A FRAMEWORK TO IMPROVE POSTNATAL CARE IN KENYA

BY

DINAH CHELAGAT

Thesis submitted in fulfilment of the requirements for the degree Philosophiae Doctor in Nursing (Ph.D Nursing)

In the Faculty of Health Sciences
School of Nursing

at the

UNIVERSITY OF THE FREE STATE

JANUARY 2015

PROMOTOR: PROF L ROETS UNIVERSITY OF SOUTH AFRICA (UNISA)

CO-PROMOTOR: PROF A JOUBERT UNIVERSITY OF THE FREE STATE (UFS)

DECLARATION

I hereby declare that the thesis submitted to the University of the Free State for the qualification Philosophiae Doctor (Ph.D) in Nursing is my original work and has not previously been submitted to/in any other faculty/university for the same qualification. No part of this thesis may be reproduced without prior written permission of the author and/or the University of the Free State.

SIGNATURE

D CHALEGAT

DEDICATION

I dedicate this work to my heavenly Father who gave me the strength to undertake the study. It is also dedicated to my family who have supported me throughout the period of the study. My family, especially my husband, sacrificed a lot and shouldered a number of responsibilities to enable me to complete my studies.

ACKNOWLEDGEMENT

I wish to acknowledge Moi University for granting me the opportunity to further my studies. More thanks goes to VLIR (A word that is translated to “sharing minds, changing lives”). A collaboration project between the Moi University and a number of Universities in Belgium deserves appreciation for their financial support to me during my study period. I wish to thank all the midwives who participated in the study and the administrators who granted me permission to conduct Phase 1 of the study in all the 37 hospitals. My gratitude goes to DRH (now the Reproductive and Maternal Health Services Unit) for the support accorded to me throughout my study period. I acknowledge the officers from DRH who participated in Phase 2 and 3 together with the Provincial Reproductive Health Coordinators who made it possible for me to achieve the objectives of this study. I sincerely acknowledge and thank my supervisors, Prof. L Roets and Prof. A Joubert, for the support and guidance offered to me during this study period.

LIST OF ABREVIATIONS

AMREF	**-**	African Medical Research Foundation
CHEWs	**-**	Community Health Extension Workers
CBHC	**-**	Community-Based Health Care
CHW	**-**	Community Health Workers
CORPs	**-**	Community-Owned Resource Persons
DRH	**-**	Division of Reproductive Health
HCDS	**-**	Health Care Delivery System
HENNET	**-**	Health NGOs Network
HICs	**-**	High Income Countries
HRM	**-**	Human Recourse Management
HSRa	**-**	Health Systems Research
HSRb	**-**	Health Sector Reform
ICM	**-**	International Confederation of Midwives
IQR	-	Inter quarter Ratio
IREC	**-**	Institutional Research Ethics Committee
KDHS	**-**	Kenya Demographic and Health Survey
KMTC	**-**	Kenya Medical Training Centre
KNBS	**-**	Kenya National Bureau of Statistics
LIMCs	**-**	Low and Middle Income Countries
MTRH	**-**	Moi Teaching and Referral Hospital
NGO	**-**	Non-Governmental Organisation
NGT	**-**	Nominal Group Technique
PHC	**-**	Primary Health Care
PNC	**-**	Postnatal Care
SD	-	Standard deviation
SSA	**-**	Sub-Saharan Africa
UN	**-**	United Nations
UNFPA	**-**	United Nations Population Fund
UNDP	**-**	United Nation Development Programme
UNICEF	**-**	United Nations International Children's Emergency Fund
WHO	**-**	World Health Organisation

SUMMARY

A FRAMEWORK TO IMPROVE POSTNATAL CARE IN KENYA

More than half a million women encounter complications during childbirth annually with a significant number of fatalities (UNFPA 2009: Online). It is estimated that 1,000 girls and women die in pregnancy or child birth each day (The White Ribbon Alliance 2010: Online; Ashford, Wong and Sternbach 2008:457-473). Ashford et al. (2008) further state that almost 40% of women experience complications after delivery with about 15% of these women developing potentially life-threatening complications.

Maternal mortality can occur either during the antenatal, intrapartum or postnatal period. However, strategies to reduce maternal mortality have focused on the antenatal and the intrapartum periods (Ministry of Health, Kenya 2006: 52). Maternal mortality can be reduced with improved postnatal care by skilled health care professionals , the majority of whom are the midwives in many low and middle income countries (Senfuka 2012: Online; UNFPA 2011c: Online). Maternal mortality is greatest during the postnatal period which remains the most neglected stage of maternal care especially in the LMICs Kenya included (Safe motherhood 2011: Online).

The aim of this study was to develop a Framework to improve postnatal care in Kenya. The study was accomplished in three phases whereby the first objective was to determine factors contributing to the current state of postnatal care services in Kenya which was undertaken in Phase 1.This objective was achieved through data collection where by 258 midwives completed a self-administered questionnaire plus a checklist used in 37 hospitals to assess the availability of physical resources required in the provision of postnatal care. Data analysis revealed that shortage of midwives exists in all the hospitals utilised for the study with a nurse midwife ratio of more than 10. It was further observed that midwives received incomplete orientation on being posted to the maternity units/postnatal wards hence their inability to provide quality postnatal care services. Policies and guidelines were reported to be inaccessible by a majority of the

midwives and that cultural and religious beliefs of clients were deemed to have some influence on the provision of the postnatal care.

The Nominal Group Technique was used among 13 Reproductive health coordinators in phase 2 to identify the strategies they deemed if employed would improve postnatal care in Kenyan hospitals.The six strategies identified in order of priority are capacity building, data management, quality assurance, human resource management, supportive supervision and coordination of postnatal care activities. The objective of this phase of study was achieved as the NGT process was followed scientifically and results obtained (the strategies) contributed to the development of the Framework as one of the important components of The Theory of Change Logic Model.

The third objective and final phase of the study was to develop a Framework to aid in improving postnatal care in Kenya. Development of the framework was accomplished by triangulating the results obtained from Phases 1 and 2. The Framework development was guided by the Theory of Change Logic Model which describes the casual linkages that are assumed to occur from the start of the project to the goal attainment (Frechtling 2007: 5; Taylor-Powell and Henert 2008: 4). The components of the Theory of Change logic by Kellogg (2004: 28) are the problem or issue, community needs, desired results, influential factors, strategies and assumptions (Kellogg 2004: 28). The draft Framework was presented to the Reproductive Health coordinators for validation in a meeting held on 12th March 2014. The stakeholders who are the Reproductive Health coordinators added their expert input to the components of the Theory of Change Logic Model during the validation process leading to a complete Framework aimed at improving postnatal care in Kenya.

OPSOMMING

‘N RAAMWERK ONTWIKKEL OM POSTNATALE VERSORGING IN KENIA TE VERBETER

Jaarliks ondervind meer as ‘n halfmiljoen vroue tydens die kraamproses en postnatale periode komplikasies met ‘n beduidende getal sterftes (UNFPA 2009: Aanlyn). Na skatting sterf duisend meisies en vroue elke dag gedurende swangerskap of tydens die kraamproses (The White Ribbon Alliance 2010: Aanlyn; Ashford, Wong en Sternbach 2008:457-473). Ashford *et al.* (2008) verklaar dat byna 40% van vroue postnatale komplikasies ondervind en ongeveer 15% van hierdie vroue potensiële lewensbedreigende komplikasies ontwikkel.

Moederlike sterftes kan gedurende die antenatale, intrapatum of postnatale periode plaasvind, maar strategieë om moederlike sterftes te verminder, fokus meestal op die antenatale en intrapartum periodes (Departement van Gesondheid, Kenia 2006:52). Moederlike sterftes kan verminder word indien postnatale sorg deur professionele gesondheidsorgwerkers met die nodige vaardighede verrig word – die meerderheid hiervan is gewoonlik vroedvroue vanuit die lae- en middelinkomste landstreke (Senfuka 2012: Aanlyn; UNFPA 2011: Aanlyn). Die voorkoms van moederlike sterftes is die grootste tydens die postnatale tydperk en tog is dit hierdie is stadium tydens moederlike versorging wat die meeste verwaasloos word, veral in die lae-en middelinkomste landstreke, insluitende Kenia (Veilige Moederskap 2011: Aanlyn).

Die doel van die studie was om ‘n raamwerk te ontwikkel wat postnatale sorg in Kenia sal verbeter. Die studie is in drie fases aangepak. Die eerste doelwit was om die faktore wat bydra tot die huidige toestand van postnatale sorg in Kenia, in Fase 1 vas te stel. Hierdie doelwit is bereik deur middel van data verkry vanuit die vraelyste wat 258 vroedvroue voltooi het, asook ‘n kontrolelys wat in 37 hospitale gebruik is om die beskikbaarheid van fisiese bronne, wat benodig word vir die voorsiening van postnatale sorg, te bepaal. Die dataontleding het ‘n tekort aan vroedvroue (in hierdie studie

gebruik) in al die hospitale aangedui, met ‘n verpleegkundige:vroedvrou ratio van meer as 10. Daar is ook bevind dat vroedvroue onvolledige oriëntasie ontvang wanneer in die kraam/postnatale eenhede geplaas word, vandaar hul onvermoë om kwaliteit postnatale versorging te kan lewer. Beleid en riglyne is ook aangedui as nie toeganklik vir die meerderheid van vroedvroue nie. Dit is verder bevind dat kliënte se kulturele gebruike en gelowe ook ‘n invloed uitgeoefen het op die voorsiening van postnatale sorg. Dertien koördineerders van die afdeling van Reproduktiewe Gesondheid, is vir Fase 2 geselekteer (deur gebruik te maak van die Nominale Groeptegniek) om strategieë te formuleer wat geïmplementeer kan word in hospitale in Kenia, ten einde postnatale versorging te verbeter. Die ses strategieë wat geïdentifiseer, volgens prioriteit, is: kapasiteitbou; gehalteversekering; menslike hulpbronbestuur; ondersteunende toesighouding en ko-ordinasie van postnatale sorgaktiwiteite. Die doelwit van hierdie fase van die studie is bereik deur die gebruikmaking van die NGT prosesse wat wetenskaplik aangewend is. Die resultate verkry (die strategieë) het bygedra tot die ontwikkeling van die Raamwerk wat basseer was op komponente van die ‘Theory of Change Logic Model’.

Die derde doelwit en finale fase van die studie, was die ontwikkeling van die Raamwerk wat die verbetering van postnatale sorg in Kenia, sal fasiliteer. Die ontwikkelde Raamwerk is voltooi deur die resultate, verkry uit Fase 1 en 2, te trianguleer. Die ontwikkeling van die Raamwerk is gerig deur die ‘Theory of Change Logic Model’ wat die skakeling van die aannames, vanaf die begin van die projek tot die doelbereiking, beskryf (Frechtling 2007: 5; Taylor-Powell en Henert 2008:4). Die komponente van die ‘Theory of Change Logic Model’ deur Kellogg (2004), omskryf die probleem of vraagstuk as die volgende: gemeenskapsbehoeftes; verwagte gevolge; faktore wat ‘n invloed uitoefen; strategieë en aannames (Kellogg 2004: 28). Die konsep Raamwerk is aan die koördineerders van die afdeling van Reproduktiewe Gesondheid voorgelê vir validering tydens ‘n vergadering wat gehou is op 12 Maart 2014. Dié belanghebbendes het hulle deskundige insette by die komponente van die ‘Theory of Change Logic Model’ gevoeg gedurende dié valideringsproses wat gelei het tot die voltooide Raamwerk wat gerig is op die verbetering van postnatale sorg in Kenia.

PREAMBLE

KENYAN HEALTHCARE DELIVERY SYSTEM

Prior to the implementation of the new Constitution of Kenya, which was promulgated in August 2010 following a public referendum, the structure of the Kenyan healthcare delivery system included two National Hospitals namely, the Kenyatta National Hospital and the Teaching and Referral hospital, seven Provincial hospitals and a hundred District hospitals.

Maternal care services, including postnatal care, were under the Division of Reproductive Health (DRH) at the national level. The officers in charge of the maternal care services at the National level, are the National Reproductive Health Coordinators, while those at the Provincial level are called 'Provincial Reproductive Health Coordinators'.

National Reproductive Health Coordinators are officers who have been trained at a degree or diploma level and licensed by their relevant regulatory bodies which are The Kenya Medical and Dentist Board, the Nursing Council of Kenya and the Clinical Officers Council of Kenya. These officers are deployed at the Division of Reproductive Health headquarters to coordinate all maternal and neonatal services throughout the country, assisted by the Provincial Reproductive Health Coordinators.

Provincial Reproductive Health Coordinator: A Provincial Reproductive Health Coordinator in Kenya is a person who has been trained and licensed by the Nursing Council of Kenya to practice as a nurse midwife. He/she is appointed by the Ministry of Health division for reproductive health to coordinate all reproductive health activities in their respective provinces.

With the implementation of the new constitution, Kenya is divided into two levels of governance, namely the National and County governments. There are 47 counties with

each county having a County hospital. The former District hospitals are now being called Sub-county hospitals and the provincial hospitals are now non-existent. The two referral hospitals have remained under the national government as they were prior to the implementation of the new constitution. DRH has been renamed 'Reproductive and Maternal Health Services Unit' and coordinates maternal care services in all the 47 counties. However, it is worth noting that the full implementation of the constitution came into effect after the general elections held in March 2013, which lead to the commencement of the two levels of government.

In the county government the healthcare activities, including postnatal care, are under the Department of Health which is headed by the County Executive Committee Member (or Minister) in charge of healthcare. The Department of Health in every county collaborates with the Reproductive and Maternal Service Unit, especially in training and supervision of healthcare workers in order to standardise maternal care services.

It is worth noting that this study was commenced under the previous system of governance and completed with the current structure of governance. The researcher has therefore taken into account the new structure of governance in the development of the Framework to improve postnatal care in Kenya.

TABLE OF CONTENT

DIAGRAM

TABLES

FIGURES

APPENDICES

CHAPTER ONE
OVERVIEW OF THE STUDY

1.1 INTRODUCTION

Chapter 1 comprises of an overview of the study, including the background, statement of the problem, aim, objectives, the study structure, definition of concepts, operational definitions as well as the research methodology.

1.2 BACKGROUND OF THE STUDY

Maternal and infant mortality are important health indicators for any society and has necessitated the United Nations (UN) Secretary General to set up a Commission on Monitoring and Evaluation of these two indicators (WHO 2011a: Online). According to the World Health Organisation (WHO), United Nations International Children's Emergency Fund (UNICEF) and United Nations Fund for Population Activities (UNFPA), a woman living in the Sub-Saharan Africa (SSA) has a 1 in 16 chance of dying in pregnancy, during childbirth or during the postnatal period (WHO 2004b: Online).

