PERFORMANCE OF TRAINED CLINICAL OFFICERS IN REPRODUCTIVE HEALTH SERVICE DELIVERY THROUGH TASK SHIFTING: OPPORTUNITIES AND ITS CHALLENGES IN KENYA

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DECLARATION

This Thesis is my original work and has not been presented for a degree in any other university

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DEDICATION

This research thesis is dedicated to Jamin Kijungu, my revered late father who provided me with inspiration with one message that ‘one thing to know and must be definite in your heart is that your tomorrow will be greater than today’.

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ABSTRACT

The world is experiencing a chronic shortage of well-trained health workers with a global deficit of doctors, nurses and midwives being approximately 2.4 million, and with low- and middle income countries having acute human resource crisis. Human workforce Health crisis in Sub-Saharan Africa has been due to the critical shortage especially of the doctors, nurses and mid-wives. To alleviate this shortages, task shifting was recommended in 2004 and approved by the World Health Organization in 2008 in Addis Ababa. In Kenya, under the policy of skills transfer, clinical officers, were trained and task shifted as from 2002 to perform emergency obstetrical and gynecological procedures in order to fill the gaps left by the doctors. The purpose of this study was to determine the performance, challenges and the opportunities in task shifting for the trained clinical officers in reproductive health. The specific objectives of the study was to determine the level of competence, motivational challenges, regulatory, working and policy environment. This was a cross-sectional study design that used both quantitative and qualitative approaches for data collection. Seven selected counties of Muranga, Nairobi, Kakamega, Kisii, Mombasa, Machakos and Nakuru were used for study. To trace the respondents, purposive, snowballing sampling technique was employed. Structured questionnaires were administered and triangulated by both focus group discussions and key informant interviews. Qualitative data was analyzed through content analysis. Performance was measured by observing how well the officer performed a particular procedure besides record retrieval of previously performed operations. The researcher reviewed literature from previous records on trends in reproductive health services since the inception of task shifted clinical officers in 2004. One hundred and fifty clinical officers were targeted for study. A sample of 45 reproductive health clinical officers was captured for study calculated as 30% of the target population for cluster group surveys. The study found out that motivation builds a better, more satisfied and better performing workforce as evidenced by response of further training (66%), provision of housing at facility (53.33%), recognition as specialist (66.66%), increase in service utilization such as ANC (53.34%, deliveries (86.67%), good outcomes in deliveries (80%) and obstetrical operations (93.33%). There was significant statistical evidence of competence in performing task shifted obstetrical and gynecological procedures at p-value 0.05, computed chi-square value of 7.134 against the critical value of 9.488. Sixty six respondents agreed that there was reduced maternal mortality rate as reflected in 2014 Kenya demographic Health survey, increased number of hospital deliveries and good delivery outcomes. Analysis of Variance with a computed value of 95.7, p-value 0.05 and critical value of 2.45 indicated that responses from despondence differed significantly while response for anew act of parliament for the practice of new skills was 100%. The study concluded that the performance level of competence for clinical officers was high and that there existed reasonable degree of motivation and career opportunities for the cadre. The study recommended for the development of task shifting policy framework for the cadre, sensitization of workforce at health facilities on the concept of task shifting and enactment of act of parliament to cater and allow for the independent practice of new skills.

ABBREVIATIONS

AMREF	African Medical Research Foundation
ANC	Antenatal Clinic
APH	Ante Partum Hemorrhage
BTL	Bilateral Tubal Ligation
CARMMA	Accelerated Reduction of Maternal Mortality in Africa
CO	Clinical officer
COC	Clinical officers' council
D&C	Dilatation and Curettage
EMOC	Emergency obstetrics and child care
ENT	Ear, Nose and Throat Discussion
EUA	Examination under Anesthesia
EUA	Examination under Anesthesia
FGD	Focus Group discussions
GHWA	Global health workforce alliance
GLM	Global Labour Market
GOK	Government of Kenya
HRH	Human resource for health
ICPD	International council for population and development
IUCD	Intra Uterine Contraceptive Device

KDH	Kenya Demographic and Health Survey
KII	Key informant Interview
KII	Key Informant Interview
KMHOG	Kenya Ministry of Health obstetric guidelines
KMTC	Kenya Medical Training College
KNBS	Kenya National Bureau of Standards
MBA	Marsupialization of Bartholins Abscess
MCH	Maternal and Child Health
MDG	Millennium Development Goals
MISCS	Multiple Indicator Cluster Survey
MMR	Maternal mortality rate
MNCH	Maternal Newborn and Child Health
MOH	Ministry of Health
MVA	Manual Vacuum Aspiration
NEPAD	New Partnership for Africa's Development
NGQOPC	National Guidelines for Quality Obstetrics and Perinatal Care
NRHP	National Quality for Reproductive Health Policy
NRHS	National Reproductive Health Policy
RCO	Registered clinical officer

REP	Ruptured Ectopic Pregnancy
RHCO	Reproductive health clinical officer
SMDG	Sustainable Millennium Development Goals
SMI	Safe motherhood initiative
UHC	Universal Health Coverage
WHO	World Health Organization

LIST OF TABLES

LIST OF FIGURES

TABLE OF CONTENTS

CHAPTER ONE

INTRODUCTION

1.1 Background Information to the Study

The world is experiencing a chronic shortage of well trained health workers with a global deficit of doctors, nurses and midwives being a pproximately 2.4 million, and with low- and middle income countries having acute human resource crisis. This is according to the (World Health Organization {WHO}, 2007).Maternal and newborn morbidity and mortality have been recognized internationally as health system management priorities. Tied to this is the global concern on how to improve maternal access and utilization of the maternal health services by strengthening the health system through skilled attendants who can perform emergency obstetrical and gynaecological services at delivery (Praxton, Maine, Frey & Lobis, 2005). In 2008, WHO recommended and approved task shifting as a measure to overcome the human health workforce crisis though many countries had implemented this model as an urgent response to health workforce shortage. Task shifting refers to a process of transfer of skills through training from those who are highly trained for a longer period to less specialized workers who have shorter pre-service training and fewer qualifications without compromising on quality (WHO, 2007).

It is acknowledged that, the delivery of health interventions in both public and private facilities require skilled, motivated and adequately supported health workers. Human Resource for Health (HRH) refers to all people engaged in actions whose primary intent is to enhance health. These people include care givers, doctors, nurses, clinical officers, pharmacists, laboratory technicians/technologists/scientists, managerial personnel and

other staff; cleaners, medical records officers, health economists who do not deliver any services to patients directly but are vital to health system functioning and strengthening (WHO, 2006)

The importance of HRH is based on the fact that delivering health services is what health workers do, supported by evidence of a strong correlation between the density, well-being and quality of HRH in a country and population health outcomes. HRH is one of the core building blocks of a health system. The global shortage of health workers has created challenges constraining many countries, particularly those in Sub-Saharan Africa from being able to achieve global, national and county health targets particularly the Millennium Development Goals (MDGs, 2000), the Sustainable Millennium Development Goals (2015), and Universal Health Coverage (UHC) translated as health equity and meeting the population health needs.

Sub-Saharan Africa is home to 3% of the global workforce and has difficulties in recruiting, retaining and managing skilled health workers especially doctors and nurses. The majority of these cadre are concentrated in urban areas leaving 80% of the maternal health services in the hands of paramedics in the rural areas (GHWA, 2003). To mitigate against this rural-urban imbalances in health service provision and in a bid to reduce maternal mortality rate, many countries in Africa adopted a policy of task shifting and sharing strategy (Buchan, 2002).

Task shifting was meant to strengthen workforce by transferring certain skills performed by doctors, nurses and midwives to other health related cadres. In turn, this was to help achieve the Millennium and Sustainable Development Goal, 5 (MDG's,

2000; SMDG's, 2015) which advocated for improvement of maternal health and provide universal access to reproductive health without compromising performance or patient outcomes that would be cost effective. Many countries in Africa including Burkina Faso, Zambia, Mozambique, Malawi, Ethiopia, Ghana, South Africa and Kenya embarked on upgrading skills for middle level physicians specialized in areas such as reproductive health and surgery in order to increase access and utilization of maternal health services (Wilson et al, 2013). In Zambia, a comprehensive review of this specialized cadre was done in 2011 and in Burkina Faso (2013)- all of which acknowledged the success of the project (Gray, 2013 & Hounton, 2009).

In Kenya, the cadre of trained - Clinical Officers were meant to provide 80% of all curative and preventive health services in the rural health facilities and at the district (county) health facilities (COC, 2013). The Kenya Clinical Officers Council (1989) defines a Clinical officer (CO) as a mid-level practitioner of medicine who is qualified and licensed to perform general medical duties such as diagnosis, prescribing and treatment of disease and injury, ordering and interpreting medical tests, performing routine medical and surgical procedures and referring patients to other practitioners. This specialized group in reproductive health have been task shifted to offer emergency obstetrical and gynecological surgical services as it was observed that the general clinical officer played little or no role in the provision of maternal health services in Kenya (KDHS, 2003). This was attributed to lack of knowledge, little interest, lack of adequate training, motivation, statutory challenges or being sidelined by nurses, midwives and doctors.The survey further indicated that 64% of antenatal care is provided by nurses and midwives and the remaining 28% by doctors.This apparent non-

involvement of general clinical officers that have a training component in reproductive health discipline was partially seen as potentially contributing to delay in achieving the 5th Millennium Development Goal (MDG, 2000) and now the Sustainable MDG's (2015) of improving maternal health.

In order to address the non-apparent participation of this general cadre in improving maternal health, the Government of Kenya (GoK) embarked on training specialized clinical officers for two and a half years in reproductive health who could perform emergency obstetrical and gynecological procedures (KMTC, 2002) as part of task shifting under the skills transfer policy in 2002 anchored on the Safe Motherhood Initiative (SME, 2001). Currently 150 Clinical Officers have been trained and task shifted to offer emergency surgical obstetrical and gynecological services (COC, 2015).

According to the Kenya Demographic Health Survey (KDHS, 1998), 42% of births took place in health facilities even though 92% of women received antenatal care at health facility. Subsequent reports (KDHS, 2003; 2008 and 2014) indicated that 9 out of ten mothers reported seeing a skilled health provider at least once for Ante Natal Care (ANC) for their most recent birth in the last five years before survey and an increase in trends by skilled attendance to mothers during ante natal care (ANC) and delivery. Further, the proportion of mothers reporting to ANC to be attended by a health professional increased between 2003 and 2004 from 88% to 96%. The number of births attended by a skilled provider and the percentage occurring in health facilities each increased by similar magnitude about 20% from 2003 to 2014 (KDHS, 2014). This study looked at the competency in performing emergency specified reproductive health

procedures, challenges and opportunities the task shifted cadre faced during the course of their work.

1.2 Statement of the Problem

The delivery of health interventions in health facilities such as maternal and new born health services requires skilled and adequately supported health personnel through doctors, nurses and midwives. However, these cadres continue to experience shortages and poor distribution in health facilities in Kenya. With an average of 19 doctors and 173 nurses per 100,000 population, and a total of 146 health care workers per 100,000 population in Kenya; this is way below the minimum threshold of the World Health Organization staffing level of 36 and 356 doctors and nurses respectively per 100,000 persons, (WHO, 2007, KNBS, 2014). Kenya cannot meet the WHO minimum recommendation of 80% skilled birth attendance at delivery (GHWA, 2014). WHO (2003) found it necessary to introduce and recommend task shifting as a way of mitigating these shortages.

According to Clinical Officers Council (2018), there are approximately 20,000 registered Clinical Officers in the country of which which 150 have undergone task shifting in reproductive health against a doctors population of 8,260. The training and deployment of this specialized clinical officers in rural, peri-urban and urban facilities in Kenya was meant to accelerate progress towards achieving the Post-Millennium Development Goals on Maternal Health. While successive reports indicate relative improvements in coverage, access and utilization of Maternal Health Services, the optimization of this cadre trained under the reproductive health model is yet to be known or established.

The task shifted clinical officers still face challenges attributed to high workload, poor working conditions, weak regulation, and lack of acceptance from the doctors, nurses and midwife cadres, poor supportive supervision has led to low morale and poor performance of this cadre in providing maternal services. This study provides an opportunity to determine their level of performances, challenges and opportunities they encounter with the view of formulating strategies for optimizing specialized clinical officers in contributing to the change in range, the high trend in the numbers and the outcomes in improving quality maternal health services in health facilities (Gray, 2013).

1.3 Hypotheses

Ho: There is no significant relationship between performance and health service delivery bytrained clinical officers in reproductive health.

1.4 Study Objectives

1.3.1 Broad Objective

To assess the performance of trained Clinical Officers in reproductive health service delivery through task shifting and its challenges in Kenya.

1.3.2 Specific Objectives

i. To determine the levels of skill competence by trained clinical officers in performing emergency reproductive health procedures.

ii. To determine the motivation levels by trained Clinical Officers in performing task-shifted roles in reproductive health service delivery.

iii. To establish the regulatory mechanisms available to trained Clinical Officers in performing reproductive health procedures.

iv. To determine the policy environment of the trained Clinical Officers in performing task shifting.

v. To describe the status of the working environment of the Clinical Officers in performing task-shifted roles.

1.5 Research Questions

This study sought to answer the following research questions:

i. What levels of skill competency do trained clinical officers have in performing emergency reproductive health procedures?

ii. What level of motivation have the trained Clinical Officers in performing task-shifted roles in reproductive health service delivery?

iii. What are the available regulatory mechanisms to trained Clinical Officers in performing task-shifted reproductive health services delivery?

iv. How is the policy environment for trained Clinical Officers in performing reproductive health services?

v. What is the working environment for the trained Clinical Officers in performing the task-shifted roles?

1.6 Justification of the Study

Task shifting represents a radical departure from traditional delivery model that depend on specialist worker and could make a major contribution to expanding access to maternal health services. Task shifting has been shown to have the potential to positively contribute to overall health systems srengthening (WHO, 2006). This model tends to provide a strengthened and flexible health workforce that respond to the changing landscape of public health needs as demonstrated in South Africa, Burkina Faso, Mozambique, Zambia and Tanzania (Hounton, 2009). In all these countries the cadre of Clinical Officers are trained as complete physician substitutes with advanced skills to even perform major and emergency surgery across specialities thus solving the human workforce crisis in health. Task shifting frees doctors to use their time and expertise for people with more complicated diseases. In additon, task shifting enables many other people to benefit from receiving treatment in rural health facilities where there are shortages of doctors rather than having to travel to big and far hospitals. In

this way, task shifting helps in expanding and improving clinical outcomes for many patients.

