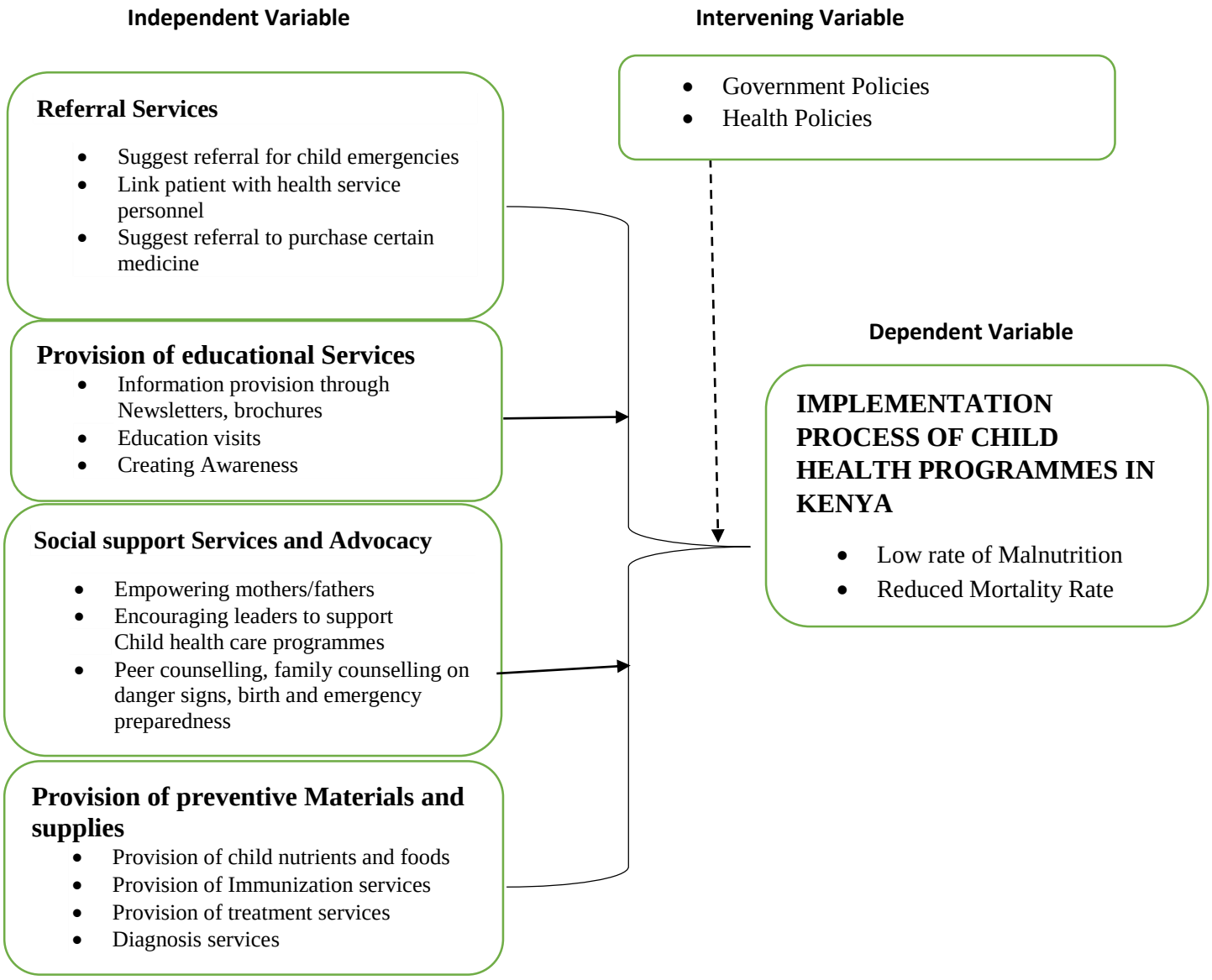
2.8 Theoretical Framework

The study explored role professional theory by O'Brien *et. al.,* (2009). Professional roles define a set of work responsibilities and create implementation process limits where no legal definition exists. Individual characteristics such as gender, educational background, and language proficiency impose limits placed on those roles. Unclear roles can have a substantial impact on the resulting work, potentially causing duplication of effort, difficult work environments, and inefficient operations. In the context of Community Health Workers, an unclear role definition may compromise the quality of patient care, resulting in poor outcomes

and wasted programmematic expenditures. To clarify roles, relevant power structures establish rules or policies, such as job descriptions. According to O'Brien *et. al.,* (2009), as roles develop greater complexity and pose substantial potential risk to members of society, legal and regulatory mechanisms protect both society at large and the person fulfilling a formal role. This process of role development is particularly evident in the established healthcare workforce of doctors, nurses, and other medical professionals. Role development theory also provides insight into how to create new formal roles, such as Community Health Workers, in the healthcare system. Creating a new formal role requires that the developer identify a need, determine the selection criteria and training requirements, establish implementation process guidelines, and outline the evaluation process. Failure to do so creates the risk of poor role clarity and inconsistent role performance, with a resulting threat to the quality of work that is produced. In this study, the research assumed that based on the MoH guidelines (RoK, 2012) on the specific roles of Community Health Workers in improving child healthcare Programmes in Kenya.

2.9 Conceptual Framework

In this research, the conceptual framework was concise description of the phenomenon under study accompanied by visual depiction of the variables underdifferent roles of Community Health Workers in relation to improvement in child healthcare Programmes. The conceptual framework model is given in Figure 1



Regardless of the awareness on the magnitude that child mortality has in the global context as well as importance these deaths have in country's ability to achieve the SDG target, literature from Sub Saharan Africa including Kenya has shown that there are no specific measurements to indicate how child health and maternal health has been reduced for the past decade. This is despite the fact that evidence-based knowledge exists of interventions that have the potential to reduce mortality rate like the involvement of Community Health Workers in addressing mortality rate. The specific roles that Community Health Workers play in reducing mortality rate has not been adequately documented and researched as per the literature reviewed. Efforts have been made in Western and Asia countries (Brazil, India, Nepal and United States) to

decrease maternal health through investment on community health workers but literature on the Kenyan context is missing. This among others forms the study research gap that the study intends to investigate

2.11 Summary of literature

The reviewed literature has provided evidence on similar research studies conducted in different geographical settings across the world. For example, In Pakistan, USAID's new Maternal and Child Health (MCH) Programme comprises of five major components, which work through a public private partnership mix, including the Government of Pakistan (GOP), the private sector, the philanthropic sector, nongovernmental organizations, local civil society, and community organizations. These components are: family planning and reproductive health services, maternal, new-born, and child health services; Health communications; Health commodities and supplies; And health systems strengthening. In Sub Saharan Africa several efforts have been achieved for example, the multi-agency Roll Back Malaria movement includes components aimed at health systems and at the community. Reduced rates of morbidity and death from malaria, it suggests, should be viewed as markers of improved health systems. Similarly, the Integrated Management of Childhood Illness initiative explicitly incorporates a component of community development; this Programmes evolved from selective primary health care Programmes that aimed to control diarrhoeal diseases and acute respiratory infections in childhood by working with health workers and strengthening health systems. The theoretical and conceptual framework has also been covered.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter focused on the research design to be used in carrying out the study, target population of the study, the sampling design and the sample size, the data collection instruments and techniques, reliability and validity of research instruments, data collection procedures and the data analysis techniques

3.2 Research Design

The study used a Cross-sectional survey design which adopts both quantitative and qualitative methods of data collection. On the quantitative dimension, structured questionnaires were used to survey responsibilities of community health workers in improving children health care Programmes. This approach is considered most appropriate for the study because of its ability to elicit a diverse range of baseline information (Mugenda, 2008). On the qualitative dimension, key informants were interviewed to obtain opinions of Community Health Workers and Community Health Extension Workerson how the roles of Community Health Workers improves children health care Programmes. The researcher used this approach because of its ability to elicit in-depth opinion that qualifies quantitative data source from the Community Health Workers.