Annually, more than half a million women encounter complications during childbirth with a significant number of fatalities (UNFPA 2009: Online). It is estimated that a 1 000 girls and women die in pregnancy or childbirth every day (The White Ribbon Alliance 2010: Online; Ashford, Wong and Sternbach 2008:457-473). Ashford *et al.* (2008:457-473), further state that almost 40% of women experience complications after delivery, and that about 15% of these women develop potentially life-threatening complications. Complications following childbirth are more common and severe in the Low and middle-income countries (LMICs) (UNFPA 2009: Online). In Africa and South Asia the leading cause of death for women in the childbearing age includes complications arising during pregnancy and delivery (UNFPA 2012: Online).

Kenya is among the 13 countries that account for 67% of maternal deaths globally (WHO 2004b: Online) with one in every 25 women dying due to pregnancy-related complications (UNFPA 2007a: Online). The most recent National Demographic and Health Survey (KDHS) indicates that the maternal mortality rate in Kenya stands at 488 per 100 000 live births (KDHS 2010:273) - an increase from the previous 414 per 100 000 in 2003. Adding to this statistics is the alarming fact that for every woman who dies, another 30 will suffer pregnancy-related complications (Ministry of Health, Kenya 2006:2).

Long-term maternal complications arising during the postnatal period, include chronic pain, impaired mobility, damage to the reproductive system and infertility (Ngunyulu and Malaudzi 2009:49). Some women may also suffer genital prolapses, especially multiparous women. Genital prolapse is life-threatening and can lead to other complications in future pregnancies if not properly managed (Hosli 2010: Online). These complications could, however, be averted through preventive maternal healthcare services such as proper screening, health education, having a competent practitioner at birth and family planning (WHO 2013b: Online). Maternal complications could further be reduced by ensuring that maternal care services are accessible, affordable, effective, appropriate, convenient and acceptable to women and their families (Hunt and Bueno 2010: Online).

The majority of women in LMICs receive almost no postnatal care (Mrisho, Obrist, Schellenberg, Haws, Mushi, Mshinda, Tanner and Schellenberg 2009: Online). In very poor countries and regions such as Sub-Saharan Africa (SSA), only 5% of women receive postnatal care (Nankwanga 2004: Online). The small proportion of women receiving postnatal care is a big concern, considering that postnatal care is a fundamental component of maternal healthcare services for the prevention of impairments and disabilities resulting from childbirth (Dhakal, Chapman, Simkhada, Van Teijingen, Stephens and Raja 2007: Online).

Mrisho *et al.* (2009: Online) have reported a number of factors which may prevent women in LMICs from accessing postnatal care. These factors include the distance from a health service, high cost (including direct fees) and the cost of transportation, drugs and supplies, multiple demands on women's time, women's lack of power in decision-making within the family and poor quality of services (including poor handling by health providers) (UNFPA 2007b: Online). These barriers also exist in the Kenyan situation (Fotso, Ezeh and Oronje 2008:428-442).

Maternal morbidity and mortality can occur either during the antenatal, intrapartum or postnatal period. However, strategies to reduce maternal mortality have mostly focused on the antenatal and the intrapartum periods (Ministry of Health, Kenya 2006:52), maternal morbidity and mortality can be reduced with improved postnatal care by competent healthcare professionals, the majority of whom are the midwives in many LMICs as in Kenya (Senfuka 2012: Online; UNFPA 2011c: Online). Maternal mortality is the highest during the postnatal period. However, the postnatal period remains the most neglected stage of maternal care, especially in the LMICs (Safe motherhood 2011: Online). Challenges facing postnatal care have been a major concern in the health sector both nationally and internationally (Ministry of Health, Kenya 2006: 55-56).

Although various categories of healthcare providers have been known to provide maternal care, midwives have historically been known to provide care for women and their families during pregnancy, intrapartum and the postnatal period (UNFPA 2011c: Online; Nolte 2006:3-7). Quality postnatal care could possibly be improved if scientific methods of care, for examplethe scientific Tanner's (2006:204-211) Clinical Judgement Model and the Nursing care process (Tanner approach provides individualized midwifery care which should be preventive, curative and rehabilitative (Adrinah and Bases 2012:Online) are used to assess and identify the client's needs and/or problems. A plan of care to address these needs is then formulated and implemented. The degree to which the identified problem has been solved must then be evaluated.

The overall purpose of postnatal care is to meet holistic needs of the postnatal mother and her family without disregarding her religious and cultural values (Kaye-Petersen 2004:17-23). Given that most of the maternal deaths and complications are due to preventable causes (UNFPA 2012: Online), it is critical that cost effective healthcare services are instituted to provide the required care to mothers and their babies.

1.3 STATEMENT OF THE PROBLEM

Safe Motherhood (2011: Online) argues that the postnatal period is the most neglected aspect of child bearing. More than 50% of postnatal mothers in LMICs, Kenya included, receive no postnatal care six weeks following delivery, especially if they had a normal birth preceded by an uneventful antenatal period (Safe Motherhood 2007, 2011, 2012: Online).

Results of an unpublished study by the researcher in the postnatal ward of the Moi Teaching and Referral Hospital (MTRH) in Eldoret, Kenya, indicated that postnatal mothers are given minimal care after a normal delivery. Vital signs were not assessed and after-pains were largely unmanaged. Midwives paid more attention to mothers who had developed pregnancy or labour-related complications.

Data from Demographic and Health Surveys from 23 African countries showed that postnatal care were limited, and when it was offered, certain elements of the care were missing (Sines, Syed, Wall and Worley 2007: Online). The Skilled Care Initiative (2005) has supported this argument observing that postpartum care in Kenya, Burkina Faso and Tanzania is the most neglected aspect of maternal health. Midwives are generally unaware of the importance of assessing mothers for potential complications that could arise during the postnatal period (The Skilled Care Initiative 2005: Online).

Despite the benefits associated with postnatal care, a majority of mothers and their babies do not receive postnatal care from competent midwives (Sines, Syed, Wall and Worley 2007: Online).

This lack of postnatal care becomes a reason for concern considering that more than 60% of maternal deaths in LMICs occur during or soon after birth (WHO 2011a: Online). Nearly half of the maternal deaths occur within the first week of post-delivery with the majority dying within 24 hours (WHO 2013b: Online; Warren, Daly, Toure and Mongi 2006: Online).

Having read and observed the extent to which the postnatal period has been neglected, the researcher intends to develop a Framework to improve postnatal care in Kenya. It is anticipated that the results of this study and the proposed Framework will assist policy makers, the division of reproductive health, midwives and other healthcare providers to refocus on postnatal care in Kenyan hospitals.

s

1.4 AIM AND OBJECTIVES

The aim of this study was to develop a Framework to facilitate the improvement of postnatal care in Kenyan hospitals.

The specific objectives of this study were to:

- Determine the current state of postnatal care in Kenya (Study Phase 1)
- Identify strategies that can be employed in Kenyan hospitals to improve postnatal care (Study Phase 2)
- Develop a Framework that will aid in improving postnatal care in Kenya (Study Phase 3)

1.5 STRUCTURE OF PHASE ONE OF THE STUDY ACCORDING TO THE SYSTEMS MODEL.

Phase one of this study utilised the Systems Model (refer Diagram 1.1), one of the many models which originated from the General Systems Theory, to structure the study (Bertalanffy 1968: online).

The Systems Model has been used by different disciplines to structure, organise, understand and interpret reality (Goodman 2002: Online). This model was employed to aid in diagnosing organisational problems and redesigning appropriate problem solving processes (Hilder 1995: Online). In Uganda the same model was used in the quality assurance programme to improve and cultivate a culture of quality service among the healthcare professionals (Omaswa, Bainga, Mwebesa and Burnham 1994:32-34).

The Systems Model posits that the provision of services can be broken down into five related parts, namely inputs, processes, outputs, outcomes and impacts. The researcher adopted the Systems Model because of the relevance of its components to the study (Omaswa *et al.* 1994: 32-34). Each component of the model, as it applies to the postnatal care as the focus of this study, is herein explained (refer Diagram 1.1).

Inputs refer to all resources that are required in order for an activity to be undertaken such as human, financial and other material resources (Omaswa *et al*. 1994:32-34). In this study, the resources included: **Human resources** who are the midwives and the focus is on training, ratios and utilisation. **Material resources** which are equipment and supplies together with medicines and essential drugs. **Physical resources** which are the health care facilities. **Fiscal resources** which are required for postnatal care activities. **Managerial resources** include policies, guidelines, procedures and protocols, supportive supervision, interpersonal collaboration and performance appraisal (refer Diagram 1.1).

On the other hand, **processes** refer to a series of steps or activities that are undertaken to bring about the desired end or output. In this study, the process referred to the identification of strategies that can be employed in maternity units/departments to bring about the desired postnatal care. These processes include identification of strategies to improve on postnatal care. Development of policies, guideline procedures and protocols to utilise in the improvement of postnatal care, falls under this process. Midwifery training, supportive supervision, commodity logistics and documentation are also components of this process (Onawa, Being, Mesas and Burnham 1994:32-34).

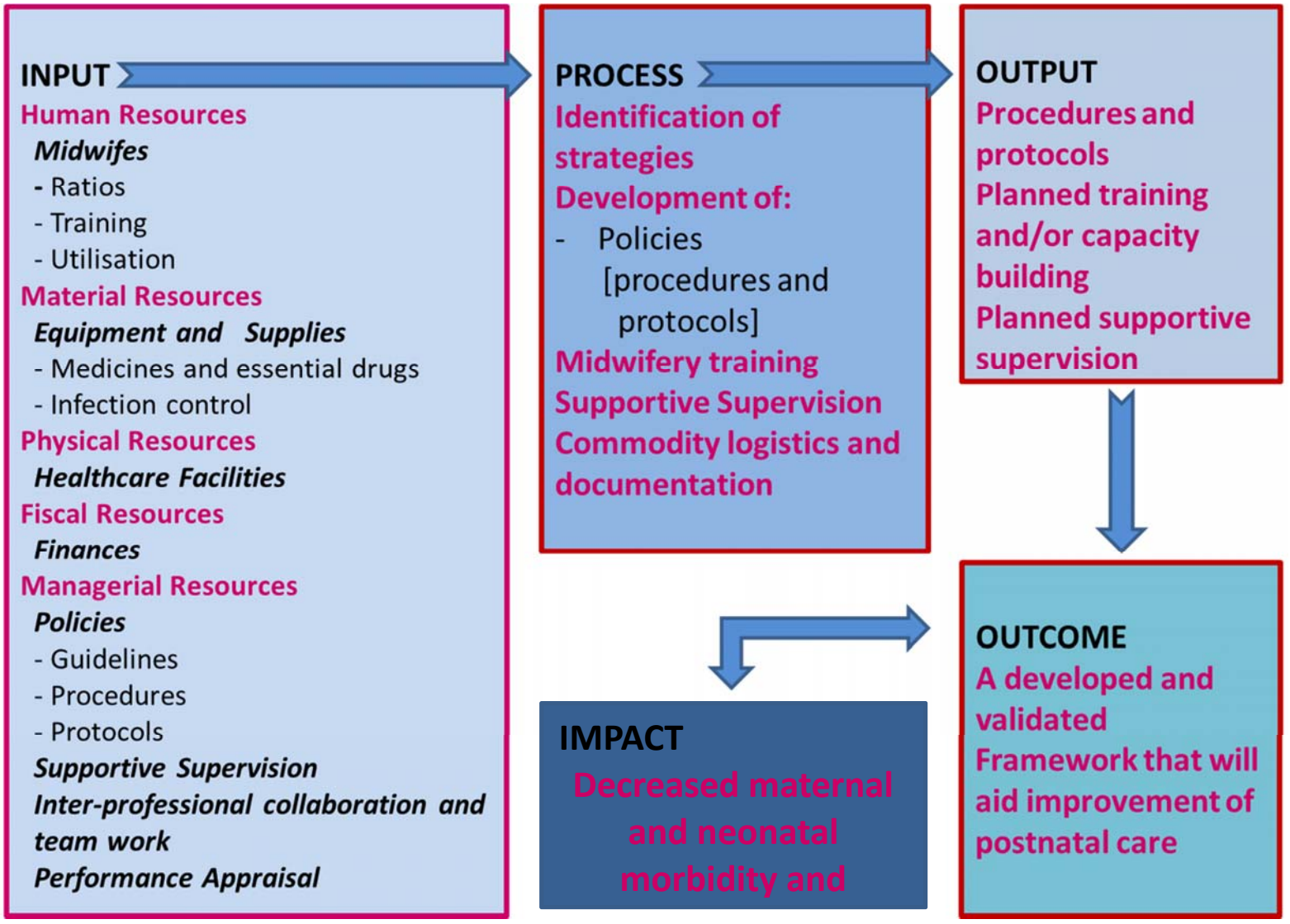


Diagram 1.1: The application of the Systems Model (Onawa *et al*. 1994:34) in the provision of postnatal care.

Outputs are the immediate result that follow an activity and is the direct result of interaction between the input and the process (Fettling 2007:22). In this study, the outputs included the policy guidelines developed, planned training and assessments as well as planned supportive supervision visits to the postnatal units.

The **outcome** is the relationship of the output and the objective of the activity undertaken. It demonstrates changes that occur, showing movement towards achieving ultimate goals and objectives. Outcomes can therefore be termed as desired accomplishments or changes that proof the success of a project (Fettling 2007:21-22; Onawa *et al.* 1994:32-34). The outcome, in this study, was the developed and the validated Framework that is expected to improve postnatal care in Kenya.

Impact is described as the long-term effect of the outcome and, in most cases, is observed over a period of 7-10 years (Fettling 2007:21-22). In this study, the impact will be the reduction in maternal and neonatal morbidity and mortality, which will be in the long term and therefore cannot to be included and evaluated in this study.

1.6 DEFINITIONS AND OPERATIONAL TERMS

Framework: A Framework refers to a basic structure that is used to solve or address complex issues by focusing on what is to be done and how it is to be done (Ministry of Health Uganda 2011a:Online). In this study the Framework refers to the end product of this study, a Framework that will guide the stakeholders to improve postnatal care in Kenya. To develop the Framework, data was gathered by using a checklist, questionnaire and the nominal group technique (NGT).

Midwife: A midwife is a person who has successfully completed a midwifery education programme that is recognise in the country where it is presented. This qualification is based on the International Confederation of Midwives (ICM) essential competencies for basic midwifery practice and the Framework of the (ICM) Global standards to be registered and/legally licensed to practice midwifery that enables the ‘midwife’ to

demonstrates competency in the practice of midwifery (International Confederation of Midwives 2011: Online).

Postnatal care: Postnatal care encompasses a number of activities aimed at monitoring and managing a mother who has given birth and also delivering care up to a period of six weeks after the delivery. During this period, the physical and emotional needs of the mother are addressed by the midwife while working in partnership with other healthcare providers, such as the obstetricians and paediatricians. Monitoring and management of the baby for the first 28 days is also included in the postnatal care period (Warren *et al.* 2006: Online). Postnatal care includes the postnatal assessment and interventions performed on the mother and baby, including advice and counselling from the time of birth to six weeks after delivery.