This study seeks to determine the the performance in skills, the challenges and opportunities for task shifting in reproductive health by trained Clinical Officers in Kenya.The study will be useful in providing empirical evidence on how to improve their participation in the provision of maternal health services and therefore inform the development of policies, review in curriculum development in order to improve maternal health services provided by specialized clinical officers in Kenya to accelerating progress towards achieving the health related post millennium development goals and the National Health Sector Strategic and Investment Plan 2013-2018.

The study will also help to enlighten the management of health facilities on strategies to to strngthen the health system through improving the provision of maternal health services.

1.7 Limitation and Delimitation

1.7.1 Limitation

This research was limited to the sampled counties as representative of the whole and that the researcher has no ability to authenticate the information given by the respondent. The study was also be limited to the defined scope, time and budget. The scope, time and budget were tailored to fit into the academic time frame and the availability and adequacy of the resources necessary to effectively and efficiently mount the study.

1.7.2 Delimitation

The researcher pre-tested the research instrument in order to identify and clean inconsistencies that can limit responses, the aim was to elicit quality responses from participants. The literature reviewed was based mainly on cadres with similar professional trainings like clinical officers world wide. The doctors, nurses and other health related cadres could not be included in the study because the study was not meant to create comparisons with cadres of dismilar trainings.

1.8 Operational Definitions of Terms

Caesarean section — A surgical procedure made by incising through the lower abdomen up to the uterus for purposes of delivering a baby in a pregnant woman.

Clinical Officer — A middle level practitioner of medicine who is qualified and licensed to perform general and specialized duties such as diagnosing, prescribing and treatment of diseases and injury, investigating, interpreting, referring and performing routine medical and surgical procedures**.**

Clinician — A doctor having direct contact with patients rather than being involved with theoretical or laboratory studies.

Competency — A cluster of related abilities, commitments, knowledge, and skills that enable a person (or an organization) to act effectively in a job or situation. *Competence* indicates sufficiency of

	knowledge and skills that enable someone to act in a wide variety of situations.
Episiotomy	A surgical incision made to widen the vagina to facilitate the normal birth of a baby.
Gynecology	The study of the female reproductive organs, their structure, functions and related diseases in pregnancy and non-pregnant states.
Health Facilities	Includes public and private locations where maternal health services are provided
Laparotomy	A surgical procedure that involves the opening of the abdomen for purposes of diagnosis and treatment**.**
Macdonald Stitch	A stitch made on a weak cervix that rarely holds a pregnancy to help secure or prevent wastage of a pregnancy.
Marsupialization	An n inverted surgical maneuvers made on a bartholins gland during abscess drainage.
Maternal Health Services	Refers to maternal health during pregnancy, birth and post-partum period
Obstetrics	The study of all conditions affecting a mother and its fetus from time of conception, delivery and 28 days post-delivery.
Pelvic Abscess	Pus formation in the pelvic cavity.

Physician	A person qualified to practice medicine, especially one who specializes in diagnosis and treatment as distinct from surgery.
Task performance	The effectiveness with which job incumbents perform activities that contribute to the organization's technical core either directly by implementing a part of its technological process, or indirectly by providing it with needed materials or services.
Physician	A trained medical personnel who diagnoses, prescribes and treats diseases.
Reproductive Health	This is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, in all matters relating to the reproductive system, its functions and processes.
Reproductive health clinical officer	Trained Clinical Officer who have qualified in reproductive health and can perform emergency obstetrical and gynecological procedures
Task shifting	Task shifting refers to a process of transfer of skills through training from those who are highly trained for a longer period to less specialized workers who have shorter pre-service training and fewer qualifications without compromising on quality.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents literature related to Clinical Officers as one of the health cadres in reproductive health. The chapter is structured into six sections. The first section introduces the global and Sub-Saharan perspectives on clinical officers complete with the cadre's historical background. The second part explains the maternal access and utilization of reproductive health services world wide and the gap deficit in the provision of the service. The third section dissects into the reproductive health policies and strategies used in Kenya in the provisions of quality reproductive health services as a tool in the strengthening of the health system. In the fourth section, the study examines the various studies done elsewhere on the performances of similar cadres of clinical officers as it relates to task shifting. The fifth section critically explains the challenges and opportunities the cadre faces in relationships to enablers and barriers of task shifting. Lastly, the theoretical framework was structured to explain the importance of performance assessment in any organization while the conceptual framework provides the relationships between the explainatory variables and its research outcomes.

2.2 Global Initiatives in Improving Maternal Health

The World Health Organization (WHO, 2006) estimates that 57 countries world wide have a critical shortage of skilled health workers. The organization asserts that the countries would need to increase skilled workforce by 140% to achieve enough coverage for essential health interventions in order to make positive difference in the

health and life expectancy of their populations. The Cairo Declaration (ICPD, 1994) was such an initiative to improve maternal health through provision of conducive environment for access and utilization of maternal health services. To further improve maternal health, the World Health Organization (WHO,2000), came up with a set of eight millennium development goals of which goal number five advocated for improvement of maternal health. All these efforts were meant to strengthen the health delivery systems by contributing towards access and utilization of maternal health services. The overall net effect was to reduce maternal morbidity and mortality rates to acceptable WHO levels of less than 289 per 100,000 live births. To be able, therefore to improve maternal health, well skilled body mass of health workforce was required to provide the required services. In 2002, under the auspices of the millenium development goals(2000) and the country's skill transfer policy, Kenya embarked on training of Clinical officers in reproductive health as a stop-gap measure to provide, enhance and improve maternal health service delivery..

2.3 Historical Perspective of Clinical Officer's in Health Service Delivery

The training of Clinical officers in Kenya began in 1928 with the cadre having been known by various titles over timeThis is according to the Africa Medical Research Foundation, AMREF, (2011). The Clinical Officers Council (1988) defines a Clinical officer (CO) as a mid-level practitioner of medicine in East Africa and parts of Southern Africa who is qualified and licensed to perform general medical duties such as diagnosis, prescribing and treatment of disease and injury, ordering and interpreting medical tests, performing routine medical and surgical procedures and referring patients to other practitioners.

The cadre has been used to strengthen the health system's skilled workforce by providing curative, preventive and rehabilitative services at the health centre and district (county) hospitals. A number of this cadre is specialized at higher diploma levels in areas of Ophthalmology, pediatrics, Anesthesia and reproductive health among other specialties. Many universities in Kenya offer a Bachelors degree in Clinical Medicine for these middle level practitioners. Their licensing board is the Clinical Officers Council (1988).

To address the 5th goal of the Millennium Development Goals (MDG, 2000) which advocated for improving maternal health, this cadre was identified for training in reproductive health in order to offer emergency obstetrical and gynecological services under the skill transfer policy (2002). The clinical Officer was therefore meant to supplement through task shifting the services of doctors who were inadequate and scarce in the rural health facilities.

2.4 Improving Maternal Health and Service Delivery in Sub-Saharan Africa

Following the recommendations and resolutions of the International Conference on Population and Development in Cairo (ICPD, 1994) on reproductive health, many African countries began to draw their national reproductive health strategy that would enable them to strengthen the human health resource workforce in their health systems. One of the key plans was to identify and prioritise reproductive health in order to strengthen the integration of reproductive health services under the safe motherhood initiative. It was at this point in time that the need to train and task shift some health cadres emerged so as to improve provider competences and skills through training of adequate number of skilled health workers for deployment.

Many countries in the Sub-Saharan Africa under the auspices of African Union have made significant progress in improving maternal health. To maintain momentum in reducing maternal mortality as set by the Millennium Development Goals (MDG's, 2000), the African Union launched the Campaign for the Accelerated Reduction of Maternal Mortality in Africa (CARMMA, 2009) under the slogan ''Africa Cares. No Woman Should Die While Giving Life''. CARMMa was then launched in 44 African countries and upto date, it has accelerated the improvement of women and children health on the continent as reported by one of the health commission of African Union in 2015. Many other improvements have been made including the efforts made at the International Conference on Maternal, Newborn, and Child Health in Africa at Johannesburg (2013), Kampala Declaration (2010) and Abuja Declaration (2006). The Johannesburg conference committed African Heads and governments to accelerate the improvement of women and children's health in Africa while Abuja declaration (2006) committed African countries to increase government funding for health to at least 15% of the national budget. The Kampala declaration recognized the immense significance of Maternal Newborn and Child Health (MNCH) by forming a commission at African Union headquartes to monitor and report annually on MNCH.

According to African Union Commission report (2014), the key problem of failure to improve maternal health in Sub-Sharan Africa is due to inadequate national budgetary allocation to the health sector and lack of adequate trained skilled health personnel. That calls for task-shifting among certain cadre of health workers. The commission argues that lack of skilled personnel and poor availability of essential medicines, among other factors have contributed significantly to high burden of maternal deaths in Africa.

The report noted that forty seven (47%) percent of births in Sub-Saharan Africa were attended to by unskilled personnel in 2013 except in North Africa. The report concluded that reducing preventable maternal deaths will contribute to redressing the gender disparities inherent in communities by ensuring that more women and children not only survive but also thrive and contribute to sustainable economic development.

The Global Health Workforce Alliance (2006) reported that 3% of the global health workforce is found in Sub-Saharan Africa which is home to 24% of the global disease burden. The report asserted that two thirds of the Su-Saharan Africa has only one medical school of which is not sufficient to provide enough skilled manpower for their countries. To strengthen the health systems in improving maternal health, many of the countries embarked on human resource capacity building of middle-level medical cadres through task shifting.

In Burkina Faso, the use of paramedicals began as a temporary measure of training doctors but has become a permanent strategy in the face of a crisis in health human resources (Hounton, 2009). Similar trainings were replicated in Tanzania, Malawi, Zambia, South Africa and Kenya (2004). These cadres are utilized interchangeably with medical doctors in performing emergency obstetrical and gynecological surgery and other surgeries across specialties. The aim was to reduce maternal morbidity and mortality rates which are quite high in Africa by supplementing the efforts of doctors who are scarce in the countries' health periphery units.

2.5 Maternal Utilization of Reproductive Health Services

Monitoring the availability and use of obstetrical services is one way of measuring utilization of maternal health services (Adema, 2013). This in turn is affected by the availability, quality, costs, continuity and comprehensiveness of services; social structure and health beliefs. Major factors influencing health care utilization include socio-economic status, skilled attendant supply, and health status at the health care facility, policy change and national values as well as individual risk behavior (Rice et al, 1986). The international techniques of measurement are based on the Multiple Indicator Cluster Survey (MICS) designed for collection of international comparable data. The measurements include rate of delivery at facility, antenatal care attendance by pregnant mothers, skilled attendance care and delivery at the health facility. The Kenya Demographic and health Survey (KDHS, 2003; 2008 and 2014) has been conducting surveys using the MISCS. The results have always indicated that there has been an improvement in the number of pregnant mothers being attended to by skilled attendants as well as an increase in the number of clients using maternal facilities since 2004. It is not clear whether task shifted Clinical Officer in reproductive health have contributed to this improvement since they were first deployed in 2004.

Good access is a prerequisite to high maternal utilization of health services as it brings services closer to the people and makes them cheaper. The entry of trained clinical officers in reproductive health market in 2004 in the quest to strengthen the health system, may have been responsible for an improvement in the number of mothers being attended to by skilled atendants. However, it must be noted that the number of medical schools and medical training colleges in Kenya churning out graduates of medicine

and nurses as well as new funded programs such emergency obstetrics and child care (EMOCO, 2008) could have contributed to this progress.

2.6 Maternal Access to Reproductive Health Services

According to the National Guidelines for Quality Obstetrics and Perinatal Care (NGQOPC, 2013), there are two key interventions that improve maternal health, namely: skilled attendance at delivery, access and availability of emergency Obstetric care. Access is a measure of the ability of a person to receive health care services that lead to high utilization of health services for it ensures that services are closer to the user and is affordable (Wairegi, 2013). Access is measured by assessing coverage of services that includes range of services provided and the population that is able to benefit from the services.

The training of reproductive health clinical officers was meant to increase the number of skilled attendants and improve the provision of quality maternal services. However, the 150 trained officers are far below the required minimum number of 300 to provide easy access for maternal services in county and subcounty hospitals in Kenya (Kmtc, 20018). Access may also be hindered by imbalances in geographical distribution of health facilities related to number and types of facilities available, with some areas having disproportionately more facilities than others. Maternal health service delivery points may therefore not be placed where the clients can make use of them, because of long distances, transport and effectiveness of the referral system.

2.7 Reproductive Health Policy and Strategies

The National Reproductive Health Strategy (NRHS) 1997-2010 was a national response to the program of Action of ICPD (1994) which defined the focus and prioritized the reproductive health components. The key strategy to improving maternal health was to strengthen maternal death review by development of guidelines and increased access to skilled attendance at delivery through the community midwife program.

The National Reproductive Health Policy (2007) states that it is the policy of the government of Kenya to enhance the reproductive health status of all Kenyans by increasing equitable access to reproductive health services and by improving the quality, efficiency and effectiveness of the services at all levels.. This policy brought about a paradigm shift towards a focus on skilled attendance for all pregnant women, thus necessitating a policy change regarding the Traditional Birth Attendants as provider of delivery services. The training of clinical officers in reproductive health was therefore part of the change in policy in transfer of skills for effective service delivery. However, the policy does not address the roles, functions and responsibilities of trained Clinical Officers in task shifting. The new declared policy in Kenya (20013) is that maternal health services are rendered free of charge in all government health facilities and this was meant to enhance task shifting initiatives.

The reproductive health policy in Kenya on clinical officers training and their performance is supported by the reproductive health care bill (2014). One part of the bill deals with safe motherhood and states that maternal care shall be offered by medical practitioners, clinical officers, nurses and community health workers. The bill spells out

that there shall be level five hospital in every county and that the hospital shall have medical practitioners, clinical officers and nurses to offer reproductive health services. The bill further states that the level five shall be equiped with child-birth emergencies and intensive care unit for patients. The bill resonates with the policy and thus it underscores the importance of training clinical officers to handle emergency obstetric and gynecological procedures at this level of service delivery point.