3.3 Target Population

The target population for this study consisted of all the households with children under 5 years in Mbeere South Sub County. The researcher purposefully selected that geographical area because it represented the area with the highest average number of Community Health Workers in Embu County (RoK, 2017). Mbeere South population is approximately 40,367. However, the study population involved households that had children below the age of five years. According to the statistics from the Ministry of Health Embu County (2016), there are around

346 households that have babies below the age of 5 years being served by 32 community health workers in Mbeere South. The 346 households, 32 Community Health Workers and 4 Community Health Extension Workers formed the study population considering they are available and their locations and workstations are known. Table 3.1 gives the accessible population for the study

Table 3.1Target Population

Category	**Target Population**
Household with Children Below 5 years	346
CHWs	32
CHEWs	4
Total	382

Source; Ministry of Health Embu County (2017)

3.4 Sampling Size and Sampling Procedures

Sampling means selecting a given number of subjects from a defined population as representative of that population. Any statements made about the sample should also be true of the population (Orodho, 2004).

3.4.1 Sample Size

The key aspect deliberated in determining the sample size is the need to keep it manageable (Kothari,2004). This enables the researchers to derive from it detailed data at affordable costs in terms of time, finances and resources. Considering that the population size for Community Health Workers and Community Health Extension Workers was small, a census was taken. But since the population for households that have children below 5 years was large, a representative sample was determined. The sample size for households that has children less than the age 5 years was calculated using statistical formulae provided by Yamane (1967) for calculating

sample sizes at 95% confidence level and e = 0.05. Where n is the sample size, N is the population size, and e is the level of precision. The sample size will be determined as follows;

$\boldsymbol{n = \frac{N}{1+N(e)^2}}$ $\boldsymbol{n = \frac{346}{1+346\ (0.05)(0.05)}}$ = 186 households. Therefore, the final sample size consisted of 186 households with children aged less 5 years and below, 32 Community Health Workers and 4 Community Health Extension Workers. This gave a total of 222 respondents

3.4.2 Sampling Procedure

Sampling is a procedure of selecting a part of the population on which research is conducted, and which ensured that conclusions from the study is generalized to the entire population. All 32 Community Health Workers and 4 Community Health Extension Workers were selected to participate in the study through purposive sampling technique. For households had children aged 5 years and below stratified simple random design was used to select the sample size.

According to Kothari (2014) systematic random sampling is used to select a sample from members' categories of the total population. This method is useful when sampling frame is available in the form of a list. Considering that the research had a list of the population of households that had children age 5 years and below, 186 out of 346 household women were selected to participate in the study. This means that an interval ratio of 2 (346/186) was used to select the population to participate in the study. In such a design, the selection starts by picking some random point in the list and then every nth element are selected until the desired number is secured. Considering that the researcher had a master list of the population of households that have children less than 5 years, a random number was taken; 7 as a starting point, therefore the next members selected was household number 9th, 11th, 13th, and 15thuntil a population of 186 was arrived at.

3.5 Data Collection Instruments

Questionnaires, interview and Focus group discussion were adopted as main primary data collection sources. The questionnaires were for households (particularly women) while interview schedules were conducted for community health workers in Mbeere South and FGD for Community Health Extension Workers. Use of questionnaire method is advantageous because many of the respondents' information can be captured in an easy, quick and cost-effective manner. The questionnaires were structured according to the objectives of the study. The interview schedule contained open ended question for Community Health Workers on their specific roles that they play in improving children health care in Mbeere South, Embu County. FGD was developed for the Community Health Extension Workers who participated in answering Qualitative data based issues on implementation process of child health Programmes

3.6 Validity and Reliability of the Research instruments

Validity is the accuracy and meaningfulness of inferences, which are based on the research result that is the degree to which results obtained from the analysis of the data represents the phenomena under study. The need to test the content validity of the research instruments is inevitable. This serves to ascertain that the item produced were relevant to the objectives of the study. To test validity of the research instruments of the study the researcher sought assistance of the supervisor to ensure that they are valid.

Reliability is an activity conducted to ensure that the consistency of research measurement tools or the degree to which the questionnaires as a measure of an instrument, measures the same way each time it is used under the same condition with the same subjects (Orodho, 2005). A measure is considered reliable if a research's finding on the same test given twice is similar. Prior to the fieldwork, the researcher carried out a pre-test of the instrument on an adjacent

community unit within the same Embu County. If a reliability value of above 0.7 was obtained, according to Kothari (2004), a reliability index of 0.7 was considered ideal for the study. The purpose of the pre-test was to see the overall feasibility of the study and specifically pre-test the research instrument for reliability and validity.

3.7Data Collection Procedures

The researcher obtained the introduction letter from the University after that, the research permit was obtained from the National Council for Science and Technology to go to the field for data collection. The office of the Ministry county health Officer was informed on the same seeking to give a letter of consent before commencing the research. The researcher made prior arrangements with the administrators of the selected participants to establish a working relationship with them so that the instruments to be administered in the researcher's presence. The sampled participants were visited, questionnaires were issued to the women of selected households who filled and answered the questions upon guaranteed confidentiality. Those who never understood English, the questions were translated to them in mother tongue

3.8 Data Analysis Methods

Two types of data collected during the study that was: quantitative and qualitative. Most data were recorded manually on the questionnaires and the first stage of data analysis involved data editing and cleaning. Data was examined for completeness, consistence and reliability. The second stage involved data coding with the help of Statistical Package for Social Sciences (IBM SPSS Version 20.0). Thereafter, was analysed in descriptive form.

3.9 Ethical Issues

The ethical considerations that the researcher took into account in the study included seeking permission from relevant authorities. Informed consent to carry out the study was sought from all respondents participated in the study. The researcher assured respondents that all the information they provided was to be treated with utmost confidentiality and that their identity was protected. The researcher assured respondents that the information they gave was purely for research purpose.

3.10 Operationalization of Variable

This section presents resents the research variables matrix that involves the measurement scales to be used, tools of data collection, research instrument to be used and tools that will be used for analysis.