1.7 METHODOLOGY

This study was done in three phases. In phase 1 a survey was adopted to describe the current state of postnatal care observed in Kenyan hospitals. A literature review was done to aid in the development of a valid questionnaire and checklist to be used in data collection. The study population in this phase included all midwives and all hospitals in Kenya (refer Diagram 3.1).

The hospitals which were sampled were referral, provincial and district hospitals. The sampled hospitals were selected from a population which consisted of two referral hospitals, seven provincial hospitals and hundred district hospitals as in July 2010 (Unpublished report, Ministry of Health, Kenya 2010). A multistage stratified sampling was used to determine the hospitals to be studied. Stratified and random sampling techniques aided in achieving representation from these three groups of hospitals. Proportionate random sampling was used to determine the exact hospitals per province to be included in the study. One of the two referral hospitals, four of the seven provincial hospitals and 50% of the district hospitals from the sampled provinces were randomly selected. A total of 37 hospitals were sampled for the study (refer Diagram 3.1).

A total of 258 midwives in all the three levels of hospitals were sampled to participate in the study. At the Teaching and Referral Hospital, 13 midwives from the postnatal ward were conveniently selected as participants in the study. From each of the four provincial hospitals, 6 midwives were conveniently selected to make a total of 24 midwives from the provincial hospitals. A total of 221 midwives from these district hospitals were conveniently selected to participate in the study**.** A detailed description on how the number of midwives selected from each category, is described in chapter 3 (refer Diagram 3.1).

In Phase 2 and 3, the Health Systems Research (HSR) was used among the National and Provincial Reproductive Health coordinators. The adoption of Health Systems Research allowed the researcher to offer policy options to reproductive health managers/coordinators and assist them in making decisions regarding potential solutions to problems currently being faced in the provision of postnatal care.

The population in these phases comprised five officers from Division of Reproductive Health, which is the National Reproductive Health co-coordinating office as well as the Provincial Reproductive Health Coordinators from the eight provinces. The study population therefore consisted of thirteen respondents. No sample was drawn as the population being studied was small. Therefore, all the respondents were conveniently selected to participate in the study (refer Diagram 3.1).

Data collection in phase 2 was done in two sessions. In session 1, the researcher presented data obtained from phase 1 which was followed by presentation of challenges faced in the utilisation of postnatal care presented by the thirteen National and the Provincial Reproductive Health coordinators. In session 2, the researcher utilised The Nominal Group Technique (NGT) among the coordinators to determine the strategies that could be used to develop a Framework to improve postnatal care in Kenya. The NGT is a consensus seeking method that allows each participant the opportunity to present their ideas without feeling threatened or intimidated. (Van Brenda

2005:2; Dobbie, Rhodes, Singer and Freeman 2004:402-406; University of Vermont 1996: Online; Welbeck, Van de Venn and Gustafson 1975:33; Centre for Rural studies 1998: Online).

Phase 3 was the development of the **Framework to improve on postnatal care in Kenya**. This phase of the study was accomplished in three steps. In step1, the researcher undertook a literature review on Framework development and developed a draft Framework which was presented to the National and Provincial Reproductive Health coordinators for validation in step 2. The third step was the development of the final Framework incorporating inputs from coordinators obtained during the validation.

1.8 VALIDITY AND RELIABILITY

Validity refers to the degree to which the research instrument measures what it is supposed to measure (Botma, Greeff and Mulaudzi 2010:174-178). Validity was ensued in all the phases of the study. In phase one, validity was enhanced by the researcher conducting a literature review to develop valid data collection tools - a questionnaire and a checklist. Evaluation of both the questionnaire and the checklist by an expert committee of the Faculty of Health Science at the University of the Free State, further added strength to the data collection tool.

Credibility intends to check whether there is compatibility between the constructed realities that exist in the minds of respondents and those that are attributed to themes. Resources consulted in phase two, which was mainly a qualitative study design, were Polit and Beck (2006:498) and Rossouw (2003:181-184). The researcher sought to ensure credibility of the results by first ensuring that the relevant participants were invited to the Nominal Group Discussion and that the correct process of data collection, according to the Nominal Group Technique (NGT), was followed. An expert in NGT was present and supervised the data collection process.

In phase 3, validity was ensured in the development of a Framework by the researcher who did a thorough literature review on Framework development, before using the Theory of Change Logic Model. The step by step approach in Framework development according to the Theory of Change Logic Model, triangulation of results of phase 1 and 2 and the validation of the Framework by the stakeholders further strengthened the validity.

Reliability of an instrument is the degree of consistency with which it measures what it is supposed to be measuring (Bless, Higson-Smith and Sithole 2013:222-229; Blanche, Durrheim and Painter 2011:92-93; Botma, Greeff, Mulaudzi and Wright 2010:177-178). This study employed the test–retest reliability method, which was determined by administering the same questionnaire to the same midwives working at the maternity unit where the pilot test had been undertaken, in Phase 1. The results obtained were consistent with those of the pilot study (Bless, Higson-Smith and Sithole 2013:223; Botma, Greeff, Mulaudzi and Wright 2010:177-178).

Dependability, a concept similar to reliability that meant to provide evidence that, if the research were to be repeated with the same or similar respondents and in the same context, similar findings would be obtained (Brink 2006:118-119; Babbie and Mouton 2003:276-278), was illustrated in Phase 2. The rules of the NGT that were explained to the Reproductive Health coordinators were adhered to in the step-by-step process which further influenced the credibility of the results and is deemed to have had a positive influence on the dependability of the study as well.

1.9 ETHICAL CONSIDERATIONS

The conduct of research requires not only expertise and diligence, but also honesty and integrity. Conducting research ethically starts with the identification of the study topic and continues right through to the publication of the study results (Botma, Greeff, Mulaudzi and Wright 2010:1-4). Ethical approval of the study was sought from the Ethics Committee of the Faculty of Health Sciences of the University of the Free State.

Similarly, ethical clearance was sought from the Institutional Research and Ethics Committee (IREC) at the Moi University School of Medicine and the Moi Teaching and Referral Hospital. Formal approval to conduct the study was granted on 28th July, 2011 (Approval number: **FAN: IREC 000675**).

Permission to carry out the study was also sought from the administrative divisions of all the hospitals that took part in both the pilot and the main study before the data collection process commenced. The researcher abided by the Nuremberg Code by allowing the participants to voluntarily consent to participate in the study. The nature and the purpose of the research were explained to the respondents in order to ensure informed consent all respondents. They were made aware that the information obtained would be used in developing a Framework towards improving postnatal care.

The researcher informed participants that there would be no remuneration for participating in the research study. The information document also clearly stated that there were no risks in participating in the study – all it would take is 30 minutes of their time to sign an informed consent form and to complete the questionnaire.

The researcher respected the individuals' rights to safeguard their personal integrity and therefore participating in the study was voluntary and any respondent was free to withdraw from the study at any time if s/he so wished. The respondents were assured of confidentiality as no names or personal identification numbers were reflected on the questionnaires. Throughout the study the principles of beneficence, doing good and non-maleficence not to do harm to the respondents, were applied. These ethical considerations were applied during all three phases of the study.

1.10 SIGNIFICANCE OF THE STUDY

The research findings will support the development and implementation of a developed Framework with the potential of contributing to the improvement of postnatal care in Kenya. Due to the involvement of the National and Provincial Reproductive Health

Coordinators of the different regions, it is anticipated that this Framework will be adopted by government and incorporated into essential obstetric care throughout the country. Research findings are expected to positively influence midwifery practice and enhance midwifery education.

Findings from the study will further contribute to the body of knowledge on postnatal care through publications of the results in peer reviewed journals and also contribute to the career development of the researcher.

1.11 SUMMARY

Chapter 1 provides the reader with an overview of the introduction, background to the study, problem statement, aim and objectives and the methodology of the research study. In **Chapter 2** the literature review is done with the aim to address objective one, namely to develop instruments to assess the current status of postnatal care in Kenya.

1.11.1 THESIS AND CHAPTER LAYOUT

The chapters in this thesis are organised as indicated in Table 1.1.

Table 1.1: Thesis and chapter layout

CHAPTER	DESCRIPTION OF CHAPTER CONTENT	PURPOSE
Chapter 1	OVERVIEW OF THE STUDY	
Chapter 2	LITERATURE REVIEW	Questionnaire development Checklist development
Chapter 3	PHASE 1 Methodology Research results Discussion of results	*Step 1:* Data gathering from midwives using a questionnaire *Step 2:* Data gathering: Audit of selected hospitals using a checklist
Chapter 4	PHASE 2 *Methodology* Session 1 (a): Presentation of data gathered in phase 1 Session 1 (b): Presentation of data by National Reproductive Health Coordinators regarding the utilisation and services rendered at healthcare facilities Session 2: Nominal Group Technique (NGT) *Literature control*	Data gathering from the National and Provincial Reproductive Health Coordinators Literature control to support or control findings gathered through the Nominal Group Technique (NGT)

Chapter 5	**PHASE 3** **Literature review on Framework development** **Draft Framework developed** **Validation of draft Framework** **Final Framework**	**Development of the Framework** **To present Framework to all NRHCs and PRHCs for validation**
Chapter 6	**CONCLUSIONS** **RECOMMENDATIONS**	

CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 2 presents a literature review that was conducted to obtain the relevant information for the development of a valid and reliable questionnaire and a checklist (refer Table 2.1). This chapter is organised under the following headings: postnatal care and its importance; inputs required for the provision of postnatal care which included human, material, physical, fiscal, managerial resources, supportive supervision, inter-professional collaboration and team work; and lastly, performance appraisal (refer Diagram 1.1, Chapter 1).

Table 2.1: Thesis and chapter layout

CHAPTER	DESCRIPTION OF CHAPTER CONTENT	PURPOSE
Chapter 1	OVERVIEW OF THE STUDY	
Chapter 2	LITERATURE REVIEW	Questionnaire development Checklist development

2.2 POSTNATAL CARE

Postnatal care involves all the procedures or activities which are performed on women in the first 42 days after completion of the third stage of labour. Similarly, the care provided to babies during the first 28 days of life, constitutes an important component of postnatal care (Kenya Ministry of Public Health and Sanitation 2012:12; Warren *et al.* 2008: Online; Kay-Petersen and Nzamba 2004:17-3). Postnatal care is an integral aspect of maternal care, given that childbirth and the immediate postpartum period

represent a major transition in a woman's life. If not manage well, this period may be a critical and life threatening time for both the mother and the baby (Kenya Ministry of Public Health and Sanitation 2012:18; Sines, Syed, Wall and Worley 2007: Online).

The main purpose of postnatal care is to promote and maintain the health of the mother and her baby as well as creating an environment that offers essential support to the extended family and the community (WHO 2010b: Online; Kay-Peterson and Nzama 2004: 17-3). This support covers physical, mental and emotional needs as well as addressing socio-cultural issues that may affect their health and wellbeing. First time parents usually require more attention and support, especially on parenting and responsibilities (WHO 2010b: Online).

Care during the postnatal period aims at promoting the health of mother and baby, as well as preventing the development of complications, thus, contributing to the reduction in maternal and neonatal morbidity and mortality (WHO 2010b: Online). Care during the postnatal period further assists the mother to return to optimal health after the effects of pregnancy and labour. This includes physical, psychological, spiritual and emotional wellbeing (Cheng, Fowlers and Walker 2006:34-42).

An important aspect of postnatal care that is often overlooked, is the provision of information to the mother and the family. While in hospital and following discharge, the postnatal mother and her partner requires all the healthcare education necessary to manage their day-to-day life and that of their baby (Beksinska, Smit, Mabude and Vijayakumar 2006:386-393).

The care provided during the postnatal period is not only essential for the survival of the mother and the baby, but has an effect on their future wellbeing, because of the major physical and psychological changes that have taken place (WHO 2010b: Online**)**. The midwife needs to identify the essential and individual care and support that the mother and baby should receive (MacArthur, Winter, Bick, Lilford, Lancashire, Knowles, Braunholtz, Henderson, Belfield and Gee 2003:91-98).

The postnatal period is an ideal time to perform interventions in order to improve the health of both the mother and the baby. Yet, in many countries postnatal care delivery is still very poor with only a few mothers seeking this important type of care (Warren *et al.* 2006: Online). A great majority of the postnatal mothers do not seek for care due to the assumption that physical recovery will always be smooth after a normal pregnancy and delivery, while others assume that they do not need special care, because they are not sick (WH 2010: Online; Daher, Estephan, Abu-Saad Huijer and Naja 2008 : Online). Despite the benefits associated with postnatal care, the utilisation thereof in most LMICs and some of the High income Countries (HICs) countries, remains dismal with more than 50% of the mother not seeking care (Titaley, Dibley, Roberts, Hall and Agho 2009:500-508; Cheng *et al.* 2006:34-42).

2.2.1 POSTNATAL CARE: PROVIDERS, ROLES AND RESPONSIBILITIES

Postnatal care is offered by different categories of healthcare providers that vary from country to country. In the United Kingdom the majority of the maternal care services are offered by midwives. In the US, the midwives offer only 8% of maternal services while in the Netherlands the midwives collaborate with obstetricians in offering maternal care services (De Vries 2012:9-10). In many other countries the midwives are the chief providers, especially in cases where the mother has had a normal birth in a public healthcare institution (Nyasulu 2012:35-40; WHO 2009: Online; Nolte 2006:12-14).

In Kenya, doctors, clinical officers, registered and enrolled midwives and nurses are the healthcare practitioners that provide maternal care services (Godia, Jilo, Kichamu, Pearson, Ongwae, Kizito, Muga and Fort 2005:112). Globally, midwives constitute a greater proportion of these competent practitioners (UNFPA 2011c: Online).

The midwife has caring roles that range from providing preventive, promotive, curative, supportive and rehabilitative services for the mother in the postnatal period (Australian Nursing Federation 2010: Online). The midwife further ensures that the infant receives

the care s/he needs in order to achieve and maintain optimal health and development (Cheng *et al.* 2006:34-42). The developed Framework will further enhance the midwife to achieve the above stated roles.

The responsibilities of the midwife include physical care, psychological support, counselling and health education to the mother and the family (Warren *et al.* 2008: Online). The midwife in her/his practice should, however, be sensitive to the norms and values of the community in which they are serving to enable them to render effective care (Kamwendo 2012: Online).