Many African countries have made tremendious progress by formulating various reproductive health policies complete with strategies on how to achieve the intended goals. The goal of Nigeria's reproductive health policy (2010) is to ensure availability and access to full reproductive health information and quality services to the people of Nigeria. One of the priority strategy for achieving this goal is to have healthy pregnancy and child bearing through improving antenatal, delivery, postpartum and new born care by use of trained medical officers, clinical officers and nurses in reproductive health. The policy in Uganda (2004) on reproductive health is to maistream safe motherhood, child survival and adolescent health concerns in the national development process in order to improve the quality of life and standard of living of women within reproductive age and beyond through training of reproductive health service providers and reorientating the system at all levels to better focus and meet the special needs of the women. Uganda trains clinical officers in reproductive health specialization.

2.8 Studies Conducted on Task Shifting performances in Sub- Saharan Africa.

Clinical officers have been identified as an essential human resource for health (MOH, 2015). They constitute a significant frontline health workforce and an initial point of contact wth patients, other clients and communities. It is in this light that many studies

have been conducted to determine their suitability and capabilities to perform task-shifted procedures from medical officers.

Many countries across the world have responded pragmatically by adopting a task-shifting approach. This involves redistributing tasks rationally among health workforce teams so that specific tasks are moved , where appropriate, from highly qualified health workers to health workers with shorter training and fewer qualifications(WHO, 2007).

A number of studies have been conducted on the need for deployment, processes and evaluating of specialized Clinical Officers in Sub-Saharan Africa in order to commence or sustain Task Shifting of health workforce. Research done by the University of Birmingham and published in the British Medical journal (2011) concluded that the effectiveness and safety of caeserian section carried out by Clinical Officers did not differ significantly compared with doctors (Wilson et al, 2011). Better health outcomes including lower maternal mortality rate were observed where Clinical Officers had completed further specialized training particularly in Anesthesia and reproductive health. In Zambia, a study on strengthening Zambia's health workforce through task shifting carried out a comprehensive review of this cadre in 2011 which acknowledged the success of the project. The country had opened a career pathway for Clinical Officers by upgrading skills in internal Medicine, gynecology, paediatrics and surgery (Gray, 2013). The case of Zambia and other countries have resulted into embracing task shifting work model.

In January 2008, at the International Conference in Addis Ababa in Ethiopia, the conference endorsed the WHO (2008) Recommendations and Guidelines on Task Shifting.

The aforementioned research studies from Burkina Faso and Zambia, have therefore shown that there are two key interventions that improve maternal health, namely: skilled attendance at delivery and availability of emergency obstetrics and gynecological care which can easily be solved through task shifting. This one way of optimizing the health workforce in overcoming the health workforce crisis in Africa. The medical licentiates in Zambia and assisistant medical officers as they are known in these two countries, are trained to diagnose, treat, and prescribe and can therefore fulfill many functions in the hospitals that the shortage of doctors would otherwise have made impossible. Likewise, nurse practitioners in Swaziland and enrolled nurses in Malawi have played immense roles in their health systems, particularly in remote areas where it is difficult to get better qualified health professionals to practise. They are therefore used as substitutes for qualified professionals through the process of task shifting.

These studies on task shifting provide a justification for training of clinical officers in reproductive health in Kenya in order to reduce maternal mortality and morbidity. Kenya's maternal mortality rate stands at 448 per 100,000 live births (KDHS,2014) against an acceptable WHO figure of 289 per 100,000 live births. While these figures remain below the regional and Sub-Saharan African averages, they are still high and reflect slow progress in improving reproductive health outcomes for the achievement of Kenya's vision 2030. According to Kenya's reproductive health communication strategy (2016 – 2021), the government aims to reduce the maternal mortality rate by

75% by the year 2030 through deployment of additional primary health workers to heath facilities that provide maternal and child health services. This, therefore, can significantly be achieved through task shifting of clinical officers as demonstrated by studies carried out in other countries.

The work of Wilson (2011), demonstrated that tasks previously performed by doctors can be performed equally well by both non physician clinicians and nurses. WHO (2007) data supports the use of lay health workers to effectively deliver malaria treatment, increase immunization uptake and improve treatment of tuberculosis. The work of Wilson (2011) is supported by the earlier published evidence of WHO (2008). WHO (2008) published a series of evidence-based recommendations and guidelines drawn from various consultation and evidence –gathering on task shifting. The WHO Global recommendations and Guidelines on Task-shifting provided an authoritative framework that could help support and guide wide spread implementation in countries that could choose to a dapt the approach as a national strategy for organizing the health workforce.

Highly skilled doctors are not available in large enough numbers to provide services to the majority of clients especially in the rural areas. Therefore, there is a need to seek innovative ways to make the best use of the available human resources for health and to quickly expand workhealth force capacity. One solution to address this is through task shifting.

2.9 Challenges and opportunities: Barriers and enablers of Task Shifting

Government policies and the values of a country can have a direct effect on health care provision and utilization (Muller, 1986). Health policies are formulated to improve and serve public good and the national well-being of the people. Agood policy on Task shifting is an enabling factor and if well embraced by higher cadres such as the doctors, will serve the national good in health care delivery service.Governments can make task shifting as part of a training policy.

Task shifting is a motivational factor for middle level cadres for it is meant to open a carreer pathway or upwards mobility for the cadres by upgrading their skills in certain specialized areas. This is part of human resource development structure that allows for individual development in taking a higher level of work and thus potentially satisfying the national goals of providing universal health care for all.

Regulatory mechanisms such as registration, licensing and training of the cadres after upgrading skills can either serve as enablers or barriers to task shifting. Allowing the new cadre to practise the new skills privately by providing for the same in their statutory requirements can serve as enablers of task shifting.

Similarly, in the case of barriers to task shifting, poor and discouraging policies, statutory regulations that are impervious and not ready to recognize changes in skill acquisition by the cadres can serve as barriers to task shifting.

Task-shifting has been demonstrated to reduce overhead costs, improve community outreach and provide efficient scale-ups essential for medical procedures and treatment (Hailey, 2018). Key challenges that task-shifted cadres face is basically ethical

considerations such as emotional issues to which they were not prepared for especially in physically demanding tasks where they may have insufficient training, inadequate supervision and reasonable compensation. Hailey (2018) further identifies other challenges of task-shifted cadres as poor integration into health systems which is likely to impact negatively on their prospects of promotion and thus leading to their disempowerment. In Kenya and other Sub-Saharan countries, many doctors have found it difficult to integrate clinical officers and other health workers in the formal health system thus undervaluing them within the service provision system and perpetuating social injustice in human resource workforce for health (Mwai, 2013).

According to Haine's (2007), task shifting is not a single solution to the deeper problem affecting lack of adequate human workforce resource for health. The author suggested that the solution should be that stakeholders must find away of engaging the task-shifted cadre in other ways, without allowing them to overstep the boundary of their responsibilities and making new unrealistic demands for promotion and practice.

2.10 Theoretical and Conceptual Framework

2.10.1 Control Theory (Buchner, 2007) and Performance Theory (Klien, 1989)

Control theory was developed by a social scientist called Buchner in 2007. Control Theory underpins performance management and focuses attention on feedback as a means of shaping behavior or performance as a measure that appreciate the discrepancy between what people are doing and what they are expected to do and take corrective action to overcome the discrepancy. Feedback according to Buchner (2007) is recognized as a crucial part of performance management process. The contribution of

control theory to performance is that it helps to know how successful the health program has been and whether it is meeting its objectives, goals and its desired outcomes. This theory is in line with the intended assessment of the Clinical Officers specialized in reproductive health training in improving maternal health through Task Shifting at health facilities. The challenges and opportunities they meet is part of job feedback mechanisms.

The dependent variable for this theory is performance of Clinical Officers while planning, implementation, feedback and performance appraisal serve as independent variables.

Buchner's theory was an improvement on the performance Theory propounded in 1989 by Klien. Klien theory of performance interrogates self-monitoring behaviour as a tool that compares actions of people and their desired targets. This theory argues that self-monitoring creates feedback controls which in turn reduces the differences between the result standard and observed consequences of actual action. Following this theory of performance, Buchner (2007) concluded that monitoring, feedback and review are the key elements of an effective performance management system. The control theory, therefore, illustrates between theory and practiec thus looking at management from the performers perspective.

Based on this theory, clinical officers this research were observed carrying out emergegency obstetric and gynecological procedures in order to determine their level of performance. When this was done, the actual performance was compared with the optimal or ideal performance for a given procedure. This comparison ws done in order

to identify the discrepancies in performance. The differences between the actual and optimal performances was able to help determine the competence in skill performance by trained clinical officers. The control theory therefore underpins the performance of individuals in organizations.

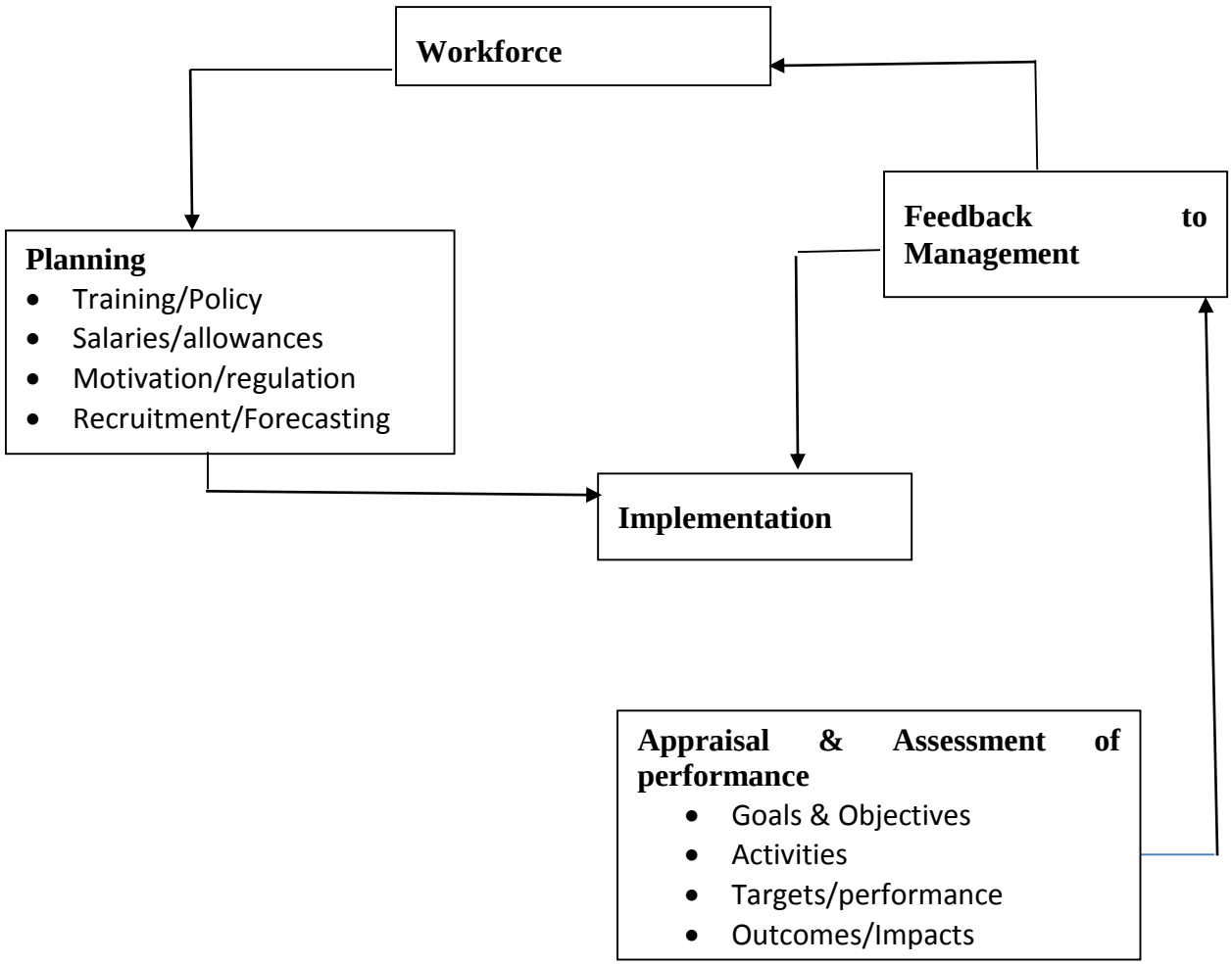

Figure 2. 1: The Control Theory Model (Ruchner, 2007).

2.10.2 The Conceptual Framework on Task Shifting

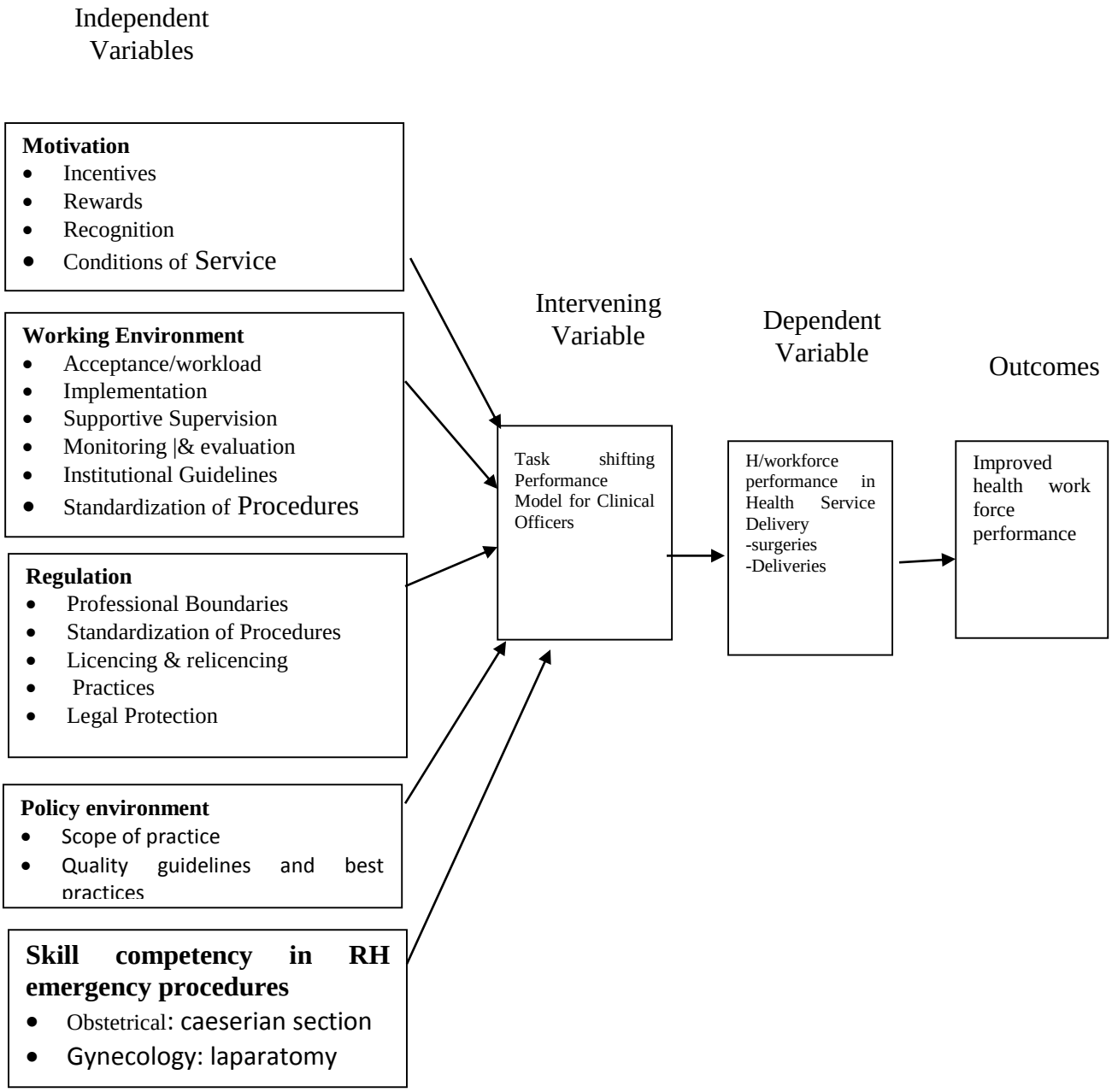

Figure 2. 2: Conceptual Framework on Task shifting: Challenges & opportunities

The conceptual framework is derived from literature on factors that affect performance in a given environment. These include motivation (rewards and initiatives), social environment, and nature of job training (skills, attitudes & knowledge), the policy

environment (planning,strategies and monitoring and evaluation) and any regulating legal framework such as supervision, licensing, registration and legal protection. These factors are the actual explaination to the dependent or outcome variable.