Table3.2 Operationalization of Variable

Objective	Variable	Indicator(s)	Scale	Data collecting method	Data Analysis
To determine how referral services provided by CHWs influence implementation process of child health care Programmes.	Referral Services	• Suggest referral for child emergencies • Link patient with health service personnel • Suggest referral to purchase certain medicine	Ordinal	Questionnaire &Interview Schedules	Descriptive statistics
To examine how provision of health education services influence implementation process of child health care Programmes	Provision of health educational Services	• Information provision through newsletters, brochures • Education visits • Creating Awareness	Ordinal	Questionnaire Interview Schedules	Descriptive

Source; Author (2018)

To assess how Social Support Services and Advocacy influence implementation process of child health care Programmes.	Social support Services and Advocacy	• Empowering mothers/fathers • Encouraging leaders to support Child health care Programmes • Peer counselling, family counselling on danger signs, birth and emergency preparedness	Interval	Questionnaire Interview Schedules	Descriptive
To determine how provision of preventive materials and suppliers influence implementation process of child health care Programmes.	Provision of preventive materials and supplies	• Provision of child nutrients and foods • Provision of Immunization services • Provision of treatment services	Ordinal	Questionnaire Interview Schedules	Descriptive

		• Diagnosis services			
	Dependent variable improving child health care Programmes in Kenya	• Low rate of Malnutrition • Mortality Rate • Low rate of disability level	Interval ;	Questionnaire Interview Schedules	Descriptive

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter contains data analysis, presentation and interpretation of findings. The study intended to investigate the influence of services provided by community health workers on implementation process of child health care Programmes in Kenya; a case of Mbeere south Embu county. These findings were reported as a record of all the data collected using questionnaires, interviews and focused group discussion.

4.2 Questionnaire Return Rate

The study targeted a total sample size of 222 respondents (186 households, Community Health Workers 32 and 4 community health extension workers) from that sample size 214 respondents (180 households,30 community health workers and 4 community health extension workers) filled in and submitted the questionnaires, interview schedules and focus group making a response rate of 97%,94% and 100% respectively. The results are presented in Table 4.1

Table 4.1 Questionnaire Return Rate

Categories	Sample size	Returned	Not returned	Percentage Return Rate
Households	186	180	6	97%
CHWs	32	30	2	94%
CHEWs	4	4	0	100%
Total	222	214	8	96%

The finding in Table 4.1 indicate 214 (96%) response rate was good and representative and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. This implies that return rate was appropriate for data analysis

4.3 Demographic Characteristics of Households Mothers

This section covers personal characteristics of respondents based on, age bracket and literacy level. This helped the research in understanding the kind of respondents that they engaged in. The analysis of results is given in the subsequent sub-sections.

4.3.1 Age Category of Respondents

It was also important to determine the age bracket of households that the study dealt with. This could reflect the focus that Community Health Workers have when delivering child health services to child in Mbeere south Embu County. The results are as given in Table 4.2

Table4.2 Age Category of Respondents

Age	Frequency	Percentage
Less than 20 Year	31	17%
21-25 years	62	34%
26-30 years	45	25%
31-35 years	24	13%
36 -40 years	10	6%
40 years and above	8	4%
Total	180	100%

The findings in Table 4.2 results show that 62(34%) of households were aged between 21-25 years, 45(25%) were aged 26-30 years, 31 (17%) were below 20 years, 24 (13%) were 31- 35 years and 8 (4%) were found to be 40 years and above. The findings imply that Mbeere south community households' mothers are middle age and therefore form an important group that can easily benefit from both CHC and MHC services.

4.3.2 Level of literacy of Households

The households were asked whether they were literate or illiterate, the findings are given in Table 4.3

Table 4.3 Level of literacy

Status	Frequency	Percentage
Unable to read and write	56	31%
Able to read and write	124	69%
Total	180	100%

As per the findings in Table 4.3, 124(69%) of mothers were literate and only 56 (31 %) were found to be illiterate. The findings show that most of the respondents were able to read and make a follow-up of Community Health Workers instructions during pregnancy and after delivery. The information also corresponds to age category analysis that showed that majority of women are middle aged 21-35 years and therefore could have benefited from education and adult learning Programmes.

4.4 Implementation process child health care Programmes

The households asked to indicate the frequency to which their child had utilized the various child health care services during and after their pregnancy of the youngest child. The study wanted to know the level of child health care by households in Mbeere south community unit in Embu County. Utilization of child health services was through a scale of utilization: (1) never, (2) rarely and (3) always. The results of the analysis are given in Table 4.4

Table 4.3 implementation process of child health care Programmes

	Always		**Rarely**		**Never**	
Frequency (F) and Percentage (%)	F	%	F	%	F	%
Attendance of antenatal during pregnancy	129	71	40	22	11	7
Attendance of health facility with your new born for check ups	162	90	15	8	3	2
Community Health Workers visit to my home 24 hours after delivery of my youngest child	105	58	60	33	15	9

Results shows that the respondents always attend antenatal during pregnancy 129 (71%) while 40 (22%) rarely attended them and the remaining 11(7%) did not attend the antenatal during pregnancy. This implies that majority of the community members did attend the antenatal during pregnancy. The study was also conducted to check if the community members did go for checkups with newborns for checkup, 169(90%) always attended, 15(8%) rarely attended and the remaining 3 (2%) never attended. Majority of the people did attend the health facilities with newborns for checkups. The study also investigated if the Community Health Workers did visit the community members' home after delivery and the response was as follows 105 (58%) said that they were visited, 60(33%) were rarely visited and the remaining 15(9%) were never visited. Majority of the respondents agreed that the Community Health Workers visited after 24hours of delivery.

4.4.1 Services offered by Community Health Workers in the community

The households were further asked if the recognized the services offered by the Community Health Workers in the community and the response are as shown in the Table 4.5

Table 4.5 Services offered by Community Health Workers in the community

Response	Frequency	Percentage
Yes	148	82%
No	32	18%
Total	180	100

The findings show that 148 respondents (82%) said that they recognized the services offered by the Community Health Workers in the community while the remaining 32 respondents (18%) said that they did not recognize the services offered. From the above study majority agreed that they had recognized the work of the Community Health Workers in the community. This implies that Community Health Workers perform their duties in the community. Community Health Workers play a critical role in the overstrained health care system, filling the information and distribution gap between people wanting health options and the clinics that provide a range of health services to huge populations, particularly in urban poor communities (Estelle *et. al.*,.,, 2012).

4.4.2 Level of satisfaction in terms of services offered to households

The respondents were asked to rate the level of satisfaction in terms of services offered by the Community Health Workers in relation to their initial expectation. The results are as show in the Table 4.6

Table 4.6 Level of satisfaction in terms of services offered to households

	Frequency	Percentage
Totally unsatisfied	3	2%
Not satisfied	15	8%
Fairly satisfied	23	13%
Satisfied	25	14%
Very satisfied	114	63%
Total	180	100

From the findings presented on Table 4.6 the study found out that the majority 114 (63%) respondents felt very satisfied in terms of the terms of services offered by the Community Health Workers , 25 (14%) of the respondents were satisfied with the terms of services provided ,23 (13%) of the respondents were fairly satisfied by the terms of services offered by the Community Health Workers , 15 (8%) of the respondents were not satisfies by the terms of the service while the remaining 2%(3) said that they were totally unsatisfied by the terms of service offered by the Community Health Workers . This implies that the majority of the respondents were very satisfied by the terms of services offered by the Community Health Workers in relation to their initial expectation.

This goes in line with Ballester, (2005) who said community health workers are an essential component of the health care delivery system. They provide the critical link between the health care and human service system and their communities. Therefore, Community health workers (Community Health Workers) improve access to and increase utilization of primary health care, reduce costs of care, improve quality of care, and reduce health disparities. They achieve

these goals by serving as the bridge between clients in need and needed health care and human services.