2.2.2 COMPONENTS OF POSTNATAL CARE

Several care-related activities are performed on the mother and her baby to address their needs during the postnatal period. The Nursing Process, which begins with the assessment of every mother and her baby, is utilised as the basis of care provision (Nolte 2006:12-14). The general assessment includes evaluation of the general condition of both mother and new baby. Firstly, a physical examination from head-to-toe is performed to rule out the common complications that may be present during the postnatal period. The midwife rules out anaemia by assessing for pallor on the conjunctiva, then assesses the mother's breast for engorgement and cracked nipples. The abdomen is examined to assess involution of the uterus. The midwife also assesses the condition of the perineum and the amount of lochia loss to rule out any trauma or excessive vaginal haemorrhage. Postnatal haemorrhage is the leading complication encountered after birth (Family care International 2006: Online). Lastly, the midwife assesses the lower limbs and rules out complications, e.g. deep venous thrombosis. Assessment of the vital signs is undertaken whether they are within the normal ranges or not (Marchant and Sengane 2006:611-620).

Nutritional status is assessed to determine whether the mother is well nourished or requires some intervention to improve her nutritional status. The new-born baby, during this postnatal period, needs to be exclusively breast fed. The midwife assesses if the

baby is properly breastfed or if the mother requires assistance. Breastfeeding, sleeping patterns and activities of both mother and baby, are assessed. The midwife also assesses for proper circulation, elimination patterns of both mother and baby and if any discomfort may be experience (Marchant and Sengane 2006:611-620).

If the mother had a caesarean section, the scar is assessed for any bleeding and/or signs of infections. To rule out further complications, involution of the uterus should also be assessed in addition to an abdominal examination to detect any discomfort experienced by the mother (Hamilton and Nolte 2006:575-576).

Psychological or emotional problems, that are common among postnatal mothers, should be observed, e.g. postpartum blues or postpartum depression (Raynor, Oates and Sengane 2008:635-646). Early diagnosis and management prevents progression to puerperal psychosis, especially to those mothers with a known predisposition **(**Kay-Peterson and Nzama 2004:17-3-17-10; Du Plessis 2007:140-194). The assessment of the psychological and emotional wellbeing of postnatal mothers is often overlooked by midwives during their practice and thereby missing out on early signs of complications. Midwives tend to focus more on what is expected of them by the institution rather than providing the support expected of them by the postnatal women. The support required of them may be unclear or undefined resulting in poor nursing care (Thorestensson, Ekstrom, Lundgren and Wahn 2012: Online). That might be the reason why, in a study done by Fenwick, Butt, Dhaliwa, Hauck and Schmid (2010: Online), women whose perspective on midwifery care was asked, have reported positively on physical care, but negatively with regard to emotional care.

Assessment being completed, the other steps in the Nursing Process, namely diagnosis, planning, implementation, evaluation and recording of rendered care according to a care plan, are done (Kaye-Petersen 2004:1-5). Patient assessment is done on a daily basis, or more often depending on the patient's condition, to enable the midwife to deliver appropriate care to every individual mother and baby. The care provided should, however, be based on the best available evidence and not on rigid

routines which have always been performed without any benefit to the patient (Sakala and Corry 2008: Online).

2.2.3 ORGANISATION OF POSTNATAL CARE

The Ministry or Department of Health in every country are charged with the responsibility of organising postnatal care. However, the WHO provides guidelines aimed at improving child survival and reduction of maternal morbidity and mortality (Sines *et al.* 2007: Online). Postnatal care caters for those mothers who deliver in hospital facilities as well as those who deliver at home (WHO/UNUCEF 2009: Online). If a mother gives birth to her baby in a medical facility (hospital), proper assessment is done in order to identify any risk factors for postnatal complications. The mother is given a follow-up date on which to visit the facility for a check-up examination and the first immunisation of her baby. The WHO and UNICEF recommend that any baby born outside of a healthcare facility, should be visited at home by a nurse or midwife within 24 hours after birth. Two additional visits within the first week after birth are further recommended. Other follow-up appointments should take place at 6 weeks and 6 months after date of birth (Sines *et al.* 2007: Online).

The purpose of the follow-up visits is to monitor the mother and her baby and to detect potential complications early. During the follow-up visits, postnatal mothers are further informed to report any danger signs for themselves and/or their babies to the nearest healthcare facility as soon as such signs manifest (Warren, Daly, Toure and Mongi 2008: Online). The postnatal visits provide an opportunity for assessment and discussion of issues such as hygiene, care of the new-born, breastfeeding and appropriate feeding methods and timing of family planning. The midwives further encourage and support the practice of exclusive breastfeeding and emphasise the importance of proper nutrition for the mother. Iron/folate supplementation should be continued when necessary to prevent iron deficiency anaemia during the postnatal period (WHO 2013a: Online)

In Kenya postnatal care for those mothers who deliver in healthcare facilities begins at the hospital and continues in the community where the midwife visits the woman at home. The home visit is part of the community strategy aimed at bringing healthcare services close to the population (Muga, Kizito, Mbaya and Gakuru 2004: Onlisne). Those mothers who deliver at home are encouraged to go to the nearest healthcare facility for assessment and follow-up as soon as possible after delivery. The community health workers (CHWs) are key in ensuring that these mothers and their babies receive the required care (Warren *et al.* 2006: Online; Muga *et al*. 2004: Online). The type of care provided during the postnatal period is flexible and aimed at meeting the individual needs of the mothers and their babies. During the postnatal period, the mother needs to have confidence in the midwife whom she can call upon while in hospital or after discharge at home (MacArthur *et al.* 2011:1001-1007).

Since postnatal mothers in Kenya are currently discharged from hospital immediately after delivery, sometimes within six hours after giving birth, comprehensive health education should be given by the midwives during the antenatal period. Health education could ensure that mothers are adequately prepared for their role in the postnatal period. Education should include information on good personal hygiene practices, immunisation of babies and the intake of dietary supplements by the mother. Health education given by midwives should also include psychological, social and physical aspects of postnatal care. For midwives to be able to render effective postnatal care, inputs at healthcare facilities and on community levels, are crucial. The inputs required for the provision of postnatal care indicated in Diagram 1.1, Chapter 1, are described below.

2.3 INPUTS REQUIRED IN THE PROVISION OF POSTNATAL CARE

Inputs are all resources that are required in order for an activity to take place (Omaswa *et al.* 1994:32-34). Firstly, inputs consist of human, material, physical, fiscal and managerial resources. Secondly, the provision of postnatal care are supportive supervision policies (guidelines, procedures and protocols), inter-professional

collaboration and team work, as well as performance appraisal of midwives providing postnatal care. The human resources relevant to this study were the midwives. Midwives are the chief providers of postnatal care in Kenyan public healthcare institutions where the majority of women receive postnatal care (Turan, Bukusi, Cohen, Sande and Miller 2008:588-595)**.**

2.3.1 HUMAN RESOURCES (INPUT)

In dealing with healthcare, human resource includes clinical and non-clinical personnel responsible for public and individual health interventions. Although human resources are considered the most important component of the health system inputs, in most countries like Kenya, the health sector has an acute shortage of human resources (UNFPA 2010 b : Online; Islam 2007: Online; Kabene, Orchard, Howard, Soriano and Leduc 2006:1-17).

Insufficient human resources in the healthcare sector of many countries, Kenya included, have seriously impeded progress towards achievement of the health-related Millennium Development Goals (MDGs) as it negatively impacts on service delivery (Brown and Gilbert 2012:14-21; UNFPA 2010b: Online). In Kenya the national public sector nurse/midwife to population density varies between 1.2 per 1,000 to as low as 0.08. This is extremely low as the WHO considers any member country with less than 2.28 as deficient (Wakaba, Mbindyo and English 2014: Online; WHO 2006: Online). Shortage of human resources, especially nurses and/or midwives, are associated with maternal and neonatal mortality (UNFPA 2010b: Online). Provision of healthcare services requires a multi-disciplinary team approach, but to achieve safe motherhood in which postnatal care is a major component, obstetricians and midwives are the key professionals needed (WHO 2011c: Online). The researcher in this study however focused on the midwives because they are the main providers of postnatal care in many LMICs like Kenya (Turan *et al.* 2008:588-595).

2.3.1.1 Ratios, training and utilisation of midwives

Although postnatal care can be offered by various categories of healthcare personnel, midwives are the chief providers, especially in cases where the mothers have normal deliveries in public healthcare facilities (Nyasulu 2012: 35-40; WHO 2009: Online; Nolte 2006:12-14). According to UNFPA (2008: Online), maternal morbidity and mortality cannot be reduced without the active participation of midwives. Midwives, as seen in the study structure, are the key inputs necessary for the improvement of postnatal care (refer Diagram 1.1).

➲ **Ratios of midwives**

The midwife to patient ratio is an important component of human resource management, but ratios should not only be about numbers but the appropriate skills required for provision of quality postnatal care considered (Uys and Klopper 2013:1-4). The existing shortage of midwifes in the LMICs, like in Kenya, has contributed to the high midwife patient ratio (Wakaba, Mbindyo and English 2014: Online). The Nursing Council of Kenya recommends a ratio of 1 midwife to 5 patients. The situation on the ground level however, is very dire with one midwife caring for over 20 postnatal mothers and their neonates (Nursing Council of Kenya 2012: 15).

➲ **Training of midwives**

The training and qualification of midwives and nurses varies from country to country with the appropriate requirements stipulated by specific institutions within each country (Fullerton, Johnson, Thompson and Vivio 2010: Online). Standards for midwifery training are prescribed by the International Confederation of Midwives (ICM). Each member country then needs to develop their own specific standards based on those of the ICM (ICM 2011: Online). Approved institutions undertake the training of healthcare professionals in a particular country (Sherratt and Tjallinks 2006:957-959).

In Kenya training of midwives takes place at colleges and universities. A majority of the nurses/midwives received their training from the Kenya Medical Training College

(KMTC), which started the comprehensive training covering general nursing, midwifery, and community health nursing in 1987. The nurse/midwife training at the degree level commenced in 1988 and has continued into the three major subspecialty disciplines of general nursing, midwifery and community health nursing as is the case in the diploma and the certificate levels (KMTC, 1987: Online). Due to the admission and selection criteria at colleges and universities, the level at which midwives are trained, depends mainly on high school grades passed.

The International Confederation of Midwives (ICM) recommends the minimum duration for midwifery education as three years, while the minimum duration for those with post-nursing training is 18 months. In most countries, however, registered midwives undergo professional midwifery training which lasts between three to five years, depending on the level of training. In many countries an individual first have to be trained as a nurse before being trained as a midwife. Alternatively, midwifery as a subject is incorporated into nursing training (Sherratt and Tjallinks 2006:945-974).

In Kenya the training is comprehensive and includes general nursing, midwifery and community health nursing. The requirements for admission depend on the level at which the midwife is being trained; whether it is at a technical or graduate level (Fullerton *et al.* 2010: Online). A minimum requirement for midwifery training is attainment of secondary education (ICM 2010: Online).

Midwifery is a practical profession where practice is learned by evidence, scientific principles, knowledge and sound practical application. The skills required for practicing as a midwife may vary from country to country, depending on the specific needs of such a country (Sherratt and Tjallinks 2006:957-959)**.** Core competencies that a midwife must possess are the provision of safe maternal and neonatal services during the antenatal, labour and postnatal period, a positive attitude, critical thinking and good communication skills (Halldorsdorsdottir and Karlsdottir 2011:806-817; Tanner 2006:204-211). To support the family during the antenatal, labour and postnatal period is part of the training and scope of midwives.

The training of midwives cover three domains of learning, namely cognitive, affective and psychomotor in order to enable them to reach the competency level required for midwifery practice. For midwifes to offer quality and woman-centred care, they need to be well trained and equipped with higher-order cognitive skills such as decision making, critical thinking and clinical judgement. They should also possessed positive attitudes to function as competent practitioners and be driven by strong ethics (Fleming & Holmes 2005: Online; UNFPA 2007a: Online).

Midwives should strive to provide evidence-based and individualised care to mothers and their babies. It has been documented that the evidence-based care provided by midwives has reduced the number of women requiring induction or augmentation of labour, the degree of perineal tears and caused an increase in the number of mothers choosing to breast feed their babies (American College of Nurse Midwives 2011: Online). The care should be delivered in a sensitive and caring manner with the aim of assisting mothers to recover from the effects of childbirth and adjust to their new responsibilities (Kaye-Petersen 2004:1,3,6). The care provided, should be woman-centred and give the women a sense of being in control of their birth giving experience (Brown, Davey and Bruinsma 2005:109-126).

➲ **Utilisation of midwives**

The utilisation of personnel is an integral part of human resources that deserves great attention in healthcare delivery. In Africa, on average, there are 13.8 midwives for every 10 000 patients. This is a major hazard for women who are at risk of developing delivery-related complications (WHO 2010b: Online). The Kenya Nursing Council as the licensing body for nurses and midwives recommends a ratio of one midwife to five patients. The real situation, however, is very dire with one midwife caring for over 20 postnatal mothers and their neonates (Nursing Council of Kenya 2012:15).

However, appropriate utilisation entails more than just the number of midwives on duty. Getting the right people in the right place at the right time, is crucial for the improvement

of maternal and neonatal care services (Sandall *et al.* 2011: Online). Education, experience, skill mix and leadership qualities have an enormous impact on the quality of care delivery. Midwives are trained to provide reproductive care as an independent and interdependent practitioner in the maternity care team. They gain experience in a variety of settings such as hospitals, clinics, health units and domiciliary conditions (An Bord Altranais 2010: Online). The multidisciplinary or multi-professional approach where midwives collaborate with other healthcare providers to meet the needs of the postnatal mother, her baby and the family, add to their experience. When placed, the midwife's areas of interest and expertise, the antenatal, labour and postnatal wards, is also considered. Considering leadership qualities, midwives play a critical role in matters of safe motherhood and in areas of administration, management and research (WHO 2011c: Online). Lastly, the midwife acts as an advocate and coordinates all the care required by the mother and her baby.

The effective utilisation of midwives contributes more to the quality of maternity care than the number of midwives (Sandall *et al.* 2011: Online). It prevents understaffing which has been identified as the greatest hindrance to the utilisation of maternal care services, including postnatal care for the mothers (Tao, Huang, Long, Tolhurst and Raven 2011:707-717). Improved staffing ensures better health outcomes for the patient. Additionally, adequate staffing increases job satisfaction among midwives, reduces absenteeism, and encourages retention. Improved staffing further benefits the hospital and healthcare delivery system by reducing patients' length of stay thus lowering costs incurred by the hospital (Sandall, Homer, Sadler, Rudisill, Bourgeault, Bewley, Welson, Cowie, Cooper and Curry 2011: Online).

The ineffective utilisation of midwives has several disadvantages. There is a close correlation between inappropriate staffing levels and increased rates of unwanted patient/client outcomes (Chodzaza and Bultemeier 2010:57-61; Ellis, Priest, MacPhee and McCutcheon 2006: Online). Inappropriate utilisation of midwives also results in negative effects such as low efficiency and quality of services provided by midwives (Tao, Huang, Long, Tolhurst and Raven 2011: 707-715; Daher *et al.* 2008: Online;

Kyomhendo 2003:16-22). Apart from the shortage of midwives who have been hired to provide postnatal care, poor distribution of the available midwives in other areas of the hospitals, has impacted negatively on the quality of care provided to the postnatal mothers (Wakaba, Mbindyo and English 2014: Online). A study done by Rayner, McLachlan, Forster, Peters and Yelland (2010) on postnatal care, reported that mothers were of the opinion that when midwives were few and busy, they were unable to provide individualised postnatal care.