The indicators for measuring skill competency among the trained clinical officers in reproductive health includes the level of performance in gynecological and obstetrical procedures. The officer was rated as either performed or not based on the outcomes of the procedure.The officers were observed by specialists while performing the procdures.

Conditions for working environment was measured by such indicator as work load, supportive supervision, presence of institutional guidelines, monitoring, evaluation and provision of standardization of procedures. To determine motivation, the officers responded to indices such as incentives, rewards, recognition and condition of service. The officers were rated on a three likert scale of either strongly disagree, disagree, not sure, agree and lastly strongly agree. Reulatory mechanisms was also conceptualized as an independent variable. This was measured using idicators such as profeesional boundaries, level of practices, legal protection, licensing and relisencing. The research conceptualized the policy environment as a measurable attribute. This was measured by determining the scope of practice, quality guidelines and comparing with best practices.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter focused on the research design, study and target population, sample size determination, sampling design and techniques; variables, construction of research instruments, pre-test study with validity and reliability, data collection techniques, logistical and ethical consideration as well as data analysis and management.

3.2 Research Design

The study adopted a descriptive cross-sectional design that used both quantitative and qualitative approaches for data collection. Cross-sectional surveys are used when collecting information about people's opinion, practices and attitudes on certain social issues (Orodho & Kombo, 2002)

3.3 Variables

3.3.1 Dependent Variable

The dependent variable for the study was performance, opportunities and challenges in task shifting by Trained reproductive health Clinical Officers. Dependent variable is the outcome or predictor variable (Tromp & Kombo, 2006).

3.3.2 Independent variables

The independent variables included the social demographics of the participants; motivators, working environment, regulation, and the policy environment that promotes the availability, access, and responsiveness of competent specialized clinical

officers.These are factors that explain the dependent variable (Mugenda &Mugenda, 2003).

3.3.3 Intervening Variables

This included task shifting perfomance model for trained Clinical Officers.

3.3.4 Indicator Variables

The indicator variables for the study included incentives, rewards, recognition, presence of policy for task shifting, supportive supervision, scope of practice, quality quidelines and best practices, legal protection, professional boundaries and licensing. According to Kodhari (2004), an indicator in research is an observed value of a variable or a sign of a presence or absence of the conept being studied. Performance indicators included level of skill performance of prescribed obstetrical and gynecological procedures such as caeserian section and manual vacuum aspiration.

3.4 Location of the study

The study took place in 6 selected counties in Kenya namely Mombasa, Machakos, Nairobi, Muranga, Nakuru, Kakamega, and Kisii. Except for Nairobi which boasts of a National Hospital, the six counties have County Referral hospitals and sub-county hospitals. The total number of Trained Clinical officers as of 2014 is 150 of whom those deployed in the seven counties stood at 45 (COC, 2014). The number of sub-county hospitals per County in the 7 counties are as follows: Mombasa (5), Machakos (5), Nairobi (9), Murang (8), Nakuru (5), Kakamega (8) and Kisii (5) respectively (MOH, 2016). These counties were chosen for study because they have very distinguishable disparities in the number of birth deliveries, maternal deaths and maternal mortality

ratios and have the necessary facilities and capacity for conducting emergency obstetrics and gynecological procedures (UNFPA, 2014). For instance, according to the Kenya Demographic Health Survey (KDHS, 2014), there was disparity in the number of births delivered in the health facility in the three counties being 85% , 69.7% and 47% for Muranga, Nakuru and Kakamega respectively. North Eastern was excluded because no clinical RH was posted the region.

3.5 Target and study population

The study targeted all task shifted trained Clinical Officers deployed or employed to offer surgical emergency in reproductive health in Kenya's Hospitals. The study populationl consisted of the trained Clinical Officers in tasking shifting working in selected County hospitals of study.

3.6 Exclusion and inclusion criteria

3.6.1 Inclusion criteria

All clinical officers trained in reproductive health through task shifting were included in the study.

3.6.2 Exclusion criteria

Those clinical officers who were not trained in reproductive health speciality and those trained in reproductive health but were unwilling to participate were excluded in the study.

3.7 Sampling Techniques and Sample Size

3.7.1 Sampling techniques

Purposive sampling technique was employed to capture the selected hospitals for study and Trained Clinical Officers as respondents. According to Tromp & Kombo (2006), purposive technique is used where the researcher targets a group of people or institutions believed to be reliable for the study. Such a technique may extend to snow-balling or chain sampling to obtain the required sample size of 45 Trained Clinical Officers in reproductive health as respondents. Snowballing is used when the exact whereabout of the population under study is not well known and there is need to find the subjects using the initial subject who has the desired characteristics which have been identified using purposeful sampling technique (Mugenda & Mugenda, 2003).

3.7.2 Population /Sampling

Trained Clinical Officers served as research respondents and were sampled from a population of 150 task shifted trained Clincal Officers in reproductive health.

3.7.3 Sample size determination

Thirty percent (30%) of the total population is usually sampled in case of cross-sectional survey where the population is clustered so long as the level of confidence remains at 95% (Mugenda A, Mugenda G 2003), Nachimias F, Nachimias D, 2004), WHO, (2004) and Wood (2008). Therefore, 30% of 150 Clinical Officers is = 45 as sample size. According to Wood (2008), calculation of sample size based on cluster sampling is used when it is not possible to obtain a sampling frame because the population is either very large or scattered over a large geographical area. The clinical officers are scattered across the counties and hence to difficult obtain a sampling frame.

3.7.4 Construction of research instruments

Structured questionnaires were developed and administered to Reproductive Health Clinical Officers. This questionnaire has been known to be reliable and has survived cross-validation conditions (Lewko, 2007 & Spreitzer, 2003). Focus group discussion (FGD) and key informant interview (KII) were also developed and used to collect data from the hospital management and the theatre teams. The two instruments are very useful because they allow for clarification of points, motivate correspondents, have minimal loss and are helpful in assessing needs and developing interventions (Borg & Gall, 2003;Odhiambo, 2013). Checklist questionnaires were used for cross checking information on number of maternal procedures performed by Clinical Officers, ANC register attendance and coverage, number of deliveries and outcomes from previous and present records.

3.8 Pre Test

Two trained research assistants were allowed by the researcher to pre-test the research tools in Kimilili Sub-County hospital different from the selected hospital study in order to determine their suitability with a view to making adjustments. Three respondents were uesd in the pre-test.

3.8.1 Validity of the research tools

Pre-test of the research instruments for suitability and the use of supervisors was done and was meant to ensure validity of the research instruments. Supervisors are custodians of knowledge and are capable of providing valid and reliable information.

3.8.2 Reliability of the research instruments

Application of snowballing technique in search of the required subjects and the use of triangulation of multiple sources of data was used and was meant to respectively ensure and enhance reliability and accuracy of the data collected for analysis. The level of reliability achieved was basically qualitatively good. Consistency in recording by instruments was established.

3.9 Data Collection Techniques

Data was retrieved from previous ten-year records (2004 – 2014) on antenatal attendance, birth deliveries and theatre records of any obstetrical and gynecological procedures carried out by the reproductive health Clinical officers in the respective facility. The outcomes of procedures and deliveries were recorded which indicated the contribution of the cadre for motivational analysis. This data was triangulated by the findings of the Kenya Demographic and Health Survey of 2003, 2008 and 2014. To determine skill competency in performance, the researcher and the obstetrician observed a clinical officer performing a procedural skill. The outcome of the procedure was recorded for data. The data was recorded as well performed or not.

3.10 Logistical and Ethical Considerations

Protocols in obtaining ethical approval to conduct research was followed via Kenya Methodist University Ethical Research Committee and the National Council for Science , Technology and Innovation of the Ministry of Education for approvalObtaining informed consent, practicing confidentiality and justice prior during and after the research was the norm rather than the exception to the research

participants. The researcher ensured that future findings were shared with the participants and stakeholders through seminars and education offices and forumThe language of interaction with participants was English and Kiswahili. The researcher trained two research assistants to carry out data collection, facilitated transportation and equiped them with appropriate materials to carry out the job.

3.11 Data Analysis and Management

Data generated by the research instruments was collected, cleaned and coded. Quantitative data analyzed using computor excel package . Data from focus group discussion was transcribed and analyzed by content analysis. Descriptive statistics was used to analyze frequencies mean and standard deviation. Chi-square test was used to test for association between variables. Significance differences between various responses was analyzed by analysis of variance (ANOVA) set at 95% confidence interval at 0.05 level of significance. Data was be presented in tables and graphs. Narration was used to present information obtained through key informant interview and focus group discussion.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

The purpose of this study was to assess the trained clinical officers competency performance, the opportunities and challenges faced through the policy of task shifting in the delivery of reproductive health services in Kenya. The aim of this chapter was to present the data, interpretation and discussion of the findings generated based on the objectives of the study. The chapter focused on the predictor variables that explain variations in skill competence, motivation, environment, regulatory mechanisms and policy in which the Clinical Officers operate as a workforce in the delivery of health services to improve maternal health. The predictor variables examined included skills competence, incentives, recognition, acceptance by other health workers, policy environment, professional boundaries, scope of practice and legal protection.The indepedent variables were examined using various variable indicators.

All these were examined in this chapter as explainatory variables that could help determine the performance, opportunities and challenges available for task shifting by trained Clinical Officers as a workforce in health service delivery. A total of 45 trained Clinical Officers sampled from seven Counties in Kenya participated in the study out of an estimated 150 currently serving in the country to date.

4.2 Social Demographics

4.2.1 Distribution of trained Clinical Officers by the Sampled Counties

Table 4.1 below shows the seven Counties that were purposely selected for study in which 45 trained Clinical Officers provided the sample size through snowballing. The majority of participants (53.33%) were drawn from Nairobi possibly due to access in tracing them, service need or preference for job location. The preference for Nairobi is supported by GWHA (2006) which asserts that one of the pull force for health workers to major urban areas include good accomodations, the quality of health - care facilities and the welfare of the workers entire family. These are motivational factors for health workers.

Table 4. 1: Distribution of respondents by geographical location, n=45

Region	County	No. of participants	Percentage (%)
Coast	Mombasa	4	8.89
Eastern	Machakos	5	11.11
Nairobi	Nairobi	15	33.33
Central	Muranga	5	11.11
Rift Valley	Nakuru	7	15.56
Western	Kakamega	5	11.11
Nyanza	Kisii	4	8.89
Total		**45**	**100**

4.2.2 Demographic data of participants by age category

Table 4.2 below shows the social demographics of participants by age category. The mean age of the participants was 37.7 years falling within the 35 – 39 year category with a standard deviation of 3.22, standard error of 0.47 with an age coefficient variation of 8.5. However, the majority of the participants fall within the 30 – 34 age

bracket and the least being in 50 – 54 age category. This indicate that a large pool of participants are middle aged serving in their active phase of life and are far from retirement.To retain such skilled workers, it is important to motivate them through monetary and non monetary incentives, performance appraisal, career development, and task shifting linked to increased skills development (NEPAD, 2004).

Table 4. 2: Participants by age category, n=45

Age category (years)	Frequency	Percentage (%)
25 – 29	2	4.44
30 - 34	15	33.33
35 - 39	10	22.22
40 - 44	12	26.67
45 - 49	5	11.11
50 - 54	1	2.22
Total	**45**	**100**

4.2.3 Participants by level of experience, n=45

Table 4.3 below indicates the level of experience in practice by the participants. Majority of the participants (53.33) have an experience spanning between 4 to 6 years while the most experienced are a mere patry of 8.89% on the job training.

Table 4. 3: Experience of working in years by the participants, n=45

Working experience in years	Frequency	Percentage (%)
1 - 3	3	6.67
4 - 6	24	53.33
7 - 9	14	31.11
10 - 12	4	8.89
Total	**45**	**100**

Homby (2017) defines experience as the knowledge or mostly of an event or subject gained through involvement in or exposure. Task-shifted trained Clinical Officers undergo a one year internship experience which in their training curriculum is considered necessary to bequeeth sufficient skills for effective practice in health service delivery. Since all the respondents have more than one year of service experience, it is imperative to note that the trained Clinical Officers have considerable experience in reproductive health to gain reputation as experts.

4.3 Performance of Trained Clinical Officers in task shifted Procedures

Tasked shifted procedures were in the areas of obstetrics and gynaecology. Major Obstetric procedures included caeserian section, Macdonald stitch, examination under

anasthesia (EUA), repair of burst abdomen and bilateral tubal ligation. In Gynecology,the cadre was meant to perform manual vacuum aspiration (MVA), laparatomy for ruptured ectopic pregnancy (REP), Marsupialization of bartholins abscess (MBA), laparatomy for pelvic abscess and removal of Intra Uterine contraceptive device (IUCD).