4.4.3 Community Health Workers Responses on the Responsibilities they undertake in providing child health care services

The Community Health Workers members interviewed were asked to indicate the responsibilities they undertook in the provision of child healthcare services to households in Mbeere south. The results are as shown in the Table 4.7

Table 4.7 Responses on the Responsibilities they undertake in providing child health care services

	Yes		No	
	F	%	F	%
Home visits, health talks, and distribute mineral supplements	28	93	2	7
Referrals of patients to health facilities	25	83	5	17
Making sure that all mothers who are pregnant to attend to antenatal clinics, to give health talk to mother on how to breastfeed a child	29	97	1	3
Provision of FP commodity, take care of those that are pregnant, follow up and counseling, follow up on HIV positive mothers, accompanying them to hospital	26	87	4	13
BP check, the well-being of the mother, urinalysis check, referral for PMTC	29	97	1	3

Results shows that 28 (93%) of Community Health Workers make home visits, provide health talks and distribute mineral supplements to households in the area while 3(7%) said that they did not.25(83%) said that they do make referrals in serious cases that they encounter during their visits whereas the remaining 5(17%) said that they did not make referrals. 29(97%) accompanied pregnant mothers to hospitals, made a follow up on the condition of pregnant women while 1 (3%) did not.26(87%) of the Community Health Workers ensured the provision of Family planning commodity and also follow up for counseling for the HIV positive mothers.29(97%) conducted routine medical checks like blood pressure, urinalysis and referral for PMTC. The responses made by Community Health Workers concurs with Perry and Zulliger (2012) assertions that Community Health Workers are effective at promoting immunization utilization, identifying children who have need immunizations, expanding immunization coverage, and providing immunizations.

4.4.4 Challenges Experienced by Community Health Workers in Provision of CHS

Despite majority of Community Health Workers acknowledging positive impact of provision of child Healthcare services, they were asked to indicate challenges that they encountered. The Results of the analysis are presented in Table 4.8

Table 4.8 Challenges Experienced by Community Health Workers in Provision of CHS

Perception	Frequency	Percentage
Religious beliefs	25	83
Inadequate training on provision	20	67
Sometimes you encounter resistance and they are not ready to listen to you, they think you are wasting their time	27	90
Cultural factors	20	67
Ignorance in women	26	87

From the findings of the table 4.8 above 25(83%) of the Community Health Workers lamented that religious beliefs among some household's members affected effective delivery of child health care services in Mbeere south. On the Community Health Workers parts, 20(67%) of the Community Health Workers complained that they did not have adequate training on how to conduct the provision of child health care. They cited that they have not undergone any training for the past one year. 27(90%) of the Community Health Workers identified that there was reluctance in households to cooperate, laziness in some household members, short-comings from use of family control methods 20(67%) also found out that some cultural factors would hinder the provision of child health care processes.26(87%) said they also faced ignorance in women who would fail to follow proper medications despite numerous visits and talks by Community Health Workers . This implies that the Community Health Workers faced problems in the provision of the child health care services.

4.5 Referral Services and implementation process of child health care Programmes

The first objective of the study and research question was to determine the influence of referral services provided by Community Health Workers on implementation process of child health care Programmes in Mbeere South Sub County. Through a Likert Scale of five 1-Strongly Disagree to 5-Strongly Agree, the household members were asked to rate their responses. The findings are shown Table 4.9

Table 4.9 Referral Services and implementation process of child health care Programmes

	Strongly disagree		Disagree		Undecided		Agree		Strongly agree	
	F	%	F	%	F	%	F	%	F	%
Community Health Workers advice on seeking antenatal care	2	1	8	4	10	6	35	19	125	69
Community Health Workers provide advice on early referral for maternal emergencies	5	3	10	6	15	8	40	22	110	61
Community Health Workers link us with health personnel in dispensaries and health centers	3	2	10	6	17	9	32	18	118	66

The findings on the "Community Health Workers advice on seeking antenatal care" 2(1%) respondents strongly disagreed, 8(4%) disagreed,10(6%) were undecided,35(19) agreed while majority of the households 125(69%) strongly agreed. Based on the statement that "Community Health Workers provide advice on early referral for",5(3%) of the households strongly disagreed,10(6%) disagreed, 15(8%) were undecided, 40(22%) agreed and 110(61%) strongly agreed. On the statement whether Community Health Workers link mothers with health personnel in dispensaries and health centers 3(2%) mothers strongly disagreed, 10(6%) disagreed,17(9%) were undecided,32(18%) agreed and majority 118(66%) strongly agreed.

Based on the findings 4.9 this implies that CHW provide sufficient referral services to mothers with new borns hence high implementation process of child health services Programmes. This goes in line with Rok(2012) sates that Community Health Workers in Kenya are supposed to promote skilled birth attendance by disseminating key messages to support safe pregnancy & delivery of a healthy new born and timely referral. A key aspect in ensuring a good maternal health service is a functional referral system.

According to Partners in Health (2011) observed that with the low number of health professionals, Community Health Workers provide both basic treatment and by referrals community members who would otherwise be unable to access care. Their ability to reach vulnerable patients in their homes means that patient health need not depend entirely on their ability to make frequent clinic visits and travel long distances in search of medical attention. Access to phones or vehicle, with emergency funds or fuel to transfer urgent cases day or night is extremely important. Good record keeping and use of detailed referral letters will assist in reducing delay in the care for women with obstetric emergencies and severely ill new-borns

4.6 Provision of educational services and implementation process of child health care Programmes

The second objective was to examine how provision of education services influence implementation process of child health care Programmes in Mbeere South Sub County. The household members were asked to rate the extent to Provision of educational services were provided to them during and after their pregnancy through a Likert Scale of five 1-Strongly Disagree to 5-Strongly Agree, the household members were asked to rate their responses. This is shown in Table 4.10

Table 4.10 Provision of educational services and implementation process of child health care Programmes

	Strongly disagree		**Disagree**		**Undecided**		**Agree**		**Strongly agree**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
CHW provide information through newsletters and brochures	3	2	14	7	15	8	28	16	120	67
CHW advice on warmth and promoting early and exclusive breastfeeding	5	3	11	6	14	8	10	6	140	78

CHW provided advice on new-born care seeking including immunization	4	2	10	6	8	4	20	11	138	76
CHW promote skilled birth attendance by disseminating key messages to support safe pregnancy & delivery of a healthy new born	4	2	7	4	15	10	30	17	124	69

As per the Table 4.10, the respondents were asked to state whether Community Health Workers provide information provision through newsletters and brochures, 3(2%) of the participants strongly disagreed,14(7%) disagreed,15(8%) undecided, 28(16%) agreed and majority of the participants 120(67%) strongly agreed. On the second statement "Community Health Workers usually advice on warmth and promoting early and exclusive breastfeeding",5(3%) strongly disagreed,11(6%) disagreed,14(8%) undecided,10(6%) agreed and majority 120(67%) strongly agreed. On the third statement "Community Health Workers provided advice on new-born care seeking including immunization" 4(2%) of the participants strongly disagreed,10(6%) agreed,8(4%) undecided,20(11%) agreed and majority 138(76%) strongly agreed. The fourth statement "Community Health Workers promote skilled birth attendance by disseminating key messages to support safe pregnancy & delivery of a healthy new born" 4(2%) strongly disagreed,7(4%) disagreed,15(20%) undecided,30(17%) agreed and majority 124(69%) strongly agreed.