2.3.2 MATERIAL RESOURCES (INPUT)

Material resources in this study entail the equipment and supplies available for the provision of postnatal care. These material resources are key inputs in the delivery of healthcare to postnatal mothers and may influence utilisation of services as the midwives require these resources to provide quality care (Kabene *et al.* 2006:1-17).

2.3.2.1 Equipment and supplies

An efficient healthcare facility should have the needed equipment and supplies to ensure optimal care delivery by healthcare practitioners. Mothers turned away from healthcare facilities due to limited equipment or supplies get discouraged and put off others from seeking medical assistance from healthcare facilities (Mrisho, Schellenberg, Mushi, Obrist, Mshinda, Tanner and Schellenberg 2007; Nabukera, Witte, Muchunguzi, Bajunirwe, Batwala, Muloqo, Farr, Barry and Salihu 2006: Online).

2.3.2.1.1 Medicine or essential drugs

For any category of health care practitioner to be able to provide quality health care, the healthcare delivery system needs to guarantee that all essential drugs or medicine are available at the healthcare delivery points (Islam 2007: Online). It is the vision of the WHO that people worldwide should have access to essential medicines at all times. Medicine should also be made available in adequate amounts (WHO 2012: Online).

According to healthcare customers, the availability of medicine is usually cited as the most important element of quality. The WHO (2012: Online) estimates that a third of the world's population lacks access to essential medicine due to inefficiency pharmaceutical supply management and poor distribution, as well as the cost of the medicine (Islam 2007: Online).

Health care systems devoted to the provision of postnatal care need to develop strategies to ensure an efficient supply of essential drugs and other consumable materials to treat clients/patients. A major determinant in ensuring this in any healthcare delivery system, is the proper allocation of financial resources (WHO 200a: Online).

The researcher considered essential drugs as antibiotics, emergency obstetric drugs, and drugs for general emergency care as well as drugs indicated on the Essential Drug List (refer Appendix II).

2.3.3 PHYSICAL RESOURCES (INPUT)

Physical resources refer to the healthcare facilities that the mothers visit to receive postnatal care (refer to Diagram1.1). The availability and distribution of these facilities and the impact on the utilisation of health care, is discussed below.

2.3.3.1 Healthcare facilities

The availability of healthcare facilities increase the utilisation of healthcare services by postnatal mothers (WHO 2010a: Online). Adequate and equitable distribution of healthcare facilities is critical to the utilisation of healthcare (Awoyemi, Obayelu and Opaluwa 2011:1-9). In Sri Lanka the number and location of healthcare facilities and a good road network have led to an increased utilisation of maternal care services (Fernando, Vidya, Rajapakse, Dangolla and Melnik 2003: Online).

The distance to as well as a lack of transport to the healthcare facility have been identified as important factors contributing to not attending postnatal care. Mothers who live more than five kilometres from the facility, are less likely to utilise the services available at those facilities (Nakwanga 2004: Online). Long distances that women have to walk the cost of paying money for transport to healthcare facilities, may further hamper attendance of healthcare facilities (Hazemba and Siziya 2009: Online; Titaley *et al.* 2009:500-508; Ibnouf, Van den Borne and Maarse 2007:737-743). Having identified availability of and accessibility to healthcare facilities as major determinants of utilising postnatal care, the availability of equipment and supplies at the healthcare facilities have further been shown to influence the utilisation of services.

2.3.4 FISCAL RESOURCES (INPUT)

Fiscal resources in this study refer to the financial resources required for funding activities of maternal care services, including postnatal care. The Ministry of Health at national level and the Department of Health at county level are responsible for funding and coordinating all health related financial activities, including non-governmental organisations (WHO 2013a: Online). The Kenyan Ministry of Health is crossly under-funded, therefore, unable to deliver expected as needed in this country (UNFA 2010b: Online).

The health sector expenditure accounts for only 9% of the total government expenditure which constitutes 1.7 per capita of the Kenyan GDP and USD 10.9 per capita. According to recommendations by the WHO that the LMICs should spend an average of USD 34 per capita on health care, the level of funding by the Kenyan government is inadequate to meet this requirements. Furthermore, this funding is way below the Abuja Declaration by the African Heads of States which targeted the expenditure at 15% in the year 2000 (Service Provision Assessment,2010: 26; Ministry of Public Health and Sanitation 2009: 61; Ministry of Public Health and Sanitation 2008: 72-73).

Many of the countries, Kenya included, have made little or no progress at all towards increasing the budgetary allocation to health (Smart Global Health 2010: Online). With the implementation of the county system of government in Kenya, every county is received money from the National government and is entrusted to allocate funds to relevant ministries, including health.

In Kenya insufficient financial resources are responsible for the frequent shortages of basic and essential supplies common in public health care facilities. The multiple times that essential commodities were out of stock in reproductive health units had contributed to the underutilisation of maternal care services, including postnatal care (Ministry of Public Health and Sanitation & Ministry of Medical Services, Kenya 2009:9).

Sufficient allocation of financial resources both on central and county governmental levels, would facilitate the recruitment and deployment of midwives and other healthcare providers. Sufficient financial resources are critical in availing the necessary supplies and equipment for use in the provision of postnatal care (Ministry of Public Health and Sanitation 2009:61).

2.3.5 MANAGERIAL RESOURCES (INPUT)

In this study, managerial resources are identified as important inputs and will be discussed under policies, procedures and protocols, supportive supervision structures, and performance appraisal. Managerial resources are required for the improvement and effectiveness of postnatal care at all levels of service delivery (Ministry of Public Health and Sanitation & Ministry of Medical Services, Kenya 2009:8).

2.3.5.1 Policies: Guidelines, procedures and protocols for the provision of postnatal care

Policies and guidelines and protocols are key elements in the improvement of service delivery (WHO 2014: Online). Policies are the general statements regarding provision of

services such as postnatal care that aid in decision making. Guidelines are the recommendations or best practice options that enhance and support provision of services.

Procedures and protocols are the step-by-step written instructions to be followed when providing specific services. Policies, procedures and protocols aid in the provision of consistent practice and encourage health care providers, such as the midwives, to offer services within their scope of practice (Australian Government National Health and Medical Research Council 2010: Online). An example of a protocol or a procedure, is the 'management of an unconscious patient after delivery' which entails: call for help; position the woman on her left side; assess the airway and breathing, assess circulation; insert an intravenous line; determine the level of consciousness and determine the possible cause of reduced level of consciousness (Ministry of Public health and Sanitation and Ministry of Medical Services 2012:275).

The WHO has developed guidelines and manuals to support countries in developing their own guidelines and policies for use in the provision of standardized maternal care services (WHO 2009: Online). The Division of Reproductive Health (DRH) in Kenya is responsible for the development of National policies and guidelines that lay down the foundation on how services should be rendered. The policies and guidelines should be updated regularly in order to incorporate new empirical evidence (Beksinka *et al.* 2006: Online).

Lack of policies on provision of postnatal care has been cited as a contributing factor to insufficient postnatal care delivery (Mrisho *et al.* 2006: Online). Standards of care should be developed and clinical audits undertaken to evaluate the level of care being provided to mothers and their new-borns (Bernis *et al.* 2003: Online). The Kenyan Ministry of Public Health and Sanitation, through the DRH, has come up with a number of policies, strategies, guidelines and tools aimed at strengthening the maternal, neonatal and child health programme. These documents include, among others, the: National Reproductive Health policy; National Reproductive Health Strategy and the

Child Survival and Development Strategy (DRH Kenya 2012: Online). These documents should be available and accessible to all midwives as a reference for the provision of quality postnatal care. DRH, together with health departments in the counties, should oversee the implementation of these guidelines aimed at improving quality postnatal care. Implementation of the guidelines would be facilitated more efficiently by supportive supervision.

2.3.5.2 Supportive supervision (Input)

Supportive supervision is the cultivation and maintenance of a harmonious working relationship with the aim of improving the morale of the worker and enhancing job satisfaction (Smith 2012: Online). Supportive supervision uses a practical system of objective measures to foster improvement of performance in procedures, personal interaction and management of healthcare activities (Management Science for Health 2006: Online). In supportive supervision, the supervisor renders care in collaboration with the supervisee, identifying problems and planning solutions. Provision of quality care is enhanced when supportive supervision is practiced on all levels in the healthcare system (Pembe, Urassa, Carlstedt, Lindmark, Nystrom and Darj 2010: Online).

Supportive supervision, targeting postnatal care in the Kenyan healthcare delivery system, is one of the maternal and new-born health pillars (Kenya Ministry of Public Health and Sanitation and Ministry of Medical services 2012:15). Officers from DRH supervise the Provincial Reproductive Health Coordinators who are responsible for the supervision of the District Reproductive Health Coordinators. The District Reproductive Health Coordinators are responsible for the supervision of all the Safe Motherhood programmes in their respective Districts (DRH 2012: Online). Supportive supervision in postnatal care ensures that quality services are rendered in hospitals, clinics or the community where postnatal mothers and their babies are managed (WHO 2010b: Online).

Supportive supervision differs from the traditional supervision approach where the emphasis was on inspecting facilities, e.g. postnatal wards or maternity units, as well as individual performance of personnel allocated to those units. Supervising individual performance may help managers to correct mistakes or to recognise and reward outstanding performances. However, individual supervisory visits were used to blame individual workers for inefficiencies that were the result of systems failure (National Aids Control Programme 2010: Online). In modern innovative supervision, clear supervisory strategies and procedures are defined at the onset of any programme, outlining the goals of supervision (Human Resource for Health Knowledge Hub 2011: Online).

Supervisors are properly trained and standardised tools are developed to assist with supervision in order to improve the quality of postnatal care on all levels of healthcare delivery (Management Science for Health 2006: Online). For a supervisory system such as that of postnatal care to be effective, the DRH must develop a team approach to supervision where problem solving is the main focus of interaction and the supervisor becomes on-the-job-teacher. The focus is to support the nursing personnel to improve the delivery of postnatal care (Management Science for Health 2006: Online).

Supportive supervision is implemented by the Kenyan Ministry of Health under the Community Health Strategy where every healthcare facility appoints some healthcare providers, including nurses/midwives, to cooperate with the CHWs. These healthcare providers who are in possession of a basic diploma in nursing/midwifery or a diploma in public health care, are also trained to commence supervisory roles in their respective communities. Supervision of maternal care services, starts at the Division of Reproductive Health Headquarters. Healthcare providers from headquarters supervise the provision of maternal services, which include postnatal care, at the provincial level. The healthcare providers at the provincial level headquarters supervise the health care providers at the district level headquarters. Those healthcare providers from the district level headquarters supervise all the maternal care activities in all the facilities within their district. Nurse/midwives from the health care facilities, as well as the public health officers now supervise the community health workers. These healthcare professionals

train the CHWs in all aspects of health care, including maternal and neonatal healthcare services. CHWs offer the basic healthcare services on community level, e.g. health education that is referred to as Level 1 Service Delivery Point in the Kenyan health system.

The healthcare providers, known as Community Health Extension Workers (CHEWs), are the supervisors of all community health activities in their respective communities. (Ministry of Public Health and Sanitation and Ministry of Medical Services 2010:17). Health providers, including midwives, should practice supportive supervision which has been shown to improve the quality of care, while cooperating with community health workers in programmes that address issues related to maternal and neonatal/child health in their postnatal period.

It has further been acknowledged that the success of CHWs rely on regular and reliable supportive supervision. Regular supervisory visits also keep the CHWs accountable for delivery of services (WHO 2007: Online). Supportive supervision is a team-building process that results in improved quality of care, client satisfaction, and the morale of healthcare workers (Management Science for Health 2006: Online). Midwife supervisors should endeavour in a teamwork approach with the supervisees with the aim of improving postnatal care in Kenya.

2.3.5.3 Inter-professional collaboration and teamwork

Inter-professional collaboration is the interaction of two or more healthcare professionals working together to provide care for patients or clients (Bridges, Davidson, Odegard, Maki and Tomkowiak 2011:1). Teamwork is defined as the provision of comprehensive health services to individuals, groups, families, and/or their communities by at least two healthcare providers who work collaboratively along with patients, family caregivers and community service providers. This teamwork focuses on shared goals within and across settings to achieve safe, effective, patient-centred, timely, efficient and equitable care delivery (Mitchell, Flin, Yule, Mitchell, Coutts and Youngson

2012:201-211; Mitchell 2010: 2719-2732). In postnatal care, inter-professional collaboration incorporates all professionals who are responsible for care rendering to the mother, her new born baby and the family. The inter-professional team includes the midwife, obstetrician, laboratory technician, social worker and administrators (Midwifery 2020 Programme 2010: Online).

The skill of developing healthcare teams requires attention on how members of the team will work together. A functional healthcare team must have clear goals with measurable outcomes as well as well-structured clinical and administrative systems. Division of labour, well trained team members and effective communication systems are equally critical for effective teamwork (Mitchell *et al.* 2012:201-211). Improved teamwork and collaborative care have been shown to enhance performance in many aspects of the healthcare system, including training, primary healthcare and public health practice. Effective teamwork is expected to improve the provision of postnatal care (Mitchell *et al.* 2012:211-211).

Reports on health and human resources have suggested that teamwork might be an effective way of improving quality care, patient safety and also to reducing staff shortages, stress and burnout which are the major problems among healthcare providers (Clements, Dault and Priest 2007:26-34). Research reports further show that teamwork can significantly reduce workloads, increase job satisfaction and retention, improve patient satisfaction on care provided, and reduce morbidity and mortality (Olupeliyawa, Balasoooriya and Hughes 2009: 61-72). A lack of teamwork among nursing and/or midwifery personnel has been known to negatively affect delivery of care. In the structure of a typical patient care unit, barriers that inhibit teamwork, include large team size, lack of familiarity, instability of the workforce and assignments, absence of a common purpose and destiny and an inhibiting physical environment (Kalisch and Begeny 2005:550-556). These barriers are often encountered in the Kenyan health sector.

To ensure effective teamwork, healthcare professional should place the patient at the centre of all planned activities and ensure that patients or clients understand their own role in the multi-disciplinary team. Postnatal mothers should be helped to understand, from the team's inception, their responsibility to interact with the care team and take part in the management of their own care and well-being to can order to achieve the best possible health outcomes for themselves and their babies (Mitchell *et al.* 2012:201-211).

Health professionals need to continuously develop their clinical skills and competencies essential for collaborative work and practice. Professional regulatory organisations should therefore focus on team-based competencies in their respective fields. Members of the care teams should utilise leadership skills to improve the structure and culture of their organisations in order to strengthen team-based care that is crucial to all care activities, including the supervisory role of the midwives (Midwifery 2020: *Delivering expectations* 2010:18).