4.3.1 Competence in task shifted Obstetrical procedures

Table 4. 4: Evidence of competence performance in obstetrical procedures, n=45

Evidence of competence performance	**Task shifted procedures**					**Total No. Of procedure-es**	**Test of Association**
	Caeserian section	Examination under Anaesthesia	Repair burst abdomen	Bilateral Tubal ligation	Mac stitch		Chi-square =7.134146 Df=4
Yes	43	43	39	38	41	**204**	P-Value=0.05
No	2	2	6	7	4	**21**	
Total	**45**	**45**	**45**	**45**	**45**	**225**	

From the Chi square distribution in table 4.4 above, the calculated chi-square value was 7.134146 with 4 degrees of freedom at a P-value of 0.05. The critical point for 4 degrees

of freedom was 9.488 which is greater than the calculated chi-square value of 7.134146. Since the computed value was less than the critical value of 9.488, the study concluded that the performance of the Clinical Officers in obstetrical procedures in the five task shifted areas were the same. This indicate significant relationships in performance competency among the trained Clinical Officers in task shifting.

4.3.2 Competence in task- shifted gynecological procedures

Table 4. 5: Evidence of competence performance in gynecological procedures.

Evidence of competence performance	**Task shifted procedures**					**Totalprocedures**	**Test of Association**
	MV-aspiration	Ruptured ectopic pregnancy	Marsupi-alization Bartho-Abscess	Lap for pelvic abscess	Rem-oval of IUCD		Chi-square =25.92555 Df=4 P-Value=0.05
Yes	43	32	43	33	43	**194**	
No	2	13	2	12	2	**31**	
Total	**45**	**45**	**45**	**45**	**45**	**225**	

From the Chi square distribution tablen 4.5 above we get a critical point value of 9.488 at p-value = 0.05 and 4 degrees of freedom which is greater than the calculated chi-square value of 25.92555. Since the computed value of statistic is larger than the critical value (9.488) at 5% level of significance, then, this indicate that the performance competence in the five task shifted areas in gynecology were not the same. This also implies that there is disparity in skill performance among the cadre in the area of

gynecology. There is therefore a gap in performance among the cadre between the actual and the optimal.

4.4 Motivational Challenges of Trained Clinical Officers

4.4.1 Further training for new skills and knowledge

From table 4.6 below, the majority of Clinical Officers 21 (46.67%) agree that further training to gain new knowledge and skills provides a motivational challenge in task shifting. Twenty six point sixty seven percent (26.67%) strongly disagreed on this aspect ostensibly, perhaps, they feel the skills already gained are sufficient for their task shifting job.

Table 4. 6: Cadres response on motivation through trainings, n=45

Type of Response	Number of respondnts	Percentage (%)
Strongly disagree	12	26.67
Disagree	3	6.67
Not sure	-	-
Agree	21	46.67
Strongly agree	9	20
Total	**45**	**100**

From table 4.6 above, it is evident that health service provision in a motivated health workforce through training is one of the most significant output of the inputs into the

health system. Over an accumulative 66% of the task shifted trained Clinical Officers respectively agree and strongly agree that further training is a motivational challenge. This is in tandem with the African Medical Research Foundation publication, TMGLMHSSA (2014) which asserts that the driving force by which people achieve their goals is motivation. This creates willingness to exert high levels of effort to achieve organisational goals conditioned by the ability to satisfy some individual needs. Benabou (1996) and Clarke (2004) on their study on training, development and organisation performance concluded that a well-designed training programme can be linked to improvement in service delivery and that return on investment in training is very high.

Indeed, having limited continuing professional opportunity or proper training and being asked to perform tasks beyond the scope of practice can be a major discontent among the health workforce and can create concerns about the quality of health services provided in a particular health facility. It is important for the managers of the health care system to know that there is room within a health worker's career for further development as acritical motivating factor and therefore must allow him to continue to train in order to meet the changing medical neeeds of his community.

4.4.2 Provision of housing at hospital facility.

It is evident from table 4.7 below that a reasonable percentage (40%) agree that provision of housing to the task shifted workforce enhances motivation in health service delivery. Quite a number of respondents hold diferent view: 13.33% strongly disagree, 13.33% disagree while 20% were not sure. These varied views may be interpreted that

some own their own houses while others do not. Some perhaps need to be assisted to own their own houses hence a 20% for 'no sure' response.

Table 4. 7: Responses on housing as a motivational challenge, n=45

Type of response	Number of respondents	Percentage response (%)
Strongly disagree	6	13.33
Disagree	6	13.33
Not sure	9	20
Agree	18	40
Strongly agree	6	13.33
Total		**100**

These findings resonate well with the work of Martin (1967) and Warr et al (1970) which argues that access by the workforce to such services as housing increases the sense of well-being of workers in an organizational system. Table 4.7 shows that an accumulative 53.33% of task-shifted trained Clinical Officers agree (40%) and strongly (13.3%) agree respectively that non financial rewards such as housing is a motivational factor for health service delivery. This in essence is part of the health system strengthening for human resources. WHO (2000), asserts that proper human resource

management in the health sector such as good accomodations incentives forms an important part of a functional health system.

4.4.3 Provision of special Allowance for Specialization

Table 4.8 below indicates responses regarding provision of special allowances for acquisition of new skills as specialists for motivational purposes. From the table, a majority, 53.33% strongly agree that the allowance provides motivation for health service delivery while 20% strongly disagree on this aspect. However, a mere 13.33% agreed and disagreed respectively in equal measures.

Table 4. 8: Responses on special allowance as a motivational challenge

Type of response	Number of respodents	Percentage (%)
Strongly disagree	9	20
Disagree	6	13.33
Not sure	-	-
Agree	6	13.33
Strongly agree	24	53.33
Total	**45**	**100**

The majority of the respondents (66.66%) in table 4.8 above generally agree that provision of special allowances is a motivational challenge in the delivery of health services. According to Governance, Leadership and Management (2012), effective incentive schemes help build a better motivated, more satisfied and better performing workforce and this can be used by the health systems to attract, satisfy, improve the performance of the staff and retain essential and highly sought-after health care professionals. These special financial allowances include interalia housing, clothing, child care, transportation, parking, paid leave, extraneous and health risky allowances.

4.4.4 Increase in ANC attendance at facility

It is evident from table 4.9 below that 26.67% of the respodents respectively agreed and strongly agreed that an increase in the number of mothers attending Ante Natal Clinic is a motivational boost to their task of health service delivery. Three respondents (6.67%) were not sure while 20% disagreed and strongly disagreed respectively on the variable being measured.

Table 4. 9: Responses on ANC attendance, n=45

Type of response	Number of response	Percentage (%)
Strongly disagree	9	20
Disagree	9	20
Not Sure	3	6.67
Agree	12	26.67
Strongly agree	12	26.67
Total	**45**	**100**

From table4.9 above, it is evident that an increase in Antenatal Clinic attendance by mothers is sufficient ground to motivate trained Clinical Officers. A combined responses of agree and strongly agree (53.34%) concured that Increase in ANC attendance motivates the cadre. The role of the trained Clinical Officer in task shifting is to to provide care to pregnant mothers, treat common obsterical problems, prepare her for child birth and identify complications related to the pregnancy. According to Kenya Ministry of Health Obstetrics guidelines,KMOHOG (2012), an increase in MCH/FP attendance by mothers is a sign of clients satisfaction with services offered at the health facility. This denotes that the skilled attendant offering the services inspires confidence, provides clients with needed information about the services, is accessible, safe, ethical, provides comfort, rights for clients to express their opinion and provides

a continum of health services that cater for the right of mothers to enjoy reproductive health services. This, in essence is a motivating factor for any kind of workforce. From the above findings, it can also be deduced that the services provided are timely, simple, beneficial and safe to pregnant mothers. This is in line with health system strengthening through health service delivery.

These results are backed by the Key Informant Interviewee whose general agreement was that there was arise in medical antenatal coverage in those health facilities in which trained Clinical Officers were deployed since inception and eventual posting (2004) of the cadre thus signifying an improvement in maternal health service delivery. This was supported by KDHS (2014) figures and data from the sampled hospitals for study. Trends in the use of antenatal care show that the proportion of women who had antenatal care from a trained medical provider for the most recent birth in the five years before survey (KDHS, 2014) rose slightly from 88% in 2003 to 92% in the current survey. It was also noted that there was a paradigm shift by ANC clients away from use of nurses and midwives towards doctors and Clincal officers trained in reproductive health. However, it was also noted that many nurses had recently been trained in short courses of Emergency Obstetrics and Child Care (EMOC) and therefore, it was difficulty to attribute improvement in maternal health services delivery only to trained Clinical Officers in reproductive health.

4.4.5 Reduced maternal Mortality Rate (MMR) at the health facility, n=45

Table 4.10 below shows that a very significant number of respondents, 30 (66.67%) strongly agreed that a reduction in maternal mortality rate at the health facility provides a motivational impetus for service delivery as opposed to 6.67% who strongly disagreed

on the same. Cumulatively, those who agreed and strongly agreed formed about 87% of the respondents. A mere 6.67% were not sure whether such a variable is an indicator of motivation for service delivery.

Table 4. 10: Responses on reduced maternal mortality rate, n=45

Type of response	Number of respondents	Percentage (%)
Strongly disagree	3	6.67
Disagree	-	-
Not sure	3	6.67
Agree	9	20
Strongly agree	30	66.67
Total	**45**	**100**

Over sixty six percent (66.67%) and 20% of the respondents strongly agreed and agreed respectively that a reduction in maternal mortality rate is a motivational challenge for trained Clinical Officers in task shifting. FNP (2014) asserts that the health of women during pregnancy, child birth and the post natal period is critical to their lives and that reduction of maternal mortality rate (MMR) is asign of improved prenatal care, use of skilled birth attendance who have the skills to manage normal deliveries and recognize the onset of complications, good knowledge of obstetric care, follow up visits by health workers postnatally. The purpose of trained Clinical Officers in task shifting was essentially to improve maternal health through reduction of maternal mortality

rates, which was the 5th component of the Millenium Development GoalS (2000) and now the sustainable Millenium Development Goals (2015). For a cadre to realize these goal, is itself, very motivating.

4.4.6 Increase in the number of deliveries

From table 4.11 below, it is evident that many respodents (46.67%) strongly agreed that an increase in the number of deliveries at health facility is a motivational morale for task shifting. An acumulative percentage of those who only agreed (33.33%) and strongly agreed (46.67%) formed 80% of the repondents. This is a clear indicator of an increase in service utilization due to access to available skilled human resource. This in itself agrees with the 5th goal of the millenium Development Goals.

Table 4. 11: Responses on number of deliveries, n=45

Type of response	Number of respondents	Percentage (%)
Strongly disagree	3	6.67
Disagree	-	-
Not sure	6	13.33
Agree	15	33.33
Strongly agree	21	46.67
Total	**45**	**100**

In addition, an increase in the number of deliveries at afacility indicates that there is promotion of safe delivery of a healthy baby with minimal stress and injury to the mother and baby. This, as evidenced from the majority of respondents (80%) who agreed and strongly agreed is an indicator of motivation to the workforce and as a good sign of recognition by the facility utilizers.

4.4.7 Good delivery outcomes

Table 4.12 below gives various responses on whether good delivery outcomes among mothers during labour and delivery provides motivation for task shifting. Good delivery outcomes refers to a normally health delivered baby and health mother. Sixty (60%) of respondents strongly agreed, 12% agreed and acumulative of 13.34% strongly disagreed and disagreed respectively. The majority (87%) cumulatively agree that the variable is a motivational factor.

Table 4. 12: Responses on good delivery outcomes, n=45

Type of response	No. of responses	Percentage (%)
Strongly disagree	3	6.67
Disagree	3	6.67
Not sure	-	-
Agree	12	26.67
Strongly agree	27	60
Total	**45**	**100**

Good delivery outcomes denotes provision of qualitative health services and sign of competent workers

4.4.8 Good outcomes post caeserian section or surgery

From table 4.13 below, it evident that 53.33% and 40% agreed and strongly agreed respectively that good post caeserian or surgey outcomes motivated the trained Clinical Officers in their new role of task shifting. This cumulatively meant that 93.33% are in agreement with the variable being tested.

Table 4. 13: Responses on post caeserian or surgical delivery outcomes, n=45

Type of response	No. of responses	Percentage (%)
Strongly disagree	3	6.67
Disagree	-	-
Not sure	-	-
Agree	24	53.33
Strongly agree	18	40
Total	**45**	**100**

Good outcomes from surgical procedures such as delivering ababy through caeserian section by task shifted trained Clinical Officers indicates reasonable level of competence and mastery in the specific skill performance. Better health outcomes from

surgery points to a work done by an effective officer who can be trusted as safe by pregnant mothers. This, according to 93.33% of the respondents, good outcomes post caeserian section is a motivational factor.

4.4.9 Adequate Remuneration

Table 4.14 shows that a cumulative total of 73.34% of the respondents disagreed and strongly disagreed respectively that adequate remuneration provided motivation for service delivery in task shifting for trained Clinical Officers. Indeed, 13.33% agreed and 13.33% strongly agreed respectively that the variable being tested is a motivational indicator.

Table 4. 14: Responses on adequate remuneration, n=45

Type of response	No. of respodents	Percentage (%)
Strongly disagree	6	13.33
Disagree	6	13.33
Not sure	-	-
Agree	12	26.67
Strongly agree	21	46.67
Total	**45**	**100**

From the foregoing results in table 4.14, it is important to note that, whereas most workers identify salary and other remuneration as an important pull or push factor, it is not the only factor in work motivation and retention.

4.5 Working Environment as a Challenge to Task Shifting

4.5.1 Adequacy of job equipments

Table 4.15 below shows that amajority, 30 (66.67%), disagree that adequacy of job equipments provides a challenge for task shifting. Those who strongly disagreed were 6 (13.33%) while 6 (13.33%) strongly agreed that the variable constitute a challenge.