Based on findings in Table4.10, this implies that mothers in Mbeere South are well informed and advised on child health care and maternal healthcare from Community Health Workers and this could lead to low rates of mortality cases for new born babies in the area. Community Health Workers play a major role in empowering women to attend antenatal, delivery, and postnatal care with a skilled professional (Population Council,2012) A survey conducted by

WHO, (2007) exposed that Community Health Workers are involved with their communities providing predominantly health education, information/referrals and translation services in the areas of, Maternal and Child Health/Perinatal and Family Planning. Community Health Workers provide general health education as well as how to feed children with the right diet, how to bath children especially the new-borns, family.

4.7 Social support services and advocacy and implementation process of child health care

The third objective was to establish the influence of Social Support Services and Advocacy on implementation process of child health care Programmes in Mbeere South Sub County. The household members were asked to rate the extent to Social support services and advocacy services were provided to them during and after their pregnancy through a Likert Scale of five 1-Strongly Disagree to 5-Strongly Agree, the household members were asked to rate their responses. The result are show in Table 4.11

Table 4.11 Social support services & advocacy and implementation process of child health care

	Strongly disagree		**Disagree**		**Undecided**		**Agree**		**Strongly agree**	
	F	%	F	%	F	%	F	%	F	%
CHWs advocate for community leadership support for safe pregnancy and delivery of a healthy new born	4	2	3	1	18	10	25	14	130	72
CHWs visited me immediately after delivery of my youngest child	10	6	102	56	10	6	40	22	18	10
CHWs advised on postnatal home self-care, nutrition, safe sex, breast care	2	1	8	4	15	8	30	17	125	69

As per the findings in Table 4.11, 4(2%) of the participants strongly disagreed with statement "Community Health Workers advocate for community leadership support for safe pregnancy

and delivery of a healthy new born"3(1%) disagreed, 18(10%) undecided,25(14%) agreed and majority 130(72%) strongly agreed. On the second statement "Community Health Workers visited me immediately after delivery of my youngest child"10(6%) of the participants strongly disagreed, majority 102(56%) disagreed, 10(6%) undecided, 40(22%) agreed and 18(10%) strongly agreed. The third statement on whether Community Health Workers advised on postnatal home self-care, nutrition, safe sex, breast care,2(1%) strongly disagreed,8(4%) disagreed,15(8%) were undecided,30(17%) agreed and majority 125(69%) strongly agreed.

Based on the findings this implies Community Health Workers have delivered their best when advocating for community leadership support and initiative towards sensitising the people on the importance of safe pregnancy and motherhood. However, CHW have not delivered in making efforts of reaching every household that has a new-born baby within their area of jurisdiction to ensure

that they offer medical advice and support to the new born baby and mother. Community Health Workers serve as counsellors, helping poor patients overcome the barriers that prevent them from seeking vital childcare and maternal healthcare. The findings go in line with Kumar *et. al.,* (2008) who reported that a package of community based mobilization and education targeted at improved new born care in rural India led to a 52-54% reduction in neonatal mortality and also improved neonatal care practices

4.8 Preventive materials and implementation process of child health care

The forth objective of the study was to determine how provision of preventive materials and supplies influence implementation process of child health care Programmes in Mbeere South Sub CountyThe household members were asked to rate the extent to which preventive materials and supplies were provided to them during and after their pregnancy on Likert Scale of five 1-Strongly Disagree to 5-Strongly Agree, the household members were asked to rate their responses. The results are show in Table 4.12

Table 4.12 Preventive materials and implementation process of child health care

	Strongly disagree		Disagree		Undecided		Agree		Strongly agree	
	F	%	F	%	F	%	F	%	F	%
CHWs provide community based distribution of immunization of newborns	8	4	12	7	12	7	20	11	128	71
In the past 12 months CHWs had visited and talked about family planning and how to feed my children	3	2	7	4	13	7	22	12	135	75
CHWs provide distribute, preventive materials and supplies (ITNs, nutritious foods)	4	2	13	7	10	6	28	16	125	69

Based on the findings in Table 4.12, 8(4%) of the participants strongly disagreed with the statement Community Health Workers provide community based distribution of immunization of newborns,12(7%) disagreed, 12(7%) undecided,20(11%) agreed and majority 128(71%) strongly agreed. On the second statement “In the past 12 months Community Health Workers had visited and talked about family planning and how to feed my children”3(2%) of the participants strongly disagreed,7(4%) disagreed,13(7%) were undecided,22(12%) agreed and majority 135(75%) strongly agreed. The third statement on whether the Community Health Workers provide distribute, preventive materials and supplies (ITNs, nutritious foods) 4(2%) of the participants strongly disagreed,13(7%) disagreed,10(6%) undecided,28(16%) and majority 125(69%).This shows that Community Health Workers have been able to provide

Preventive materials to households in mbeere south sub county that is immunization of newborns, family planning methods and nutritious food.

This goes in line with Bhutta*et. al.,.,* (2008) who stated that regular home-based distribution of micronutrients to pregnant women, principally iron and folate, by Community Health Workers has been associated with favorable results for birth weight and mortality in neonates and pre-term infants: intrauterine growth restriction is reduced by 14% .The finding also goes in line with a pilot study conducted in Asia , where neonatal mortality was reduced through home visits by trained community health workers to promote preventive care/and or to provide curative new-born care (WHO & UNICEF, 2009).

4.9 Focused Group Discussion guide for Community Health Extension Workers

Through the focused group Discussion Guide community health extension workers were asked to suggest possible measures through which Child health care services provision can be improved to reduce maternal illness and death in Embu County According to the FGD the Community Health Extension Workers opined that "A lot of sensitization and follow up of health matters. To increase more health talks and formation of more groups especially the young mothers group." Another community health extension workers observed that: "Proper teaching and availability of information before taking the family planning options, thorough counselling of mothers and provision of enough food supplement." In addition, Community Health Extension Workers opined that: "Put some mobile clinics, readily accessible for mothers and their babies, this will reduce the mortality rate."

Based on the researcher analysis of qualitative information on the measures to be introduced is that almost all of them suggested that they required training After ascertaining the perception of household members on the influence of Child health care services provision, the Community Health Extension Workers were asked to give their opinion on the impact of child health care services that Community Health Workers provided. Community Health Extension Workers

opined that: “services provided by community health workers to mothers shows that, women are now delivering in health facilities, the households are going for cancer screening and women have now understood the importance of PMTCT.” The finding implies that there is a positive impact of the Community Health Workers roles in providing child healthcare services to household’s in Mbeere south This is supported by Wangalwa*et. al.,* (2013) who established that there was significant increase in essential maternal and neonatal care practices demonstrates that, community health strategy using Community Health Workers was an appropriate platform to deliver community-based interventions.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter includes a summary of the major findings of the study, discussions, conclusions, recommendations and suggestions for further studies on influence of services provided by community health workers on implementation process of child health care Programmes in Kenya; a case of Mbeere south Embu county

5.2 Summary of the Findings

This section gives a summary of the findings generated in chapter four based on the objectives of the study.

5.2.1 Referral services and implementation process of child health care Programmes

The first objective of the study was to determine the influence of referral services provided by Community Health Workers on implementation process of child health care Programmes in Mbeere South Sub County. The findings on the "Community Health Workers advice on seeking antenatal care" 2(1%) respondents strongly disagreed ,8(4%) disagreed,10(6%) were undecided,35(19) agreed while majority of the households 125(69%) strongly agreed. Based on the statement that "Community Health Workers provide advice on early referral for",5(3%) of the households strongly disagreed,10(6%) disagreed, 15(8%) were undecided, 40(22%) agreed and 110(61%) strongly agreed. On the statement whether Community Health Workers link mothers with health personnel in dispensaries and health centers 3(2%) mothers strongly disagreed, 10(6%) disagreed,17(9%) were undecided,32(18%) agreed and majority 118(66%) strongly agreed.