2.3.5.4 Performance Appraisal

Performance appraisal is a form of employee assessment with regard to performance in terms of quality service delivery (Jawahar 2010:494-526). For this process to yield useful results, performance appraisal should be conducted in a professional manner (Ellis 2008: 28-33). For any organisation and the employees to be aware of the current state of affairs and what should be changed and improved, the results of performance appraisal are very important (Jawahar 2010:494,526). Evaluation tools need to be properly designed to ensure that an employee, the midwife, is evaluated on knowledge, skills and attitudes that are relevant to the particular post or position (Bentley and Dandy-Hughes 2010:553-560). Appraisal of performance is important in every discipline, but in the healthcare sector it is not properly done or implemented due to several reasons (Nursing times.net 2008: Online).

Regular performance appraisal of personnel, such as nurses/midwives, is beneficial to the midwives themselves, the managers/supervisors and the hospital as an institution

(Armstrong 2005: Online). Personnel assessment has been shown to raise the standards of midwifery practice in some countries (Australian Nursing and Midwifery Federation 2013: Online). Results of performance appraisals will guide managers towards improving on service provision in healthcare facilities (Chandra and Frank 2004: Online).

Evaluation of performance should be conducted objectively using guidelines of a standardize evaluation tool for all the healthcare providers being evaluated at a given time (Nursing times.net 2008: Online). The most important process of improving performance is not the set of goals or orders that personnel should achieve, but improved relationships. Better relationships in a work environment bring about a sense of belonging in the organisation or department, such as the postnatal unit, which has been shown to foster improved performance (Nursing times.net 2008: Online). The manager responsible for appraisal should however know the limit of performance of every personnel member. Those identified as outstanding performers, should be recognise and rewarded to motivate them to sustain this kind of behaviour (Heathfield 2012: Online).

Nursing and Midwifery councils in many countries, Kenya included, usually assess the performance of Nurses and Midwives to enable them obtain and/or retain their practicing licence (Nursing Council of Kenya 2012: Online; Australian Nursing and Midwifery Council 2010: Online). The evaluation tool must first be piloted to test if it enables reliable assessment of the knowledge, skills and attitudinal competence for the appraisal (Bentley and Dandy-Hughes 2010: Online).

An important aspect of formal performance appraisal is the provision of a clear performance based feedback to employees (Jawahar 2010:494-526). Such feedback is believed to influence future performance. Negative feedback that may be traumatic to the employee, e.g. when s/he needs to improve in certain areas, should be given in a compassionate manner (Ellis 2008:28-33). It is critical to recognise and properly manage poor performance for the benefit of both the organisation and the employee

(Ellis 2008: 28-33). In Kenya, assessment of healthcare providers, including midwives, is done annually with that of all other public servants (Obongo 2009:66-82). Feedback after assessment is given to individual midwives with the aim of improving on the quality of postnatal care services. In addition to the inputs discussed beforehand, utilisation of postnatal care may further be influenced by client related factors.

2.4 MATERNAL FACTORS ASSOCIATED WITH UTILISATION OF POSTNATAL CARE

Client/patient-related factors that have been identified to influence the utilisation of postnatal care, are: lack of knowledge; antenatal care attendance; lack of finance; age of the mother; educational level; lack of male involvement; religious and cultural beliefs.

2.4.1 KNOWLEDGE

A lack of knowledge regarding the importance or benefits of postnatal care among mothers, their family and the community, has been reported as one of the reasons for non-utilisation of postnatal care (Daher *et al.* 2008: Online; Jammah *et al.* 2011: Online). Mothers and their families may also be unaware of the availability of postnatal care. Mothers often disregard postnatal care and when complications arise, cause financial and social strain to the family and the government.

Already during antenatal clinic visits midwives/nurses need to sensitise mothers and their families on the importance of postnatal care when giving antenatal health talks. During such health education sessions, mothers should be encouraged to also seek postnatal services after delivery. Compared to the attendance to postnatal care, antenatal care is better attended in most developing countries, including Kenya - 92% antenatal care attendance compared to 37% postnatal care attendance (Ebony *et al.* 2010:113-125). Midwives should utilise the high antenatal care attendance to educate pregnant women on the importance of postnatal care.

2.4.2 ANTENATAL CARE ATTENDANCE

Although 92% of pregnant woman in Kenya attend at least one antenatal visit during pregnancy, only 37% of them seek postnatal care (Ebony *et al.* 2010:113-125). The Kenyan situation is different from what has been reported in other countries where the antenatal attendance is a predictor of the postnatal care attendance (Nanchang 2004: Online; Dhakal *et al.* 2007: Online; Iqbal Anwar, Killewo, Chowdhury and Dasgupta 2004: Online). A positive encounter with healthcare providers during the antenatal period may create a sense of trust and confidence in the care providers that leads them to seek postnatal care amidst other challenges (Yakong Rush, Bassett-Smith, Joan, and Bottorff and Robinson 2010: 2431-2441).

2.4.3 FINANCE

Financial resources have a great influence on a family's health seeking behaviour (Negussle and Chepngeno 2005:240-245). According to some authors, a lack of finance is the predominant factor affecting the utilisation of maternal health services, especially postnatal care (Titaley *et al.* 2010: Online; Sakala *et al.* 2011: Online). The most recent National Demographic and Health Survey indicates that women in the lowest wealth sector are twice as likely not to utilise postnatal care as those in the highest sector (Obonyo, Miheso and Wamae 2010:124).

The greater part of pregnant women perceive that the cost of postnatal care outweighs its benefits. In most developing countries, healthcare services, such as maternal services, are not completely free (Titaley *et al.* 2010: Online). In most Kenyan hospitals, registration cards, syringes and needles, gloves and some other supplies are paid for by clients/patients regardless of the fact that government policy indicates that it should be offered free.

During the postnatal period, mothers resort to traditional birth attendance and medicine due to financial constraints (Titaley *et al.* 2010: Online). Zhao, Isaac, Shian-Jiann and

Gabriel (2009: Online) have further argued that low socio-economic status affects the attitude and values of women. Poverty leads to a lack of education which in turn implies limited knowledge on the availability of healthcare services, including maternal care services (Some, Sombie and Meda 2011: Online). Apart from the above mentioned factors, young maternal age has been found to significantly influence attendance of postnatal care (Sakala *et al.* 2011: 113-136**)**.

2.4.4 AGE OF THE MOTHER

Maternal age at the time of giving birth to a first born is an important predictor of utilising maternal care services (Pandey, Lama and Lee 2012:554-573). The younger the prospective mother, the less likely it become that she will utilises maternal care services, including postnatal care (Pandey, Lama and Lee 2012: 554-573; Sakala *et al.* 2011:113-136). In the LMICs, one in three women give birth before the age of twenty. This situation negatively impact on their health, education and future life prospects (UN 2005: Online). Young mothers, compared to older mothers, have a tendency not to make use of postnatal care services. This reflects that older women may have an increased awareness of the benefits of these services.

The maternal age of women is a critical factor in the utilisation of maternal health services, especially postnatal care (Sein 2012: 1021-1030). In an effort to increase the attendance of these services, governments of LMICs, including Kenya, should intensify efforts to increase the age at which women become pregnant/mothers. According to Ochako, Fotso, Ikamari and Khasakhala (2011: Online), a large proportion of young women seek care from traditional birth attendants rather than competent providers.

2.4.5 EDUCATIONAL LEVEL OF THE MOTHERS

The educational level of the mother has been exposed as another factor that influence attendance of postnatal care. Fifty-four percent of women with secondary school education were more likely seek postnatal care within 42 days of childbirth, compared to

29% of women with no education (Sakala and Kazembe 2011:113-136; Geller, Irwin, Carey and Ronald 2009:1186-1202; El-Gilany, Amr and Hammad 2008:442-448).

Education is likely to enhance female autonomy and help women develop greater confidence and the capability to make decisions about their health and that of their babies. It is also likely that well-educated women will seek quality services, since they are well informed and are aware of the benefits of such services. Education is positively associated with employment. Working women have better financial resources and thus will access postnatal care (Pandey, Lama and Lee 2012:554-573).

A study done in Uganda (Nakwanga 2004: Online) showed that rural women, who are less educated, are not exposed to health information, e.g. the importance of postnatal care, due to restricted social networks. Similar findings were reported in a Kenyan study where rural women with lower levels of education were less likely to utilise maternal care services, including postnatal care (Ochako, Fotso, Ikamari and Khasakhala 2011: Online). Training information aiming to increase the utilisation of maternal health services should therefore invest in female education.

2.4.6 MALE INVOLVEMENT

A lack of male involvement in maternal and child health negatively affects utilisation of postnatal care (Kulunga, Sundby, Malata and Chirwa 2011: Online). When male partners are involved in antenatal care visits of the pregnant women, they become aware of the equal benefits of postnatal care and are more likely to support them in attending these services (Mangeni, Mwangi, Mbugua and Mukthar 2013: Online).

Men around the world have been known to play a critical role in women's ability to seek healthcare, but in most cases men remain uninformed of the women's reproductive health needs or their own (Greene, Manisha, Puherwitz, Dierdre, Akinrinola and Susheela 2003: Online). An urgent need exists for healthcare delivery systems to develop programmes aimed at improving male involvement in maternal healthcare

services. Male involvement will not only increase utilisation of services such as postnatal care, but also emphasise men's shared responsibility and promote their active involvement in reproductive health (Kululanga, Sundby, Chwira, Mulata and Maluwa 2012:1-10).

2.4.7 RELIGIOUS AND CULTURAL BELIEFS

Religious and cultural beliefs are additional factors that influence the utilisation of maternal healthcare services, including postnatal care. Midwives and other healthcare providers should be aware of these beliefs, because it may influence the utilisation of postnatal care (Bleakney 2010: Online). Some mothers are culturally not allowed to leave their homes during the first few days or weeks after childbirth (Shaikh and Hatcher 2005: 49-54). In such situations, these mothers receive postnatal care only when visited by a midwife at home. These religious and cultural beliefs may hinder male midwives from offering postnatal care to certain categories of women. The Kenyan Ministry of Health, being aware of above discussed client-related factors, should involve all stakeholders in formulating and implementing strategies and policies aimed at improving the utilisation of postnatal care.

2.5 SUMMARY

The literature review assisted the researcher in the development of the questionnaire and the checklist. To determine the current status of postnatal care in Kenya, these two instruments were required as data collection tools (Study Phase 1). In chapter 3 the two steps followed to gather data, are described. Step 1 is about data collection from midwives using the questionnaire and in step 2 the checklist was used to audit selected hospitals.

Refer Table 3.1 for the layout that was followed in Chapter 3.

CHAPTER THREE

PHASE 1: RESEARCH METHODOLOGY

3.1 OVERVIEW

Chapter 3 presents an in-depth description of the data collection procedure in order to address the first objective of the study, namely to determine the current state of postnatal care in Kenya (Study Phase 1). The study research design, sampling techniques, data collection instruments and data analysis techniques are discussed (refer Table 3.1).

Table 3.1 Thesis Layout

CHAPTER	DESCRIPTION OF CHAPTER CONTENT	PURPOSE
Chapter 1	OVERVIEW OF THE STUDY	
Chapter 2	LITERATURE REVIEW	Questionnaire development Checklist development
Chapter 3 	PHASE 1 Methodology Research results Discussion of results	<u>Step 1</u>: Data gathering from midwives using a questionnaire <u>Step 2</u>: Audit of selected hospitals using a checklist

3.2 RESEARCH DESIGN

A design is a blue print for conducting a study. It clearly defines the structures within which the study is implemented and practise to maximise control over factors that could interfere with the validity of the findings (Brink; Van der Walt and Van Rensburg 2006:92; Burns and Grove 2005:211).

The research study was done in three phases. In phase 1 a descriptive survey design was adopted to describe the state of postnatal care observed in Kenyan hospitals because this design describes what exists on the ground and may reveal new facts in the area of study (Botma, Greeff, Mulaudzi & Wright, 2010:110). In phase 2 (described in chapter 4), the researcher used Health Systems Research (HSR) among the Provincial and National Reproductive Health Coordinators in identifying the strategies that could be used in improving the quality of postnatal care and to develop a Framework for implementation. HSR is concerned with improving the health of people and communities by enhancing the efficiency and effectiveness of the healthcare system. It is a participatory, action-oriented form of research that ensures the relevancy and appropriateness of research by focusing on priority problem areas in healthcare (International Development Research Centre 2003: Online). HSR has proved to be appropriate in the development of a Frameworks to improve the quality of service delivery (Barron, Buthelezi, Edwards, Makhanya and Palmer 1997:4-5). The adoption of HSR allowed the researcher to offer policy options to National and Provincial Reproductive Health Coordinators and assist them in making decisions regarding the solutions of problems facing the provision of postnatal care. This was done by developing a Framework in phase 3 geared towards improving postnatal care (described in Chapter 5). The reproductive National and Provincial Health Coordinators were involved in the development of the Framework from the initial stages to the completion, thus making them active stakeholders.

3.3 STUDY POPULATION

A study population refers to the group of people or study subjects who are similar in one or more ways and which form the subject of a particular study (Polit and Beck 2006:259; Burns and Grove 2005:746). The study population in phase 1 included all midwives allocated to all hospitals in Kenya.

3.4 SAMPLING

A sample is defined as the subset of a particular population that is selected for a study (Burns & Grove 2005:40; Roussouw 2005:114-115). Sampling refers to the process of selecting a portion of the population to represent the target population while conducting a research study (Burns and Grove 2005:341; Mugenda and Mugenda 2003:44-52).

3.4.1 HOSPITALS

The sampled hospitals were referral, provincial and district hospitals. It were selected from a group of facilities which consisted of two referral hospitals, seven provincial hospitals and 100 district hospitals as in July 2010 (Unpublished report, Ministry of Health Kenya 2010). To determine the hospitals to use in the study, a multistage stratified sampling technique was used. Stratified and random sampling techniques aided in achieving representation from these three groups of hospitals. To include the exact amount of hospitals per province in the study, proportionate random sampling was used. One of the two referral hospitals, four of the seven provincial hospitals and 50% of the district hospitals from the sampled provinces, were randomly selected for the study. A total of 37 hospitals were sampled. Table 3.2 illustrates the number of hospitals and midwives that were sampled for data collection and analysis.

Table 3.2 Number of hospitals and midwives per category of hospital

HOSPITAL CATEGORY	NO. OF HOSPITALS	NO. OF MIDWIVES	%
Referral	**1**	**13**	**5**
Provincial	**4**	**24**	**9**
District	**32**	**221**	**86**
Total	**37**	**258**	**100**

The names of the two referral hospitals were written on two equal small pieces of paper, folded equally and placed in a container. The researcher picked one of the pieces of paper at random which indicated the Moi Teaching and Referral Hospital. This hospital was then chosen as the referral hospital for the study. Names of all the seven provincial hospitals were written on equal pieces of paper and the same procedure as above was used. The four provincial hospitals namely the Rift valley, the Western, Central and Coast provincial hospitals were picked and used as the provincial hospitals for this study. On a visit of the above provincial hospitals, the researcher was provided with a list of all the district hospitals in the province. Names of all the district hospitals were written down and using the same procedure as above-mentioned, 50% of the district hospitals in the respective provinces were randomly picked and used for the study.