Table 4. 15: Responses on adequacy of job equipments, n=45

Type of response	No. of respondents	Percentage (%).
Strongly disagree	6	13.33
Disagree	30	66.67
Not sure	-	-
Agree	3	6.67
Strongly disagree	6	13.33
Total	**45**	**100**

It is evident from table 4.15 that trained Clinical Officers, as at present, do not regard or identify adequacy of job equipments as a motivational issue in task shifting. However, Willis (2014), in his study 'motivation and retention of health workers in

Developing Countries' argue that a dearth of adequate resources and supplies prohibits workers from doing their jobs, causing frustration and eventual demotivation and attrition.

4.5.2 Cooperation from Doctors

It is evident from table 4.16 below that 21 (46.67 %) disagree while 26.67% strongly agree that cooperation from doctors is a challenge to task shifting by trained Clinical Officers. However, 13.33% of the respondents agreed while a similar percentage was not sure about the variable being measured.

Table 4. 16: Responses on cooperation from doctors, n=45

Type of response	No. of responents	Percentage (%)
Strongly disagree	12	26.67
Disagree	21	46.67
Not sure	6	13.33
Agree	6	13.33
Strongly agree	-	-
Total	**45**	**100**

According to WHO (1986), a healthy work environment is one in which there is not only absence of harmful conditions but an abudance of health promoting condition. Over 73.34% of the task shifted Clinical Officers disagreed that there was any

cooperation with doctors. It must be noted that the kind of verbal and body language used at workplace allows humans to cooperate on avery large scale (TMGLMHSSA, 2014). Fairness affects human cooperation. Perhaps doctors view Clinical Officers as competitors intruding into their realm of practice and are therefore not fully willing to provide supportive supervision and other forms of cooperation to enable facilitate team work in the health facility.

In the Key Informant discussion (KII) on cooperation, the experts argued that though there is task shifting by trained CO's, the doctors were finding it difficulty to fully cooperate, teach the CO's the task shifted skills and allow them to take over their tasks and practise. They argued that the Act governing the licensing, training and practice of Clinical Officers does not allow them to perform certain obstetrical and gynecological procedures. Therefore, they can not provide an environment for such practices that are not grounded in law and therefore subject to medical legal challenges. However, the researcher countered: Are you aware that the ministry of health through the director of medical services has recognized the task-shifted skills CO's have acquired through training and that he has allowed them under the skill transfer policy to perform caeserian section and other procedures? The discussants were of the opinon that, even if the director of medical services has such discretionaly powers, the CO's practice must be grounded in law; their curriculum must clearly delineate their roles, functions and responsibilties. It was therefore noted that though task shifting seems to be working for trained Clinical Officers, there was a challengeful disquiet level of both a hostile working, regulatory and policy environment. This is a setback to health system strengthening in health service delivery.

4.5.3 Cooperation from nurses

Table 4.17 below indicates that 21 (46.67%) of the respondents agreed that nurses provided cooperation at the hospital facility. Twenty percent(20%) strongly diasgreed, 26.67% disagreed while 6.67% were not sure of the cooperation.

Table 4. 17: Responses on nurses' cooperation

Type of response	No. of respondents	Percentage (%)
Strongly disagree	9	20
Disagree	12	26.67
Not sure	3	6.67
Agree	21	46.67
Strongly disagree	-	-
Total	**45**	**100**

In the Key Informant Interview, regarding nurses cooperation, nurses argued that Clinical Officers had poor integration capacity in working realations in the department of reproductive health as indicated in the following quote: ''Before the training of CO's in reproductive health, 28% of maternal health services were provided by doctors while the remaining 64% by nurses and midwives. Many professionals were not aware of that even a general Clinical Officer is trained to provide reproductive health services. This was because this cadre appeared to have a non-involvement in providing these services and this led to loss of confidence and knowledge in the subject area. The new trained CO's seem to exhibit similar behavioral pattern and this gives doctors and nurses room to sideline them in decision making and practices. To avoid this past mistakes and perceptions, the newly trained Clinical Officer, must on being posted, inspire

confidence, be assertive and aggressive in order to get fully integrated and accepted into the reproductive health discipline.''

4.5.4 Cooperation from hospital administration

From table 4.18 below, majority 15 (33.33%) of the respondents agreed that the administration gave them the cooperation in discharging their duties. Those who strongly disagreed and disagreed stood at 26.67% and 26.67% respectively while 6.67% were not sure if cooperation was being accorded to them by the admnistration. Therefore a majority (53.34%), generally disagreed that there was any cooperation from the hospital administration.

Table 4. 18: Responses on cooperation from hospital administrators, n=45

Type of response	No. of repondents	Percentage (%)
Strongly disagree	12	26.67
Disagree	12	26.67
Not sure	6	13.33
Agree	15	33.33
Strongly agree	-	-
Total	**45**	**100**

The results therefore indicate that there was no reasonable relationship with the administrative management. According to Franco M (2002), lack of appreciation by

managers and colleages in activities such as performance provides difficult working conditions for health workers.

In Focus Group Discussion (FGD), was noted that major challenge from administrators was how to handle trained CO's workforce in reproductive health. The cadre were supposed to handle surgical procedures which were not factored in their practice by law. However, a letter from the director of medical services confirming that the cadre could perform caeserian section and other procedures under the skill transfer policy restored their confidence in the CO's. It was also noted that there was an improvement in health service delivery at antenatal and family planning clinics, both ante natal and gynecological wards and theatre services. This lent credence to the work of trained Clinical Officers thus clinical officers being rated on average at 4 on a likert scale of five in all the seven counties.

Strengthening the trained Clinical Officer's motivation stood as a challenge as it was noted that there was improvement in maternal health services. The FGD asserted that there was efforts to ensure adequate compensations, promotion of positive work environment including supportive supervision. However, more challenges were tackled by the FGD. Ensuring the cadre to feel safe at their jobs so that it can serve as a motivation and increase productivity was dealth with by the hospital administrator. FGD suggested that holding frequent meetings with doctors, trained CO's could increase level of understanding and cooperation thus creating team work in delivery of reproductive health services in the hospitals.

Table 4. 19: Responses on the presence of environmental security for the job, n=45

Type of response	No. of respondents	Percentage (%)
Strongly disagree	6	13.33
Disagree	21	46.67
Not sure	9	20
Agree	6	13.33
Strongly agree	3	6.67
Total	**45**	**100**

Ensuring health workers feel safe at their job is also imprtant to motivation, productivity and their decision to remain at work (Deusson et al (2012). Seventy percent (70%) of the respondents disagreed and strongly disagreed that the administration provided security for their jos as task shifted officers. GLM (2014) identified personal security (insurance, pension), professional identity, sustainable employment(security of tenure), effective employee representation, communication, recognition of work and achievement and supportive management and peer structures as enablers of positive job and work environment. Managers, therefore have a duty and responsibility to create enabling job environment that foster cooperation and team worker.

4.6 Opportunities for Clinical Officers Trained in Reproductive Health

4.6.1 Sufficient coverage for practise by Act of Parliament

Table 4.20 below indicate that an accumulative of 38(86.47%) of respondents disagrreed that the act caters enough for their required skills they possess to practise. However, 13.33% agreed that the skills possessed by Clinical Officers are provided for the act of parliament.

Table 4. 20: Responses on sufficient coverage by Act of parliament for practise, n=45

Type of response	No. of responses	Percentage %
Strongly disagree	21	46.67
Disagree	18	40
Not sure	-	-
Agree	6	13.33
Strongly agree	-	-
Total	**45**	**100**

Over 86. 47% of respondents generally disagreed that there is sufficient coverage for practice by an act of parliament. According to the Clinical Officers (Registration, Training and Licensing) Act (1988) and the Amendment Bill (2016), a Clinical officer

is only permitted in private practise to engage in the practice of reproductive health in the following areas: antenatal care, urinary tract infections, anaemia in pregnancy, breast abscess, puerperal sepsis, pelvic inflammatory diseases and family planning. The act does not take into account the skills gained by task shifted trained Clinical Officers.

Task shifted shifted Clinical Officers are trained to offer surgical procedures such as caeserian section, macdonald stitch, manual vacuum aspiration, repair of bust abdomen, laparatomy for unruptured ectopic pregnancy and bilateral tubal ligation among other procedures. These skills are not covered in the their licensing Act. However, under the transfer of skill policy, the director of medical services (2008) allowed the cadre to perform the newly acquired task shifted skills. This offers the cadre an opportunity to be assigned new roles and responsibilities in their practice thus strengthening the health system.

4.6.2 Registration by the licensing Council as a Specialist

Table 4.21 shows that that 73.33% of the respondents have an opportunity to be registered as specialist by their licensing body as a result of being trained under policy of task shifting.

Table 4. 21: Number of respondents on registration as specialists, n=45

Type of response	No. of responses	Percentage (%)
Strongly disagree	9	20
Disagree	3	6.67
Not Sure	-	-
Agree	15	33.33
Strongly agree	18	40
Total	**45**	**100**

4.6.3 Amendment of Act to cater for new skills and knowledge

Table 4.22 shows that all the respondents, 45(100%) strongly agreed that acceptable amendments to the Act governing Clinical Officers practice to cater for new skills and knowledge be provided.

Table 4. 22: Amending the Act to cater for new skills and knowledge, n=45

Type of response	Number of responses	Percentage
Disagree	-	-
Not sure	-	-
Agree	-	-
Strongly agree	45	100
Total	**45**	**100**

From the results of table 4.22, it is instructive to note that task shifting provided trained Clinical Officers with new skills and fresh knowledge to undertake new roles and responsibilties. All the respondents strongly agreed that an act of parliament be ammended to cater for the new skills. This is supported by reference letter, No.ST/GEN/9/3/1 of 17th November 2008 in which the Director of Medical Services recognized and allowed theClinical Officers trained in reproductive health to perform interalia procedures such as caeserian section, bilateral tubal ligation, dilatation and curetage, manual vacuum aspiration and Macdonald stitch under the transfer of skill policy. The letter acknowledged that the ministry of health had recognized the skills and competencies of Clinical Officers trained in reproductive health. It is therefore imperative to note that such is an opportunity provided through task shifting and will go along way to address the MDGs (2000) and SMDGs (2015).

4.6.4 Requiring more time for training as a reproductive health specialist

From table 4.21 below, it is clear that both of 33.33% disagreed and agreed respectively on extended time of training. Twenty percent (20%) of the respondents strongly disagreed on extension time for training in reproductive health.

Table 4. 23: Response on more training time in reproductive health, n=45

Type of response	No. of respondents	Percentage (%)
Strongly disagree	9	20
Disagree	15	33.33
Not Sure	-	-
Agree	15	33.33
Strongly agree	6	13.33
Total	**45**	**100**

From the table 4.23 above, 46.66% agreed and 53.33% disagreed that the trained Clinical Officers require more training and training time in reproductive health. While training is meant to refresh and bring in new skills through initial identification of competency gaps, it is not clear why 46.66% of the respondents disagreed with the need. However, according to ..... (2014), more training time increases competency, effectiveness and efficiency in the management health delivery of services. It is

therefore an opportunity for acquisition of more skills and knowledge for individual benefit in private practice and for the public good.

4.6.5 Satisfaction with Internship supervision

Table 4.24 indicates that an acumulative percentage of 53.33% strongly disagreed and disagreed respectively that they were satisfied with supervision with the intershinship. Fifteen percent (15%) agreed that internship supervision was satisfactory.

Table 4. 24: Responses on satisfaction with internship supervision, n=45

Type of response	No. of respondents	Percentage(%)
Strongly disagree	9	20
Disagree	15	33.33
Not sure	-	-
Agree	15	33.33
Strongly agree	6	13.33
Total	**45**	**100**

The majority (53.33%) disagreed on satisfaction with internship supervision. Supportive supervision as is known to create environment that allows staff to develop professionally and enhance performance regardless of the current level of peformance or professional expertise, is meant to be satisfactory to the intern. Perhaps the 46.66%

who were satisfied with internship had sufficient resources, good relationships with their seniors, had sufficient training to allow them do their jobs effectively, adequate support, had adequate feedback on their daily performance and met their specific goals and expectations at their internship health facility.

4.6.6 Policy on free Maternal care will improve maternal Health services

Table 4.25 below indicates that the majority of respondents , 24 (53.33%) agreed that the present policy on free maternal health care in public hospitals will improve provision of maternal health services. A further, 18 (40%) strongly agreed that free services for maternal health will too improve maternal health. Cumulatively, 93.33% of respondents agreed and strongly agreed respectively that the policy will enhance provision of maternal services.

Table 4. 25: Responses on effect of policy on free maternal services in hospitals, n=45

Type of response	No. of responses	Percentage (%)
Strongly disagree	-	-
Disagree	-	-
Not sure	3	6.67
Agree	24	53.33
Strongly agree	18	40
Total	**45**	**100**

It is clear from table 4.23 that the majority of respondents agreed that policy on free matenal care will improve maternal health services. Perhaps , these responses are

informed by the goals and aims for their training- to improve maternal health. This is supported by the findings of KDHS(2014) that the introduction of free maternal health services at hospitals increased utilization and access to those services.

4.6.7 Satisfaction with policy on Training in Reproductive Health

According to table 4.26, the majority of respondents, 27 (60%) agreed that the policy on training in reproductive health was satisfactory while 6.67% and 26.67% strongly disagreed and disagreed respectively. A mere 6.67% of the participants were not sure whether the policy was satisfactory or not.

Table 4. 26: Responses on satisfaction with policy on reproductive health training, n=45

Type of response	No. of respondents	Percentage (%)
Strongly disagree	3	6.67
Disagree	12	26.67
Not sure	3	6.67
Agree	27	60
Strongly agree	-	-
Total	**45**	**100**

The Kenya National Reproductive Health Policy (NRHP, 2007) states that reproductive health services shall be offered by doctors, Clinical Officers, Nurses and Community

Health Workers. From table 4.26, Clinical Officers (60%) are satisfied with this policy. The goal of this policy is to enhance reproductive health status for all Kenyans by increasing equitable access to reproductive health services and by improving quality, efficiency and effectiveness of services provided at all levels of health facilities. It aims to improve responsiveness to client needs.

4.6.8 Satisfaction with the policy on the scope of Reproductive health practice

From table 4.25 below, it is clear that an acumulative resopnse of 40% strongly disagreed and disagreed respectively that there was any satisfaction in the scope of practice. Three (6.67%) of the respondents were not sure about the satisfaction aspect but 33.33% of the responses agreed with the scope of practice while 20% strongly disagreed with the variable being measured.