5.2.2 Provision of educational services and implementation process of child health care Programmes

The second objective was to examine how provision of education services influence implementation process of child health care Programmes in Mbeere South Sub County.The respondents were asked to state whether Community Health Workers provide information provision through newsletters and brochures, 3(2%) of the participants strongly disagreed,14(7%) disagreed,15(8%) undecided, 28(16%) agreed and majority of the participants 120(67%) strongly agreed. On the second statement "Community Health Workers usually advice on warmth and promoting early and exclusive breastfeeding",5(3%) strongly disagreed,11(6%) disagreed,14(8%) undecided,10(6%) agreed and majority 120(67%) strongly agreed.

On the third statement "Community Health Workers provided advice on new-born care seeking including immunization" 4(2%) of the participants strongly disagreed,10(6%) agreed,8(4%) undecided,20(11%) agreed and majority 138(76%) strongly agreed. The fourth statement "Community Health Workers promote skilled birth attendance by disseminating key messages to support safe pregnancy & delivery of a healthy new born" 4(2%) strongly disagreed,7(4%) disagreed,15(20%) undecided,30(17%) agreed and majority 124(69%) strongly agreed.

5.2.3 Social support services & advocacy and implementation process of child health care

The third objective was to establish the influence of Social Support Services and Advocacy on implementation process of child health care Programmes in Mbeere South Sub County. The household members were asked to rate the extent to Social support services and advocacy services were provided to them during and after their pregnancy on a Likert scale of five which was reduced to three; agree, disagree and undecided at the analysis stage. 4(2%) of the participants strongly disagreed with statement "Community Health Workers advocate for community leadership support for safe pregnancy and delivery of a healthy new born"3(1%)

disagreed, 18(10%) undecided,25(14%) agreed and majority 130(72%) strongly agreed. On the second statement "Community Health Workers visited me immediately after delivery of my youngest child"10(6%) of the participants strongly disagreed, majority 102(56%) disagreed, 10(6%) undecided, 40(22%) agreed and 18(10%) strongly agreed. The third statement on whether Community Health Workers advised on postnatal home self-care, nutrition, safe sex, breast care,2(1%) strongly disagreed,8(4%) disagreed,15(8%) were undecided,30(17%) agreed and majority 125(69%) strongly agreed.

5.2.4 Provision of preventive materials and supplies influence implementation process of child health care Programmes

The forth objective of the study was to determine how provision of preventive materials and supplies influence implementation process of child health care Programmes in Mbeere South Sub CountyThe household members were asked to rate the extent to which preventive materials and supplies were provided to them during and after their pregnancy on a Likert scale The findings showed that 8(4%) of the participants strongly disagreed with the statement Community Health Workers provide community based distribution of immunization of newborns,12(7%) disagreed, 12(7%) undecided,20(11%) agreed and majority 128(71%) strongly agreed. On the second statement "In the past 12 months Community Health Workers had visited and talked about family planning and how to feed my children"3(2%) of the participants strongly disagreed,7(4%) disagreed,13(7%) were undecided,22(12%) agreed and majority 135(75%) strongly agreed. The third statement on whether the Community Health Workers provide distribute, preventive materials and supplies (ITNs, nutritious foods) 4(2%) of the participants strongly disagreed,13(7%) disagreed,10(6%) undecided,28(16%) and majority 125(69%).

5.3 Discussion of the Findings

Under this section, the findings summarized in the section of discussion of the findings are linked to the literature in chapter two

5.3.1 Referral services and implementation process of child health care Programmes

The first objective of the study and research question was to determine the influence of referral services provided by Community Health Workers on implementation process of child health care Programmes in Mbeere South Sub County. The findings showed that CHW provide sufficient referral services to mothers with new born hence high implementation process of child health services Programmes. This goes in line with Rok (2012) sates that Community Health Workers in Kenya are supposed to promote skilled birth attendance by disseminating key messages to support safe pregnancy & delivery of a healthy new born and timely referral. A key aspect in ensuring a good maternal health service is a functional referral system.

According to Partners in Health (2011) observed that with the low number of health professionals, Community Health Workers provide both basic treatment and by referrals community members who would otherwise be unable to access care. Their ability to reach vulnerable patients in their homes means that patient health need not depend entirely on their ability to make frequent clinic visits and travel long distances in search of medical attention. Access to phones or vehicle, with emergency funds or fuel to transfer urgent cases day or night is extremely important. Good record keeping and use of detailed referral letters will assist in reducing delay in the care for women with obstetric emergencies and severely ill new-borns

5.3.2 Provision of educational services and implementation process of child health care Programmes

The second objective was to examine how provision of education services influence implementation process of child health care Programmes in Mbeere South Sub County. The study found out that mothers in Mbeere South are well informed and advised on child health care and maternal healthcare from Community Health Workers and this could lead to low rates of mortality cases for new born babies in the area. Community Health Workers play a major role in empowering women to attend antenatal, delivery, and postnatal care with a skilled professional (Population Council,2012) A survey conducted by WHO, (2007) exposed that Community Health Workers are involved with their communities providing predominantly health education, information/referrals and translation services in the areas of, Maternal and Child Health/Perinatal and Family Planning. Community Health Workers provide general health education as well as how to feed children with the right diet, how to bath children especially the new-borns, family.

5.3.3 Social support services & advocacy and implementation process of child health care

The third objective was to establish the influence of Social Support Services and Advocacy on implementation process of child health care Programmes in Mbeere South Sub County. The study found that Community Health Workers have delivered their best when advocating for community leadership support and initiative towards sensitising the people on the importance of safe pregnancy and motherhood. However, CHW have not delivered in making efforts of reaching every household that has a new-born baby within their area of jurisdiction to ensure that they offer medical advice and support to the new born baby and mother. Community Health Workers serve as counsellors, helping poor patients overcome the barriers that prevent them from seeking vital childcare and maternal healthcare. The findings go in line with Kumar *et. al.,* (2008) who reported that a package of community based mobilization and education

targeted at improved new born care in rural India led to a 52-54% reduction in neonatal mortality and also improved neonatal care practices.

5.3.4 provision of preventive materials and supplies influence implementation process of child health care Programmes.

The forth objective of the study was to determine how provision of preventive materials and supplies influence implementation process of child health care Programmes in Mbeere South Sub County. The study found out that Community Health Workers have been able to provide Preventive materials to households in Mbeere south sub county that is immunization of newborns, family planning methods and nutritious food. This goes in line with Bhutta*et. al.,.,* (2008) who stated that regular home-based distribution of micronutrients to pregnant women, principally iron and folate, by Community Health Workers has been associated with favorable results for birth weight and mortality in neonates and pre-term infants: intrauterine growth restriction is reduced by 14% .The finding also goes in line with a pilot study conducted in Asia , where neonatal mortality was reduced through home visits by trained community health workers to promote preventive care/and or to provide curative new-born care (WHO & UNICEF, 2009).