3.4.2 MIDWIVES

According to the Kenyan Ministry of Health (unpublished report 2010), there were 1,165 midwives working in the maternity units of the referral, provincial and district hospitals. A majority of these midwives were deployed in the district hospitals, with each district hospital having at least 10 midwives, each provincial hospital an average of 15 midwives and 30 midwives in each of the referral hospitals. Since the population which was being studied was less than 10 000, the required sample size was calculated using the Fisher formula based on the proportion of mothers who do not receive postnatal care.

The formula is as follows:

Formula

$n = Z^2pq/d^2$

Where:

n= Desired sample size (if target population is known)

Z= Standard normal deviation at the required confidence interval

P= Proportion in the target population estimated to have characteristics to be measured

q= 1-p

d= Level of precision set at 0.05

N= 1165 Midwives working at the postnatal unit in the district, provincial and referral hospital

P= 0.7 (proportion of women not receiving postnatal care)

Q= 1-P

Z= 1.96

d= 0.05

Thus:

n1 $= 1.96^2 \times 0.7 \times 0.3/0.05^2$

$= 0.806736/0.0025$

$= 322.7$

$= 323$

To calculate the actual sample to be studied (n2), the following formula was used since the study population was less than 10,000 (Mugenda and Mugenda 2003:44):

n2 = n1/1+1/1165(n1-1)

= 323/1+1/1165 (323-1)

=323/1+0.0008583×322

=323/1+0.28

=323/1.28

=252.3

=253 midwives

Distribution of the sampled midwives was as follows:

Referral hospitals: 60/1165×253 = 13

Provincial hospitals: 105/1165×253 = 24

District hospitals: 1000/1165×253 = 221.

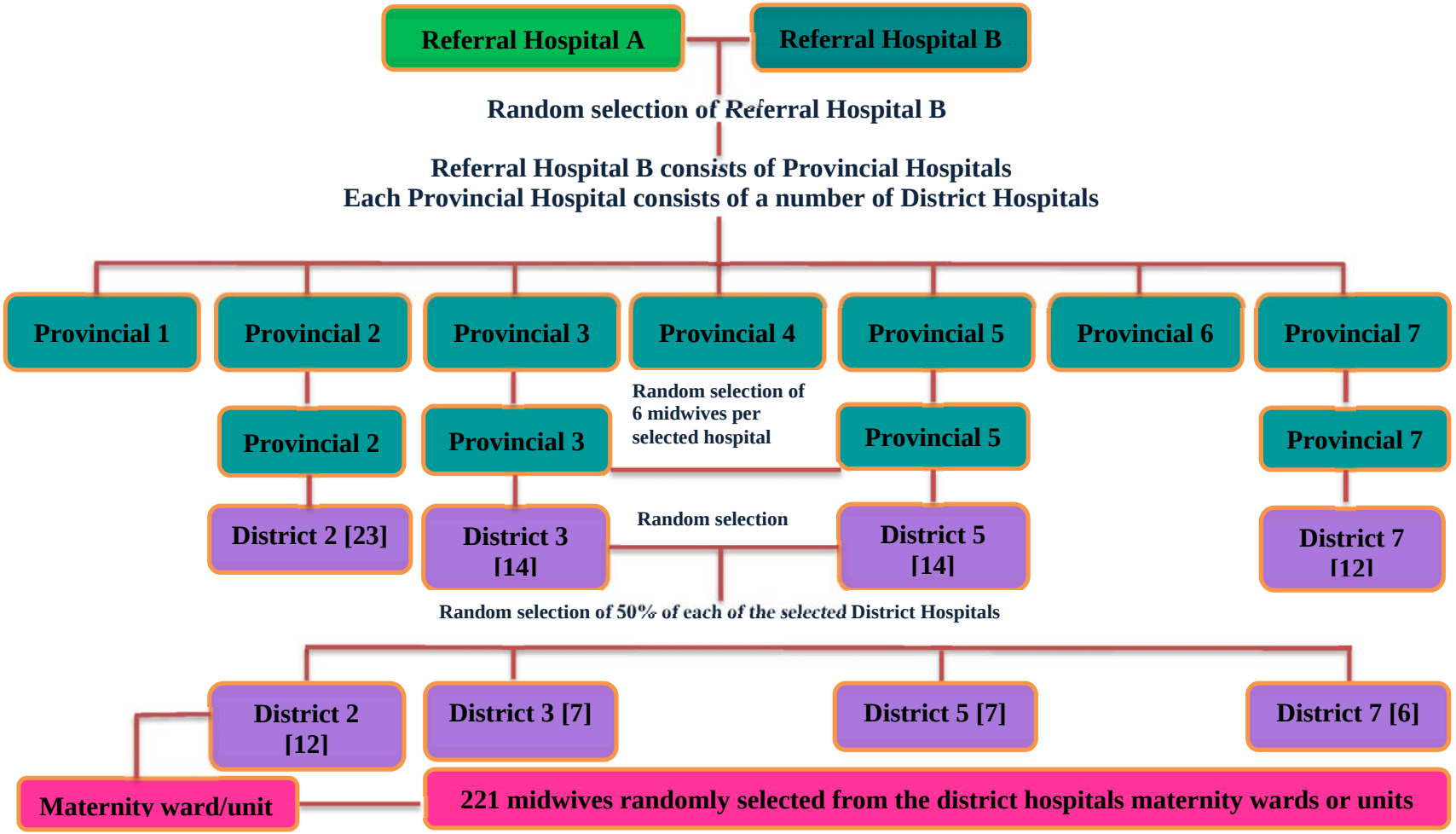
The number of the midwives who participated in the study was 258 as the 253 midwives could not be divided adequately among the hospitals which were used for the study

At the Moi Teaching and Referral Hospital thirteen midwives, from the postnatal unit, were randomly selected to participate in the study. From each of the four provincial hospitals six midwives were randomly selected to make a total of twenty-four midwives. Fifty percent of the district hospitals from the sampled provinces were included in the study with twelve hospitals from the Rift Valley Province, seven hospitals from Western and Coast provinces and six hospitals from the Central province. A total of 221 midwives from these district hospitals were randomly selected to participate in the study.

3.5 INCLUSION CRITERIA

Inclusion criteria are those characteristics that a subject or element must possess to be part of the target population or a sample (Burns and Grove 2005:234). In Phase 1 of this study, the selected provincial and district hospitals were included, because these are the hospitals where a majority of Kenyan women attended maternal health services. Only midwives, who had been working in the maternity units of these selected hospitals for at least six months, were included in the study. The reason for this is that these midwifes were deemed to have gained significant insight with regard to the department and were familiar with the factors that contribute to the quality of care being provided.

Diagram 3.1 Sampling structure



All the maternity wards or units in District Hospital 2, 3, 5 and 7 were selected
According to the statistical calculations a specific number of midwives per selected hospital were to be included in the study. Convenient sampling was done in each hospital's maternity ward or unit. The calculated number was considered throughout the sampling process.

3.6 PILOT STUDY

A pilot study is a smaller version of a proposed study conducted to refine the methodology (Burns and Grove 2005:42). Prior to data collection, a pilot study was conducted at Webuye District Hospital which, despite being a district hospital, also acts as a referral hospital in the Western Province of Kenya. The purpose of the pilot study was to assess the feasibility of the study, as well as the validity and reliability of data collection tools. The pilot study also provided the researcher with experience in the data gathering procedure as well as determining the length of time needed to complete the questionnaire. After the pilot study was completed, the necessary adjustments were done to the checklist that revealed omission of some important equipment, e.g. the HIV testing kit.

3.7 DATA COLLECTION PROCESS

Data collection is the process of selecting subjects and gathering the information required to address a research problem (Burns and Grove 2005:430; Polit and Beck 2004:716). In planning the process, a researcher sets out to determine, step by step, how and in what sequence data will be collected (Burns and Grove 2005:421).

3.7.1 QUESTIONNAIRE

In this study, the researcher used a questionnaire as the main data collection instrument to obtain information from the midwives. The questionnaire had two sections; section 1 had questions on respondents' personal information, while section 2 comprised of questions on current aspects of postnatal care that was derived from the literature review (refer Appendix I).

After obtaining permission to conduct the study in the selected hospitals, the researcher met with the nursing officers in charge of these hospitals. These nursing officers either accompanied the researcher to the maternity units or delegated the responsibility to

another nursing officer. The researcher was introduced to the midwives allocated to the specific unit. The researcher then explained the purpose of the proposed study to the midwives and gave them the information document (refer Appendix III). This document explained that participation in the study was voluntary, not biased and that they will not be compensated for their participation.

Participants were ensured that no risks or harm were predicted when participating in the research study. It will, however, take 30 minutes of their time to complete the questionnaire. Confidentiality was assured in that no names or personal identification were revealed on the questionnaire. Midwives were given time to think about possible participation where after the consent form, indicating that they agreed to participate in the study, was signed. Questionnaires were handed out to every consenting midwife to complete. Patient care was given first priority and after nursing duties were done, the midwives completed the questionnaires in the nursing stations at their respective maternity units.

3.7.2 CHECKLIST

The researcher sought permission from the administration of all sampled hospitals to allow her asses to the availability of the physical resources in their maternity units. Permission to undertake the assessment was granted in all the 37 hospitals. The checklist was used to determine the availability of the other required human and physical resources for the provision of postnatal care.

The researcher aimed at obtaining relevant data to verify the input section of the conceptual Framework (Systems Model) as it is deemed crucial in the provision of postnatal care according to informal interviews with expert midwives as well as related studies (Rayner *et al.* 2008:310-320).

3.8 DATA ANALYSIS AND INTERPRETATION

Data analysis is the process of bringing order, structure and meaning to the mass of collected data (De Vos, 2005:333). The ultimate purpose of this process, regardless of the type of data, is to bring some structure and meaning to a large body of information in order to reach a general conclusion that can be communicated in a research report (Kombo and Tromp 2006:110).

Descriptive statistics, namely frequencies and percentages for categorical data and means and standard deviations or medians and percentiles for continuous data, were computed. Data were analysed using STATA version 10. Descriptive statistics were computed for continuous variables using mean, median, standard deviation and inter-quartile range (IQR). Frequency and percentages were used for categorise variables. To assess association between categorical variables, the chi square test was used. In cases where the cell counts were below 5, the Fisher Exact Test was used.

3.9 ETHICAL CONSIDERATIONS

The conduct of nursing research requires not only expertise and diligence, but also honesty and integrity. Conducting research, ethically starts with identification of the study topic and continues throughout to the publication results from this study (Burns and Grove, 2005: 176; Babbie 2004:63-66). Ethical approval of the study was sought from the Ethics Committee of the Faculty of Health Sciences of the University of the Free State. Similarly, ethical clearance was sought from the Institutional Research and Ethics Committee (IREC) at the Moi University School of Medicine as well as from the Moi Teaching and Referral Hospital. Formal approval to conduct the study was granted on 28th July, 2011 approval number **FAN: IREC 000675.**

Permission to carry out the study was also sought from the administration of all the hospitals that took part in both the pilot and the main study before data collection process commenced. The nature and the purpose of the research were explained to the

respondents to ensure their informed consent. The midwives were made aware that the information obtained was to be used in the developing of a Framework to be implemented in order to improve postnatal care.

The researcher made it clear that there would be no remuneration for participating in the study. After reading through the information document, that clearly stated that there were no risks in participating in the study, informed consent was obtained from the midwives.

The researcher respected the individuals' rights to safeguard their personal integrity and therefore participating in the study was voluntary any respondent was free to withdraw from the study at any time. The respondents were assured of confidentiality as no names or personal identification numbers were reflected on the questionnaires. Throughout the study, the principles of beneficence, doing good and non-maleficence no harm to the respondents, was maintained. These ethical considerations were applied during all three phases of the study, the publication and dissemination of results.

3.10 VALIDITY

Validity refers to the degree to which the research instrument measures what it is supposed to measure (Polit and Beck 2006:328; Mugenda and Mugenda 2003:99; McDavid and Hawthorn 2006:452). The most common and useful classification schemes attempting to categorise the validity underlying measurement, is content, face, criterion and construct validity (Pietersen and Maree 2007:216-218). In this study, the researcher focused more on the content validity, because content-related validity examines the extent to which the method of measurement includes all the major elements relevant to the construct being measured (Burns and Grove 2005:377). Content validity is established on the basis of judgement for which researchers or experts make decisions about whether the measure covers all the facets that comprise the concept (De Vos *et al.* 2005:160-161). Face validity was enhanced by the evaluation

of the questionnaire, as well as the checklist, by an expert committee of the Faculty of Health science of the University of the Free State.

3.11 RELIABILITY

Reliability of an instrument is the degree of consistency with which it measures what it is supposed to measure (Burns & Grove 2005:374; Rossouw 2005:122). There are three important aspects relating to reliability, which are stability, equivalence and homogeneity (Botma, Greeff, Mulaudzi and Wright 2010:177). This study used the test-retest (which was determined by administering the same questionnaire to the same midwives working at the Webuye maternity unit) to ensure reliability (Pietersen and Maree 2007:215). Results similar to those of the pilot study, were obtained.

3.12 RESULTS AND DISCUSSION OF PHASE 1

3.12.1 INTRODUCTION

The analysis of data obtained from the midwives' completed questionnaires, as well as the data obtained through the checklists, will be described.
Data were analysed by an expert Biostatistician who is a PhD holder in biostatistics using STATA version 10. Descriptive statistics were computed for continuous variables using mean, median, standard deviation and inter-quartile range (IQR). Frequency and percentages were used for categorical variables. The results from the questionnaire will be presented first, followed by that of the checklist. Tables, pie charts and 3-D cones will be used to present the results.

In the interpretation of the results, the following characters were used (refer Table 3.3)

Table 3.3 Characters used during interpretation and description of results

CHARACTER	DESCRIPTION
N=	Number of respondents who completed the questionnaire
n=	Number of respondents who completed a specific question in the questionnaire
F=	The number of respondents who responded in a certain way [yes or no]
f=	The percentage of respondents who responded in a certain way

Example 3.1: Use of characters in study

The following is an example of how the characters were used in the interpretation and description of results (refer Table 3.3).

Variable: Gender [n=253, F=Male 29, f=11.46%]

3.12.2 AGGREGATED DATA FROM THE QUESTIONNAIRE (MIDWIVES)

Aggregated data from the questionnaire pertaining to the midwives' biographical data are gender, age in years, highest level of education and years of midwifery experience are described below.