Table 4. 27: Response on satisfaction on scope of practice in reproductive health, n=45

Type of response	No. of respondents	Percentage
Strongly disagree	9	20
Disagree	9	20
Not sure	3	6.67
Agree	15	33.33
Strongly agree	9	20
Total	**45**	**100**

Table 4.25 shows that an aggregate of 33.33% who responded agree and strongly agree were saitsfied with the scope of practice in reproductive health.The latest amendments to the Clinical Officers (Training, Registration and Lisensing) Act, 2016, indicates that a Clinical Officer can only offer the following services in obstetrics and gynecology: Antenatal care, treatment of urinary tract infections, anaemia during pregnancy, breast abscess, puerperal sepsis, pelvic inflammatory diseases and family planning services. However, despite this limited scope in practice, the Director of Medical Officers (2008) recognized the wide range of skills Clinical officers possess and allowed the cadre under the transfer of skill policy to perform caeserian section, macdonald stitch, bilateral tubal ligation and any other reproductive health duties assigned to them by the obstetrician or gynecologist. This act of the director of medical services, if translated into an act of parliament can increase their scope of practice and hence satisfaction in task shifting.

4.7 Analysis of variables on responses to motivation

Table 4. 28: ANOVA for significant differences on responses on motivational challenges

	Strongly disagree	**Disagree**	**Not sure**	**Agree**	**Strongly agree**	**ANOVA Findings**
	X_1	**X_2**	**X_3**	**X_4**	**X_5**	
45	12	3	0	21	9	df between responses=5-1=4
45	6	6	9	18	6	df error=39-4 =35
45	9	6	0	6	24	
45	9	9	3	12	12	∑of squares=1606.5
45	3	0	3	9	30	its mean =401.6
45	3	0	6	15	21	
45	3	3	0	12	27	total ∑square =146.875
45	3	0	0	24	18	its mean =4.196
Total	**48**	**27**	**21**	**117**	**147**	
Mean X	**6**	**3.4**	**2.6**	**14.6**	**18.4**	computed ' F ratio=401.6/4.196=95.7
$\sum X$	**360**					
$\sum X^2$	**5875**					'F value for 4df and 35 df =2.45 (critical Value).
$\sum X^2 - \frac{\sum X^2}{N}$	**1459.625**					
$\frac{(\sum x_1)+(x_2)+..}{8}$	**1606.5**					
Total$\sum x^2-\sum x^2$	**1459.225**					

Since, the computed F-ratio of 97.7 is greater than the critical table value of 2.45 at 5% level of significance, this indicates that the five responses on the 5- likert scale on

motivational challenges by trained Clinical Officers differed significantly. This means the five responses testing various variables are not the same.

CHAPTER FIVE

SUMMARY, CONCLUSION, RECOMMENDATIONS

5.1 Introduction

This chapter presented a summary of the discussions relevant to the purpose of this study. The chapter is structured into three sections: summary of discussions, conclusions and recommendations of the study. The first section summarizes the meaning of task shifting and why WHO found it necessary to introduce the model as for solving the global human health workforce crisis. The section explains how Kenya adopted the concept in reproductive health service delivery using clinical officers, who, in this study are subject of performance appraisal. The second and third section respectively concludes and offers recommendations on the study.

5.2 Summary

This study on task shifting on the performance of reproductive health service delivery by trained Clinical Officers in Kenya: opportunities and challenges, was grounded on the fact that task shifting is a a reality and that the task shifted cadre's practice is frought with challenges.

Task shifting is the rational redistribution of tasks among workforce teams where specific tasks are moved, where appropriate, from highly qualified health workers to health workers with shorter training and fewer qualifications in order to make more efficient use of the available human resources for health. This allows awider range of cadres to offer certain services, when this can be done safely and effectively as a means of rapidly expandinding access and improving health. In 2004, WHO recommended the

use of task shifting as a means of solving the health workforce crisis world wide especially in Sub-Saharan Africa. The world health body (WHO) approved its implementation in 2008. The WHO (2008) goal of task shifting was to ‘’get the right workers with the right skills in the right places doing the right things’’ without necessarily abandoning other methods of increasing the number of qualified health workers. In reproductive health, task shifting was meant accelerate progress towards achieving set millennium goals (MDG’S, 2000), 4,5 and 6 through reduction of maternal mortality ratio and to help scale up of access to effective and evidence-based essential services in the country.

In Kenya, trained Clinical Officers in reproductive health were task shifted in 2004 to provide emergency obstetric and gynaecological services as a stop- gap measure to fill gaps in health service delivery due to shortage of qualified doctors. The new task shifted skills such as performing emergency caeserian section were not covered by their Training, Licensing and Registration Act (1988, 2016). However, in 2008, the Director of Medical services recognized these skills and under the transfer skill policy, allowed the task shifted cadre to perform procedures such as caeserian section, bilateral tubal ligation, macdonald stitch, conducting ward rounds and any other Reproductive Health duties assigned to them by the Obstetricain or gynaecologist. This brought various challenges and opportunities to their task shifted roles and responsibilities.

This study identified various performance competency, challenges and opportunities which interalia included motivation, policy and working environment. A major setback for the cadre was hostile working environment where there was minimal level of cooperation from nurses and doctors coupled with inadequacy of appropriate health

facility equipments for their job. Doctors and nurses hostility was seen as trained Clinical officer being competitors taking over their work domain for which they are not licensed to provide. It must be noted that task shifting are temporary measures and are not designed to take away tasks from any professional group, but rather make the best use of the cadres of staff currently employed and deployed to our health facilities. This therefore calls for Kenya to domesticate WHO policy on task shifting in order to prevent misunderstandings among health professional.

Health workforce needs-based shortages and skill mix imbalances are significant health workforce challenges. In this case task shifting becomes an important policy option to help alleviate workforce shortages and skill mix imbalances. The trained Clinical Officer now has an opportunity to compentently practise new skills which he has acquired, increase his scope of practice and even have it anchored into law. This is supported by the case of mozambique where Assistant Medical Officers trained in surgery are key providers in district hospitals and produce similar patient outcomes as physician obstetrician and gynecologists. Similarly, the results of this study indicate that 100% of CO's wanted an amendment to their statutory act to provide for such opportuities as in the case of Mozambique.

Motivation is closely linked to job satisfaction. Unmotivated health workers are known to leave their jobs in pursuit of more appealing job opportunities. The study found out that trained Clinical Officers were generally satisfied with the scopes of training (60%) and practice (53.33%).

Amajor challenge therefore to delivering quality health services in Kenya is the growing shortage of trained health workers in a country already burdened with insufficient infrastructure, poor government health-care systems, and extreme poverty. In order to cope up with these human resource challenges, it is essential to address both institutional and individual factors such as improved workforce management systems that pursue equitable distribtion of health workers, staff inclusion in staffing related decision making, clear job descriptions, improved communication between management and staff, supportive supervision, mentoring and coaching. Key response to all these challenges are such that a compressive approach is needed to address institutional , facility, and individual factors in a holistic manner taking into consideration the needs and dynamics of entire health-care system such as task shifting.

There are several opportunities available to clinical officers trained in reproductive healt. These opportunities includes a possibility for enacting a law to cater for the new skills acquired for practice. This study has shown that clinical officers trained in reproductive health have the skill competency to perform certain prescribed emergency obstetrical and gynecological procedures which were a preserve of medical doctors.

5.3 Conclusions

The goal of task shifting was to strengthen the health workforce by getting the right workers with the right skills in the right places without necessarily abandoning other methods of increasing the number of qualified health workers. The aim was to mitigate against shortages of the health workforce in service delivery. The objectives of this study on task shifting in reproductive health were to determine the motivational level of the trained Clinical Officers, the available regulatory mechanisms in service delivery,

policy on their operation and the status of their working environment. Based on the findings of the objectives the research concluded as follows:

1. The clinical officers have the necessary skill competency gained through task shifting to effectively perform the prescribed emergency obstetrical and gynecological procedures.
2. There was increased maternal utilization of Antenatal, intranatal and post natal services and attendance at health facilities as a result of introduction of task shifting model.
3. Task shifting in reproductive health for Clinical Officers provided high reasonable levels of motivation for the cadre.
4. There is a wide range of opportunities for Clinical Officers in task shifting that includes recognition for new skills and enactment of new legislation to cater for practice of the new skills.
5. The working environment for the cadre was hostile due to misunderstanding of their new roles, functions and responsibilities.

5.4 Recommendations

The recommendations of this study may be used to influence policy making and behavioral change, training of Clinical Officers, management of health institutions on task shifting and other forms of timely interventions. The recommendations are based on the findings of the study and the interpretation of the results and are as follows:

1. Task shifting in reproductive health by trained clinical officers must be anchored in the Ministry of Health National Policy Framework that will address

motivation of the cadre, work environment and cooperation with other health workers in their new roles. This is to help spell their clear roles, functions and responsibilities to avoid inter cadre unhealthy competition and suspicion. To avoid competition, conflicts and misinterpretations of each other's role in task shifting among cadres, the national government needs to develop a clear cut policy frame work on task shifting in reproductive health and other areas.

2. There is a need for health managers to mobilize, conduct sensitization programs and advocacy on task shifting among its health worker force to help integrate the Clinical Officers into their new roles and responsibilities.
3. An act of parliament need to be enacted to provide and cater for the new skills acquired by trained Clinical Officers in providing emergency surgical obstetrical and gynecological procedures in order to motivate the cadre.

5.5 Suggestions for further Studies

Further research needs to be carried out in the following areas of reproductive health and on Clinical Officers as a a cadre:

1. Comparative study on outcomes of caesarian section carried out by task shifted Clinical Officers in reproductive health versus the medical officers.
2. The impact of trained Clinical Officers in providing reproductive health services since their inception and deployment in 2004.

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APPENDICES

Appendix A: Informed Consent Form

Kenya Methodist University

P. 0 Box 264 - 60200

MERU, Kenya

SUBJECT: INFORMED CONSENT

Dear Respondent,

My names are Kishasha Meshack Kijungu. I am a Masters student from Kenya Methodist University. I am conducting a study titled '' Assessing the performance of Reproductive Health Clinical Officers in providing emergency obstetrical and gynecological procedures at District Hospitals in Kenya''. The information obtained will be used by the ministry of health to formulate policies on the training of clinical officers and help improve and encourage best practices in health service delivery regarding performance of emergency procedures in reproductive health.

Procedure to be followed

Participation in this study will require that I ask you some questions and also access the hospital surgical operation records to countercheck your previous records of participation and performance in emergency procedures. I will record the information from you in a questionnaire check list.

You have the right to refuse participation in this study. You will not be penalized nor victimized for not joining the study and your decision will not be used against you nor affect you at your place of employment.

Please remember that participation in the study is voluntary. You may ask questions related to the study at any time. You may refuse to respond to any questions and you may stop an interview at any time. You may also stop being in the study at any time without any consequences to the services you are rendering.

Discomforts and risks.

Some of the questions you will be asked are on intimate subject and may be embarrassing or make you uncomfortable. I f this happens; you may refuse to answer if you choose. You may also stop the interview at any time. The interview may take about 40 minutes to complete.

Benefits

If you participate in this study you will help us to learn the progress of reproductive health clinical officers in performing or providing emergency procedures in Kenya which is important in improving the health of women and the risk dying from preventable obstetrics and gynecological emergencies. You will benefit from this assessment because it will help us define the best practices for you in future.

Rewards

If you agree to participate in this study, lunch will be provided to you and transport expenses will be reimbursed where necessary.

Confidentiality

The interviews will be conducted in a private setting within the hospital. You name will not be recorded on the questionnaire and the questionnaires will be kept in a safe place at the University.

Contact Information

If you have any questions you may contact the following supervisors: 1. Mr. Musa Oluoch and 2. Susan Njuguna of the Department of Health Systems Mnagement of Kenya Methodist University or Kenya Methodist University research review committee of Box 267 – 60200 Meru, Kenya.

Participant's Statement

The above statement regarding my participation in the study is clear to me. I have been given a chance to ask questions and my questions have been answered to my satisfaction. My participation in this study is entirely voluntary. I understand that my records will be kept private and that I can leave the study at any time. I understand that I will not be victimized at my place of work whether I decide to leave the study or not and my decision will not affect the way I am treated at my work place.

Name of Participant…….

Date……..

Signature…….

Investigator's Statement

I, the undersigned, have explained to the volunteer in a language s/ he understands, the procedures to be followed in the study and the risks and the benefits involved.

Name of Interviewer……Date…….

Interviewer Signature……

Appendix B: Questionnaire For Reproductive Health Clinical Officers On Actual And Optimal Performance(S)

Introduction

The purpose of this questionnaire for RHCO is to determine their level of performance as new specialists trained in new skills in the realm of obstetrics and Gynecology. The questionnaire assesses their actual and optimal performances

SERIAL N0. .....DATE.....

Instructions

1. Tick the right response in the provided spaces OR
2. Write in the provided spaces where appropriate.

A. SOCIO – DEMOGRAPHIC CHARACTERISTICS

1. Name of County .....No. (Code) ☐☐

2. Name of District County Hospital..... (Code)

3. What is your gender? Male ( ) Female ( )

4. In which age bracket do you belong?

- 26-30 years ( )
- 31-35 years ( )
- 36-40 years ( )
- 41-45 years ( )
- 46-50 years ( )
- More than 51 years ( )

1. For how long have worked as a as RHCO
   - 1 – 2 years ( )
   - 3 – 4 years ( )
   - 5 – 6 years ( )
   - 7 – 8 years ( )
   - More than 9 years ( )

B. LEVEL OF PERFORMANCE

6. Are you aware of the procedures the training and the law allows you to carry out as a reproductive health clinical officer?Yes ( ) No ( )

7. If your response to 6 (above) "YES", how manyhave you ever performed since you were deployed as RHCO

8. List the various procedures you have performed so far stating the total number per procedure. (Researcher to use checklist for ticking and counter checking the information against records)

From the following list of the various procedures to be performed, indicate by ticking the approximate number you have performed

Procedures	Performed		Number performed	Outcomes of procedure
	Yes	No		
(a) GYNECOLOGICAL				
1. Manual vacuum aspiration				
2. Laparatomy for ruptured ectopic pregnancy				
3. Repair of burst abdomen				
4. Marsupialization of bartholins abscess				
5. IUCD removal by dilatation and curettage				
6. Laparatomy for pelvic abscess				
7. Laparatomy for unruptured ectopic pregnancy				
8. Prostaglandins administration				
9. Cathetar insertion				
10. Emergency abdominal paracentesis				
(b) OBSTETRICAL				
1. Manualremovalofplacenta				

2. Repairofcervicaltear				
3. Vacuumextraction–babydelivery				
4. Caesariansection				
5. Episiotomyperinealcervicaltearrepair				
6. Repairofburstabdomen				
7. Macdonaldstitch(insertion/removal)				
8. Repairofuterinerupture				
9. BilateralTubalLigation				
10. ExaminationunderanesthesiaforAPH				

APPENDIX C: GAP IDENTIFICATION IN PROCEDURE/CHALLENGE IN PERFORMANCE

In the table below containing the list of procedures you are expected to perform at health facility, indicate by ticking against those procedures you face challenges in performing and stating or specifying or explaing the challenge in the spaces provided.