5.4 Conclusion

The conclusion is presented thematically based on the major variables that were examined. The study findings indicate that the implementation process child health care Programmes in Mbeere south Embu county Kenya was above average. The study found out that CHW provide sufficient referral services to mothers with new born hence high implementation process of child health services Programmes. From this study mothers in Mbeere South are well informed and advised on child health care and maternal healthcare from Community Health Workers and this could lead to low rates of mortality cases for new born babies in the area. The study concludes that Community Health Workers have delivered their best when advocating for

community leadership support and initiative towards sensitising the people on the importance of safe pregnancy and motherhood. Also the study concludes that Community Health Workers have been able to provide Preventive materials to households in Mbeere south sub county that is immunization of newborns, family planning methods and nutritious food.

5.5 Recommendations

The study recommends that; First there is need for the county government and National government provide more preventive materials and supplies to Community Health Workers; second the study recommends the CHW role, such that it includes tasks such as taking blood pressure that are now associated with health professionals, may help legitimize the CHW role and increase community member's utilization of CHW services. Third, to increase the rate of providing educational services, the study suggests that there is need for combined stakeholder support to provide Community Health Workers with relevant material and knowledge support on how to address challenges concerning child health care and maternal. The study also recommends Community Health Workers require continuous and regular training to be provided to them by the relevant authority Providing training that would allow Community Health Workers to have as much flexibility in their skills as they currently have in their schedules may increase the effectiveness of Community Health Workers and lastly the study recommends that Community Health Workers should petition local leaders to support their activities of creating awareness on the importance of maternal healthcare services in reduction of mortality rates.

5.6 Suggestions for further research

The study suggests that future research should look on the barriers to utilization of maternal health services by households. The study also suggests future research should look on public health empowerment initiatives in promoting maternal and child health in other counties

References

Babbie, E. (2001). The practice of Social Research. Belmont: Wadsworth Publishing Company.

Ballester, G. (2005). Community Health Workers: Essential to Improving Health in Massachusetts.Findings from the Massachusetts Community Health Worker Survey. Boston: Massachusetts Department of Public Health.

Bhutta, Z.A., Ahmed, T., Black, R.E, Cousens S., Dewey, K., Giugliani, E, *et. al.,*. (2008). What works? Interventions for maternal and child under nutrition and survival.

Bowling, A. (2002). Research Methods in Health. Buckingham, Philadelphia: Open University Press.

Cates, W, Jr. (2010). Family planning: the essential link to achieving all eight Millennium Development Goals. Contraception.

Cates W, Jr., Abdool Karim Q, El-Sadr W, Haffner DW, Kalema-Zikusoka G, Rogo

K, *et. al.,*. (2010). Global development.Family planning and the Millennium Development Goals.Science, 329(5999),

Dawson, P., Pradhan, Y.V., Houston, R., Karki, S., Poudel, D. Hodgins, S. (2008). From research to national expansion: 20 years' experience of community-based management of childhood pneumonia in Nepal. Bulletin of the World Health Organization, 86(5), 339-341.

Global Health Workforce Alliance (2010). Global experience of community health workers for delivery of health-related Millennium Development Goals: a systematic review, country case studies, and recommendations for integration into national health systems. Geneva:

Gopalan, S.S., Mohanty, S. & Das, A. (2012) Assessing community health workers' implementation process motivation: a mixed-methods approach on India's Accredited Social Health Activists (ASHA) Programmes. BMJ Open, 2, 15-57. Haines, A., Sanders, D., Lehmann, U., Rowe, A., Lawn, J. E., Jan, S., Walker, D. G.,

Bhutta, Z. (2007). Achieving child survival goals: potential contribution of community health workers. The Lancet,

Heggenhougen, K.V., Muhondwa, E. &Rutabanzibwa-ngaiza J. (1987). Community health workers: the Tanzanian experience. Oxford: Oxford Medical Publications.

Hermann, K., Van Damme, W., Pariyo, G.W., Schouten, E., Assefa, Y., Cirera, A, *et. al.,., et. al.,*. (2009). Community health workers for ART in sub-Saharan Africa: learning from experience capitalizing on new opportunities. Human Resource Health, 7, 31.

Jokhio, A. H., winter, H. R., & Cheng, K. K. (2005).An Intervention Involving Traditional Birth Attendants and Perinatal and Maternal Mortality in Pakistan. pp. 2091-2099).

Kahn, R.G. (2008). The Role of Community Health Workers in Northeast Brazil.Social Sciences, 52-55.

Lehmann, U. & Sanders, D. (2007). Community health workers: What do we know about them? The state of the evidence on Programmes, activities, costs and impact on health outcomes of using community health workers. Geneva: WHO Evidence and Information for Policy, Department of Human Resources for Health.

Malarcher S, Meirik O, Lebetkin E, Shah I, Spieler J, Stanback J. (2011). Provision of

DMPA by community health workers: what the evidence shows. Contraception, 83(6), 495-503.

Medhanyie *et. al.,*. (2012). The role of health extension workers in improving utilization

of maternal health services in rural areas in Ethiopia: a cross sectional study. BMC Health Services Research, 12, 352.

Meghea, C.I., Li, B., Raffo, J.E., Lindsay, J.K., Moore, J.S., Roman, L.A. (2012). Infant health effects of a nurse-community health worker home visitation Programmes: a randomized controlled trial. Child: care, health, and development,

MoHSW (2007a) Road Map for Accelerating the Reduction of Maternal and Newborn Morbidity and Mortality in Liberia [Online] November. Accessed on 19- 06-2014 from

Mugenda, O. M. &Mugenda, A G. (2003). Research Methods Quantitative and Qualitative Approaches. Nairobi: Act Press.

O'Brien, M. J., Allison P. S., Bixby, R A. & Larson, S. C. (2009). Role Development of Community Health Workers: An Examination of Selection and Training Processes in the Intervention Literature. Am J Prev Med, 37(6 Suppl 1): S262– S269.

Orodho, J. O. (2005). Essentials of educational and Social Sciences Research Method. Nairobi: Masola Publishers.

Partners in Health (2011). Improving outcomes with community health workers (Unit .Partners in Health.

Patton, M.Q. (2002). Qualitative research & Evaluation Methods. London: Sage Publications.
Perry H. (2000). Health for All in Bangladesh: Lessons in Primary Health Care for the Twenty-First Century. Dhaka, Bangladesh: University Press Ltd.

Perry, H. &Zulliger, R. (2012). How effective are community health workers? An Overview of Current Evidence with Recommendations for Strengthening Community Health Worker Programmes to Accelerate Progress in Achieving the Health-related Millennium Development Goal. Johns Hopkins Bloomberg School of Public Health.

Population Council (2012). Community health workers for Maternal and child health.Fact Sheet. www.popcouncil.org

Prasad, B.M. &Muraleedharan, V.R. (2007). Community Health Workers: a review of concepts, practice and policy concerns. International Consortium for Research on Equitable Health Systems (CREHS).

Prata N, Vahidnia F, Potts M, Dries-Daffner I. (2005). Revisiting community-based distribution programmes: are they still needed? Contraception, 72(6), 402-7.

Republic of Kenya (2012). National Guidelines for Quality Obstetrics and Perinetal Care. Nairobi: Ministry of Public Health and Sanitation.

Rothman, K.J. (2002). Epidemiology: AN Introduction. New York: Oxford University Press.

Sanghvi H, Ansari N, Prata NJ, Gibson H, Ehsan AT, Smith JM. Prevention of postpartum haemorrhage at home birth in Afghanistan. Int J GynaecolObstet, 108(3), 276-81.

Sundararaman, T., Ved, R., & Gupta, G. (2012). Determinants of functionality and effectiveness of community health workers: results from evaluation of ASHA Programmes in eight Indian states. BMC Proc, 6, 30.

Tulenko, K., Møgedal, S., Mahmood, M. A., *et. al.,., et. al.,*. (2013). Community health workers for universal health-care coverage: from fragmentation to synergy.

UNFPA (2008a) "Facts about Safe Motherhood" [Online]. Available on UNFPA website, <http://www.unfpa.org/mothers/facts.htm> [Accessed on 17 June 2014]

UNFPA (2008d) "Glossary of Terms" [Online]. Available on UNFPA website, <http://www.unfpa.org/mothers/terms.htm> [Accessed on 19 June 2014].

UNICEF & WHO. (2012). Countdown to 2015.Maternal, New-born and Child Survival. Accountability for Maternal, New-born and Child Survival: An Update on Progress in Priority Countries. Geneva: World Health Organization.

UNICEF (2004). What works for children in South Asia: community health workers? Kathmandu, Nepal: UNICEF.

UNICEF (2010). Integrated Health and Nutrition Survey: Greater Tana River District. Nairobi: UNICEF.

Van Lerberghe, W. and De Brouwere, V. (2001) "Of Blind Alleys and Things that Have Worked" in De Brouwere V, Van Lerberghe W, (eds.), Safe motherhood strategies: a review of the evidence. Antwerp: ITG

Wangalwa, G., Cudjoe, B., Wamalwa, D., Machira, Y. Ofware, P., Ndirangu, M. &Ilako, F. (2013). Effectiveness of Kenya's Community Health Strategy in delivering community-based maternal and new-born health care in Busia County, Kenya: non-randomized pre-test post-test study. Pan Afr Med J, 13(Supp 1), 12.

WHO and UNICEF (2009). Home visits for the new-born child: a strategy to improve survival: WHO/UNICEF Joint statement, Geneva: WHO.

World Health Organization. (2007). "Community health workers: What do we know about them?" WHO Policy Brief. Geneva: WHO.

APPENDICES

Appendix A: letter of transmittal

REHEMA IBRAHIM

P.O. Box 1097,

Embu, Kenya

Dear respondents,

I am a student at University of Nairobi Department of Extra Mural Studies undertaking Masters' Degree in Project Planning and Management. It is a requirement that a student writes a project in the field of study. For that purpose, I request you to spare your time to fill this questionnaire that is intended to find out the role of community health workers in improving child health care Programmes in Kenya; a case of Mbeere South Embu County. Kindly spare some time to fill the attached questionnaire to enable me to complete this study for which I will be very grateful. You are kindly requested to fill in the blank spaces at the end of each question or statement or simply put a tick where appropriate. This information will be used purely for academic purposes and will be treated in strict confidence. Your participation in this study will be valuable as it will contribute to the achievement of the study objectives.

Thanks in advance for your support.

Regards,

Rehema Ibrahim

Signature _____

UON Student

Appendix B: Questionnaire for households of Mbeere South Sub County

Section I: Demographic data

1. Which part of Mbeere South Sub County do you come from _____?

2. Your age bracket Less than 20 yrs. [ ] 21 – 25 yrs. [ ] 26 – 30 years [ ] 31 – 35 years [ ] 36–40 years [ ] 40 years and above [ ]

3. What is your literacy status? Illiterate: unable to read and write [ ] literate: able to read and write [ ]

Section II: Utilization of child health care Programmes.

4.Indicate the frequency to which your child has utilized the following services during and after your pregnancy of the youngest child.

	Always	**Rarely**	**Never**
Attendance of antenatal during pregnancy			
Attendance of health facility with your newborn for check ups			
Community Health Workers visit to my home 24 hours after delivery of my youngest child			

5. Do you recognize the services you offered by Community Health Workers in the community Yes [ ] No [ ]

6. On a scale of 1 to 5 how would you rate the level of satisfaction in terms of services offered by CHW in relation to your initial expectation?

a) Totally unsatisfied (1) [ ]

b) Not satisfied 2 [ ]

c) Fairly satisfied 3 [ ]

d) Satisfied 4 [ ]

e) Very satisfied 5 [ ]

Section II: Community Health Workers Roles in Provision of Child health care Services

7. On the following statements, indicate the extent to which you agree or disagree with them on the provision of child health services by Community Health Workers in your area.

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Referral Services					
Community Health Workers Advice on seeking antenatal care					
Community Health Workers provide advice on early referral for maternal emergencies					
Community Health Workers link us with health personnel in dispensaries and health centres					
Provision of educational Services					
Community Health Workers provide Information provision through newsletters, brochures					
Community Health Workers usually advice on warmth and promoting early and exclusive breastfeeding					

Community Health Workers provided advice on new-born care-seeking including immunization					
Community Health Workers promote skilled birth attendance by disseminating key messages to support safe pregnancy & delivery of a healthy new born					
Social support Services and Advocacy					
Community Health Workers advocate for community leadership support for safe pregnancy and delivery of a healthy new-born					
CHW(s) visited me immediately after delivery of my youngest child					
Community Health Workers visited me during the pregnancy period of my youngest child					
Community Health Workers advised on postnatal home self-care, nutrition, safe sex, breast care					
Preventive materials					
Community Health Workers provide community					

based distribution of immunization of newborns					
In the past 12 months, Community Health Workers had visited me and talked about family planning and how to feed my children					
The Community Health Workers advice on maternal emergencies					
The Community Health Workers provide distribute preventive materials and supplies (ITNs, nutritious foods)					

8. In your own opinion, what can you say on the role of Community Health Workers towards promoting child and maternal health in Mbeere South Sub County?

_____

_____

_____

_____

_____

_____

THANK YOU

Appendix c: Interview questions for Community Health Workers

Instructions

Please answer the questions freely. The information you provide will be treated with utmost confidentiality and will only be used for academic research purposes by the researcher herself.

Gender---------- Age---------- Education Level----------

1. What have been the challenges that you've encountered in the provision of Child health care services?
2. Who would you recommend to deal with the remuneration of a Community Health Workers?
3. What's your experience in provision of child health care services?
4. What are the specific roles that you undertake in provision of child health care services in this area? (Explain them in detail)
5. What's has been the impact (based on your experience and knowledge) of child health care services that you provide in Embu county?
6. How can the challenges that you've encountered be addressed?

Appendix D: Focused Group Discussion guide for Community Health Extension Workers

Location…….

Interviewer code…….

Date of FGD……

I am conducting a study on influence of services provided by community health workers on implementation process of child health care Programmes in Kenya; a case of Mbeere south Embu county. I will be asking you different issues about your overall experience, challenges and possible recommendations, in your work as Community Health Workers .

1. suggest possible measures through which Child health care services provision can be improved to reduce maternal illness and death in Embu County
2. What are factors that influence implementation process of child health Programmes
3. Kindly comment on the supplies and services provided by Community Health Workers ?

I thank you most sincerely for sharing your opinion

Appendix E: Work Plan

ACTIVITIES / **TIME**	Research topic	Chapter One	Literature review	Research Methodology	Proposal submission	data collection and analysis	Final submission
February 13th - 22nd 2018							
March 1st-20th 2018							
March 26th - April 15th 2018							
May							
June							
July							

Source; Author (2018)