Procedures	**Challenges**		**State/specify/explain the challenge**
	Yes	**No**	
(b) GYNECOLOGICAL			
11. Manual vacuum aspiration			
12. Laparatomy for ruptured ectopic pregnancy			
13. Repair of burst abdomen			
14. Marsupialization of bartholins abscess			
15. IUCD removal by dilatation and curettage			
16. Laparatomy for pelvic abscess			
17. Laparatomy for unruptured ectopic pregnancy			
18. Prostaglandins administration			
19. Cathetar insertion			
20. Emergency abdominal paracentesis			
(b) OBSTETRICAL			
11. Manual removal of placenta			
12. Repair of cervical tear			

13. Vacuum extraction – baby delivery			
14. Caesarian section			
15. Episiotomy/perineal/cervical tear repair			
16. Repair of burst abdomen			
17. Macdonald stitch (insertion/removal)			
18. Repair of uterine rupture			
19. Bilateral Tubal Ligation			
20. Examination under anesthesia for APH			

APPENDIX D: OBSERVATION CHECKLIST FOR OF ANC SERVICES PROVIDED BY TRAINED RHCO (5-year period trend records)

A. REQUIRED PARTICULARS

County Name ……

Date…….....

FacilityName…….....

Reproductive Health Clinical Officer.....

B. TRENDS IN ANTENATAL CARE AND DELIVERY (10 YEAR RECORDS)

(a) Proportion of mothers reporting to ANC 2003/2004 ☐

2008/2009 ☐

2014/2015 ☐

(b) Proportion of mothers attended to by skilled attendance	2003/2004	☐
	2008/2009	☐
	2014/2015	☐
(c) Proportion in the number of deliveries at facility	2003/2004	☐
	2008/2009	☐
	2014/2015	☐
(d) Outcomes of deliveries	2003/2004	☐
	2008/2009	☐
	2014/2015	☐
(e) Maternal mortality ratio	2003/2004	☐
	2008/2009	☐
	2014/2015	☐

Appendix C: Challenges And Opportunities For Rhco

(A). MOTIVATION: CHALLENGES OF TASK SHIFTING IN REPRODUCTIVE HEALTH BY TRAINED CLINICAL OFFICERS

Likert scale: (1= Strongly agree, 2=disagree, 3=not sure, 4=agree , and 5=strongly agree)

No	Description	1	2	3	4	5
01	FurtherTraining to gain skills, knowledge and atttitude for the job					
02	Being housed at hospital facility					
03	Receiving special allowance as specialist					
04	Able to record an increase in ANC attendance					
05	Reduced maternal mortality rate at facility					
06	Increase in number of deliveries attendance at facility					
07	Good delivery outcomes in the labour wards					
08	Good outcomes post surgery					
09	I am adequately remunirated for my job					

(B). WORKING ENVIRONMENT : CHALLENGES IN TASK SHIFTING BY TRAINED CLINICAL OFFICERS.

Likert scale: (1=strongly disagree, 2=disagree, 3=Not Sure, 4= Agree, and 5=strongly agree)

Number	**Description**	**1**	**2**	**3**	**4**	**5**
10	The facility has adequate equipment for my job					
11	I receive enough cooperation from doctors					
12	I receive enough coorporation from nurses					
13	I receive sufficcient cooporation from the hospital administration to discharge my job					
14	The environment is secure for my job					

(C). OPPORTUNITIES: REGULATORY MECHANISMS IN TASK SHIFTING FOR TRAINED CLINICAL OFFICERS

Number	Description	1	2	3	4	5
15	The Act of parliament on regulating our practice is sufficient to cater for our level of training					
16	I am licensed and registered by the council as a specialist to provide specialized practice					
17	An Act of parliament need to be amended to cater for my new skills and knowledge as a specialist					
18	Ineed more years to be trained as a specialist					
19	I am happy with the supervision i am accorded as an intern specialist and by my superiors at the facility					

(D). POLICY ENVIRONMENT IN TASK SHIFTING FOR CLINICAL OFFICERS

Number	Description	1	2	3	4	5
20	Policy on free maternal health services will improve the provision of maternal services					

21	I am satisfied with the policy of our training in RH					
22	I am satisfied with the policy on our RH practice in only district hospitals					

Appendix D: Key Informant Interview for Theatre and Maternal Health Staff

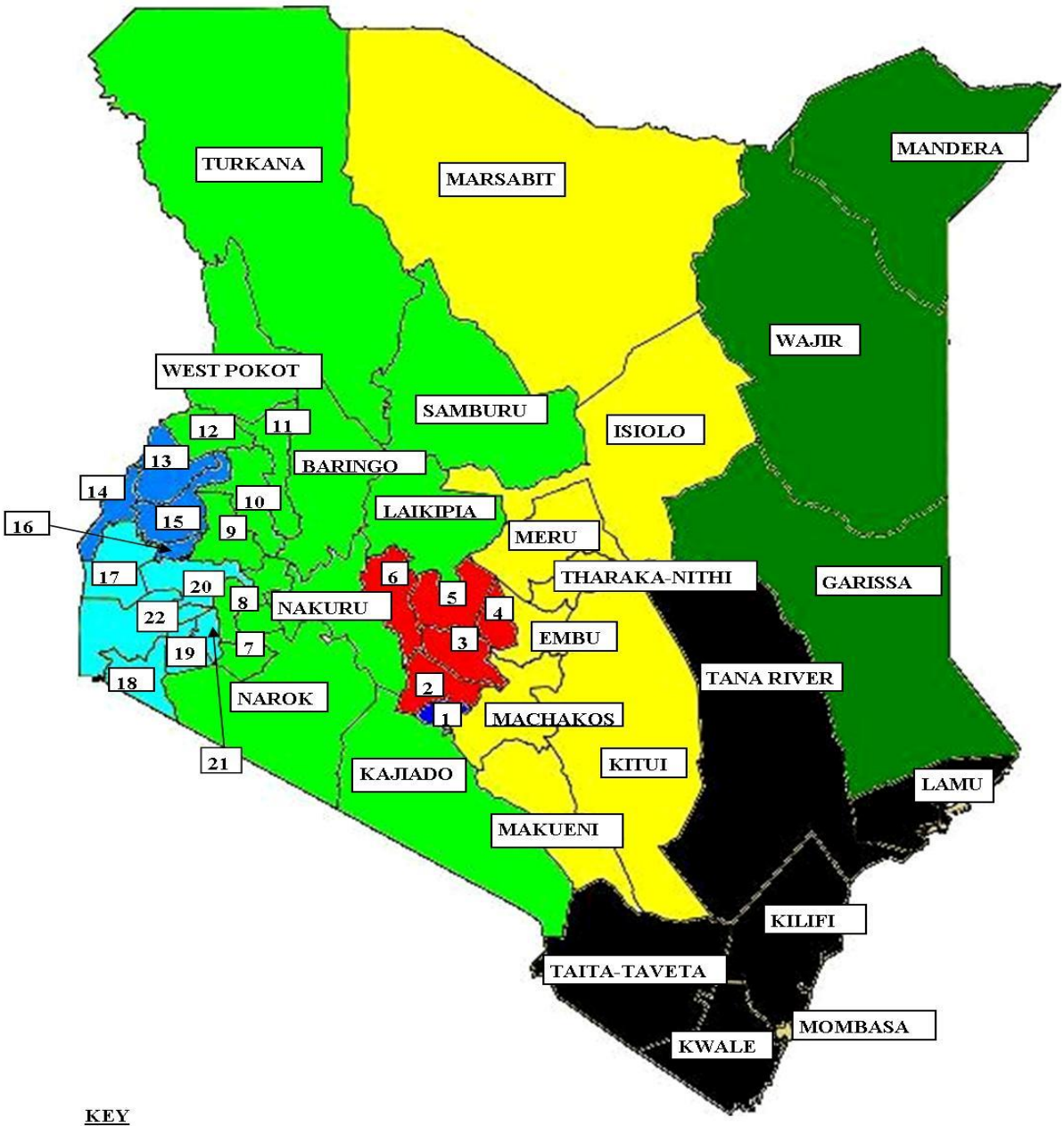
Questions

1. Clinical officers trained in reproductive health are now allowed to carry out emergency reproductive health invasive procedures. Kindly comment on their level of performance, suitability and perception by the other medical cadres especially the doctors and nurses.
2. Kindly explain, if any, the various challenges these officers have in the execution of their new found duties and responsibilities.
3. Having worked with them closely in theatre, what would you say are their strength and weaknesses?
4. Are there any remedial measures for improving maternal health regarding the cadre?
5. How would you rate the actual performance of this cadre?

Appendix E: Focus Group Discussion (Interview)

1. The cadre of clinical officers is now performing emergency reproductive health procedures. What would you say is their challenges to the job?
2. Suggest ways of assisting this cadre to improve maternal health in your facility?
3. How would you rate the cadre?
4. What do you think are future opportunities that exist for this trained group in reproductive health?
5. What would you say is their strength and weaknesses in their area of practice?

COUNTIES OF KENYA



KEY

1. NAIROBI
2. KIAMBU
3. MURANG'A
4. KIRINYAGA
5. NYERI
6. NYANDARUA
7. BOMET
8. KERICHO
9. TRANS NZOIA
10. UASIN GISHU
11. ELGEYO-MARAKWET
12. NANDI
13. BUNGOMA
14. BUSIA
15. KAKAMEGA
16. VIHIGA
17. SIAYA
18. MIGORI
19. KISII
20. KISUMU
21. NYAMIRA
22. HOMA BAY

Appendix F: Ethical Clearance

KENYA METHODIST UNIVERSITY
P. O. BOX 267 MERU - 60200, KENYA
TEL: 254-064-30301/31229/30367/31171
FAX: 254-64-30162
EMAIL: INFO@KEMU.AC.KE

24TH JANUARY, 2017

Kishasha Meshack Kijugu
HSM-3-3539-2/2013
Kenya Methodist University

Dear Meshack,

SUBJECT: ETHICAL CLEARANCE OF A MASTERS' RESEARCH PROJECT

Your request for ethical clearance for your Masters Research project titled "Task Shifting in Reproductive Health Service Delivery by Trained Clinical Officers in Kenya: Opportunities and Challenges" has been provisionally granted to you in accordance with the content of your project proposal subject to tabling it in the full Board of Scientific and Ethics Review Committee (SERC) for ratification.

As Principal Investigator, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the project.
2. Changes, amendments, and addenda to the protocol or the consent form must be submitted to the SERC for re-review and approval prior to the activation of the changes. The Proposal number assigned to the project should be cited in any correspondence.
3. Adverse events should be reported to the SERC. New information that becomes available which could change the risk: benefit ratio must be submitted promptly for SERC review. The SERC and outside agencies must review the information to determine if the protocol should be modified, discontinued, or continued as originally approved.
4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by subjects and/or witnesses should be retained on file. The SERC may conduct audits of all study records, and consent documentation may be part of such audits.

5. SERC regulations require review of an approved study not less than once per 12-month period. Therefore, a continuing review application must be submitted to the SERC in order to continue the study beyond the approved period. Failure to submit a continuing review application in a timely fashion will result in termination of the study, at which point new participants may not be enrolled and currently enrolled participants must be taken off the study.

Please note that any substantial changes on the scope of your research will require an approval.

Thank You,

Dr. Wamachi
Chair, SERC
Cc: Dean, RD&PGS

Kenya Methodist

University

P. O Box

267 – 60202

Meru, Kenya

Date……

……

To the Respective

County Directors of Health/Education (GK)

Dear Directors

REF: REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN YOUR COUNTY HOSPITAL FACILITIES

I am a post-graduate student taking Master's Degree in Health Systems Management at the Kenya Methodist University. I am to conduct the research titled ''the performance of trained Clinical Officers in Reproductive Health Service Delivery through Task Shifting in Kenya: Opportunities and Challenges''. My proposal has already undergone ethical clearance from the Kenya Methodist University Board of scientific and ethical Review committee. Research permit to conduct the research has also been approved by the National Council science Technology and Innovation (NACOSTI).

The purpose of this letter is to request for your permission to allow me to conduct the research in your health facilities.

Yours faithfully

Kishasha K. Meshack, REG. No. HSM-3/3539-2/2013

C.C to the following Directors of Health

1. Mombasa County

2. Machakos

3. Nairobi

4. Nakuru

5. Kakamega

6. Kisii

7. Muranga

Appendix G: NACOSTI

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **346498**

Date of Issue: **27/August/2019**

RESEARCH LICENSE

This is to Certify that Mr.. Meshack kijungu of Kenya Methodist University, has been licensed to conduct research in Kakamega, Kisumu, Machakos, Mombasa, Muranga, Nairobi, Nakuru on the topic: PERFORMANCE OF TRAINED CLINICAL OFFICERS IN REPRODUCTIVE HEALTH SERVICE DELIVERY THROUGH TASK SHIFTING: OPPORTUNITIES AND CHALLENGES IN KENYA for the period ending : 27/August/2020.

License No: **NACOSTI/P/19/907**

346498

Applicant Identification Number

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Sensitivity: *Medium*
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Responden	County	Age_Brack	WorkingEx	Caeserian s	Examinatio	Repair burs	Bilateral Tu	Mac stitch
R1	1	1	1	1	1	1	1	
R2	2	2	3	1	1	1	1	
R3	3	3	1	1	1	1	1	
R4	4	1	3	1	1	1	1	
R5	1	3	3	1	1	1	0	
R6	3	2	1	1	1	0	1	
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R9	3	3	3	1	0	1	1	
R10	4	2	2	1	1	1	1	
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R41	6	5	2	1	1	1	1	
R42	7	5	2	1	1	1	1	
R43	7	5	4	1	1	1	1	
R44	7	5	2	1	1	1	1	
R45	7	6	2	1	1	1	1	

MV-aspirat	Ruptured e	Marsupi-ali	Bartho-Abs	Rem-ovalo	Motivation	Motivation	Motivation	Motivation
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