3.12.3 BIOGRAPHICAL DATA (N=258)

3.12.3.1 Gender (n=253)

The majority of the midwives, 224 (88.54%), were females, while 29 (11.46%) were males. Five of the midwives who completed the questionnaire, did not indicate their gender (refer Table 3.3).

This correlates with the gender distribution for nurse/midwives in Kenya where the majority are female (Africa Health Workforce Observatory 2009: Online). Globally nursing/midwifery has traditionally been known as a female dominated profession, thus this finding on gender disparity, is acceptable (Neigbour 2005: Online).

3.12.3.2 Age in years

The mean age of participating midwives in this study was 39.17 with 43.3% of the midwives (104/240) ranging between 30 and 39 years. This finding is similar to that established by Riley *et al.* (2007:1389-1405), who reported that the majority of the nurses, including midwives in Kenya, were in their thirties (12 769), in their forties (12 423), with only 5 555 being in their twenties. This finding raises a great concern in the health sector, because there may be an inadequate numbers of nurses and/or midwives to replace those who will retire or leave the workforce in the near future (Stockhausen and Turale 2011: 89).

This may imply that the nursing or midwifery profession is either losing the work force, whereby younger nurses or midwives are quitting their professional jobs earlier, or the profession is no longer attractive to the younger generation (Drury, Francis and Chapman 2008: Online).

Table 3.4 Midwives biographical data (n=253)

VARIABLE	FREQUENCY	PERCENTAGE
Gender: n=253		
Male	29	11.46
Female	224	88.54
Missing	5	
Age in years: n=240		
Mean (std)	39.17	7.58
Median (IQR)	39	34.45

VARIABLE	FREQUENCY	PERCENTAGE
Highest level of Education: n=257		
Certificate	59	22.96
Diploma	191	74.32
Bachelors	5	1.95
Masters	2	0.78
Missing	1	
Midwifery experience in years: n=250		
Mean (std)	11.22	8.39
Median (IQR)	10	4.18

3.12.3.3 Level of education (n=257)

As illustrated in Table 3.4, most of the midwives in this study, 191 (74.32%), had a diploma as their highest level of education; 59 (22.96%) were in possession of a certificate. Only 5 (1.96 %) had a bachelor's degree and 2 (0.78%) were master's degree prepared midwives. One of the midwives, as indicated by the n=257, did not indicate a level of education.

These findings are inverse with the Kenya National Bureau of Statistics (KNBS 2010: Online; Riley *et al*. 2007:1389-1405), that indicates that 34 282 (54%) nurse/midwives highest level of education is at certificate level and 29 678 (46%) at diploma level.

The Kenyan Nursing Council, in collaboration with the African Medical Research Foundation (AMREF), embarked on a training programme to upgrade 20 000 nurse/midwives through a Distance Learning programme, which is both paper-based and electronic (AMREF 2012: Online). A majority of the midwives that the researcher had interaction with during the data collection period were, were already enrolled at various nursing schools and universities to upgrade their level of education. It is therefore projected that many nurses/midwives in Kenya will improve their qualifications.

Nurses or midwives with better qualifications have more advanced knowledge and skills or competencies to provide quality care for all citizens, including the postnatal mothers

and their babies. Better qualified nurse/midwives will contribute to the achievement of the health-related Millennium Development Goals in Kenya (UNFPA 2007a: Online; AMREF 2012: Online). The current educational level of the midwives may be a contributing factor to the lack of postnatal care. This may be derived from statistical evidence of a few years from now when many midwives will have attained higher education in midwifery.

3.12.3.4 Midwifery experience in years

The mean duration of midwifery experience for participating midwives, was 11.22 years (refer Table 3.4).

Many years of midwifery experience translates to a midwife having attended to many births and is linked to one having acquired more knowledge and skills that positively influence the provision of adequate postnatal care (Newick, Vares, Dixon, Johnston and Guilland 2013:7).

Little is mentioned in literature on the effect of years of experience in client/patient care (Halldorsdottir and Karlsdottir 2011:806-817). However, it is vital to note that great emphasis has been put on update training programmes for nurses/midwives and the incorporation of new knowledge and skills (evidence-based) on nursing and midwifery care, by the Nursing Council of Kenya (Nursing Council of Kenya 2012:Online; Courtney and McCutcheon 2010: Online).

3.12.3.5 Distribution of midwives according to the type of hospital

As illustrated in Figure 3.1, most of the midwives, 221/258 (85.66%), worked in 32 district hospitals and 24/258 (9.30%) in the provincial hospitals. Only 13/258 (5.04%) worked in the referral hospitals. This distribution was expected as it reflects the random sampling technique whereby the majority of the midwives, which came from the district

hospitals, were selected. The majority of practising midwives in Kenya are deployed at the district hospitals.

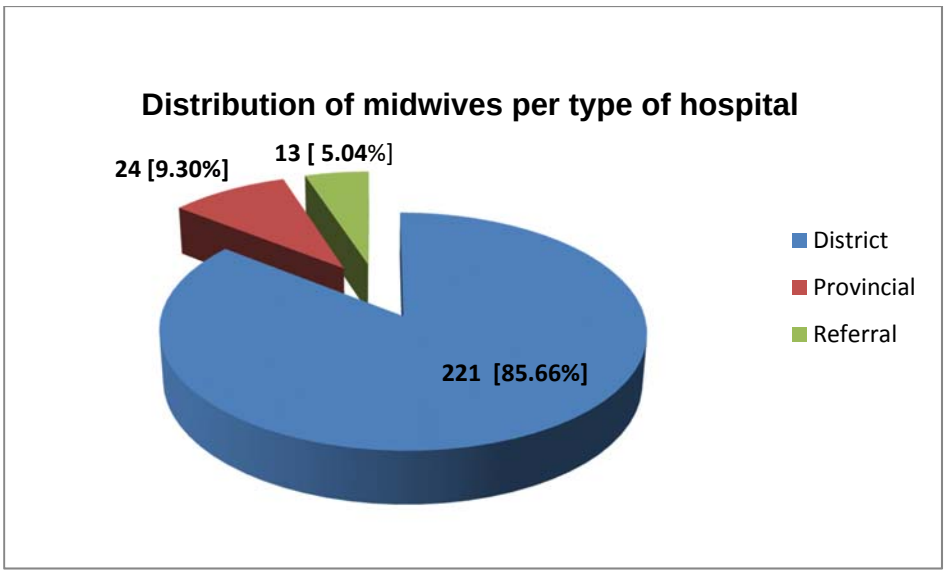


Figure 3.1 Distribution midwives per type of hospital

3.12.3.6 Distribution of hospitals per province

Regarding distribution, Kenya was divided into 8 provinces and 158 Districts in 2009, but most of the districts did not have functional district hospitals at that time (Opiyo *et al.* 2010:1). A functional district hospital is a facility that operates 24 hours a day and offers curative, promotive, and preventive healthcare services to both outpatient and inpatient in all departments, including maternal and child health services (Muga *et al.* 2004: Online). At the Kenyan district hospitals, both preventive and curative services, including maternal and neonatal care services, are offered. District hospitals form an integral part of the District Health Delivery System in Kenya (Muga, Kizito, Mbaya and Gakuguru 2004: Online).

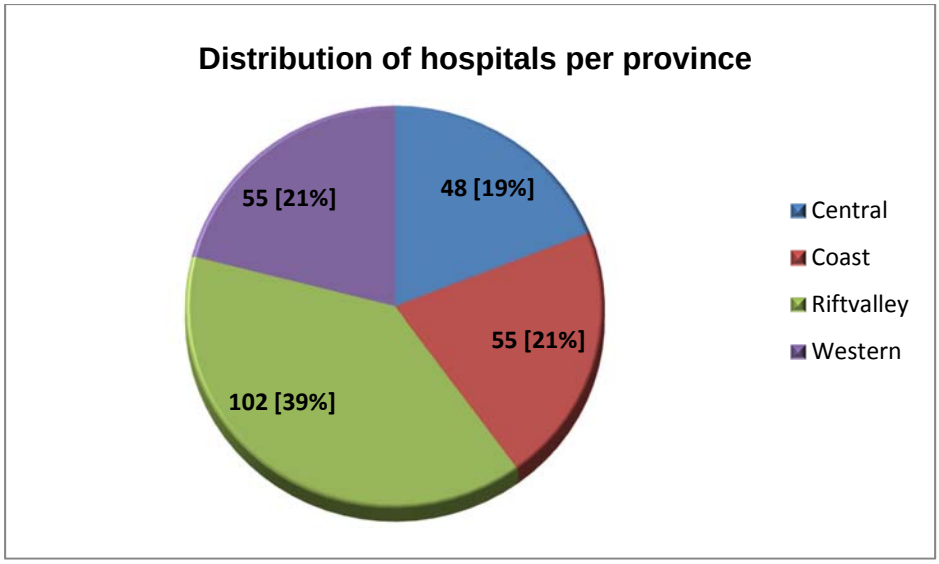


Figure 3.2 Distribution of hospitals per province

The maximum number of midwives (102/258:39.53%), who participated in the study, were from the Rift Valley province, followed by the coastal province with 55/258 (21.32%), the western province with 53/258 (20.54%), and the central province with 48/258 (18.6%). The Rift Valley province in Kenya has the most district hospitals, therefore the majority of the midwives were sampled from this province. As earlier explained, 50% of all the district hospitals in the Rift valley were randomly selected to participate in the study as was done in the other provinces.

The Teaching Referral Hospital, where 13 participating midwives were drawn, also happens to be located in the Rift Valley province, further increasing the number of participating midwives in this province. Although the number of midwives who were sampled in the coast and the western provinces were equal, a midwife from one of the hospitals in the western province did not complete the questionnaire as she was on leave thus the difference in the percentage of the two provinces.

In question 8 the midwives had to indicate the district in which the hospital where postnatal care is offered, was located. This question was meant to reveal where the

questionnaire was completed in case it was misplaced. A majority of the midwives, 196/253 (77.47%), answered that postnatal mothers in their hospitals, were nursed in a unit/room designated for postnatal care delivery. A minority, 57/253 (22.53%), indicated that postnatal mothers were not nursed in a designated unit or room. It is anticipated that postnatal mothers are more likely to receive an improved quality of care if they are in a ward designated only for postnatal mothers as opposed to a general maternity unit where the midwives may spend more time with women in labour, paying less attention to the postnatal mothers (Beake, Rose, Bick, Weavers and Wray 2010: Online).

3.12.3.7 Orientation of midwives

The opinion of the majority of the midwives, 243/258 (94.19%), was that they were given adequate orientation when they commenced in the postnatal or maternity unit. Only 15/258 (5.81%) indicated that they did not received adequate orientation. It is a concern that not all midwifes are orientated in this specific work environment.

Orientation is the process of introducing and welcoming new nurses or midwives into the postnatal unit, assist them to familiarise with all the processes in the unit in order to know what is expected of them (Sauarez 2005: Online). During orientation, the unit manager explores the level of clinical competence of every midwife and identifies those areas in which the midwife requires assistance in the provision of quality postnatal care (Ministry of health Ireland 2011: Online). Thorough orientation contributes to midwives who are skilled in delivering quality postnatal care. This will reduce maternal and neonatal morbidity and mortality and helps to accelerate the attainment of the millennium development goals (DRH Kenya 2011: Online). This attribute was rated and is presented as shown in table 3.5.

Table 3.5 Orientation in postnatal care

Variable	Frequency	Percentage
Orientation at allocation was adequate: N=258		
Yes	243	94.19
No	15	5.81
Orientation included familiarisation with guidelines for PNC: n=256		
Yes	202	78.91
No	54	21.09
Orientation included familiarisation with protocols for PNC: n=252		
Yes	61	24.21
No	191	75.79

The orientation given to midwives, did not include familiarisation with guidelines, 54/256 (21.09%), or with the protocols 191/252 (75.79%). The majority of midwives responded positively to the first two statements in table 3.5. Only 61/252 (24.21%) midwives responded positive to the statement on familiarisation with protocols opposed to the majority that disagreed with this statement.

All policies, which include protocols and guidelines, should always be accessible for reverence whenever the need arises (DRH Kenya 2011: Online; Suarez 2005: Online). However, nearly 79/252 (31.35%), stated that they did not have immediate access to policies and protocols related to postnatal care.

3.12.3.8 Participation in continuing professional education

A large proportion of the midwives, 231/258 (89.53%), indicated that the midwives in their hospital participated in continuous education in order to ensure competency (refer Table 3.6).

The Nursing Council of Kenya, in an effort to ensure that the nurses/midwives possess the competencies required to practice safely, effectively and provide relevant care, demands that all nurse/midwives undergo 40 hours of continuous education annually for their licence to be renewed (Nursing Council of Kenya 2012: Online). This type of intervention to ensure that nurses remain competent, is also established in other countries such as Australia and New Zealand (Andre and Heartfield 2011: Online).

Table 3.6 Continuing professional education for midwives

Variable	Frequency	Percentage
Midwives participated in continuous professional education: N=258		
Yes	231	89.53
No	27	10.47

3.12.3.9 Midwives perception of their knowledge

The majority of midwives 225/257 (87.55%) were of the opinion that they have enough knowledge to offer quality postnatal care (refer Table 3.7). The perceived knowledge does not correlate with the actual provided postnatal care - as a very small proportion of women (37%) indicated that they recently received proper postnatal care from a healthcare provider (Obonyo *et al.* 2010:125). Only 12.45% of the midwives thought that their theoretical knowledge of postnatal care was inadequate.

There were 77 responses on what the midwives thought were needed to address the knowledge deficit. The responses were not mutually exclusive to the provided options, e.g. one midwife indicated a need for all three provided options. The majority of the midwives, 56/77 (72.7%), indicated that they need more knowledge on the management of obstetric emergencies and 16/77 (20.8%) indicated that they need knowledge on the identification of obstetric emergencies. Only a small proportion, 5/77 (6.5%), indicated a need for more knowledge on documentation.

Table 3.7 Midwives perception of theoretical knowledge

Variable	Frequency	Percentage
Think have enough theoretical knowledge to render quality PNC: n=257		
Yes	225	87.55
No	32	12.45

3.12.3.10 Teamwork (Interprofessional collaboration)

Teamwork was reported by almost all midwives, 254 (98.83%), as being practiced in their maternity or postnatal units, similar to other study findings (Rudman *et al.* 2006: Online; Raftopoulos, Savva and Papadopoulou 2011). Teamwork is a critical element of a healthy workforce and requires an explicit decision by members of the team to cooperate in meeting the shared objectives (Clements, Dault and Priest 2007:26-34). Managers and policy makers should strive to transform the healthcare workplace, such as the maternity units, into collaborative patient care centres (Clements *et al.* 2007:26-34).

3.12.3.11 Evaluation of performance and feedback by management

According to 212/255 (83.14%) midwives, their performance had been evaluated by the hospital management. A remarkable number, 194/226 (85.84%), received feedback on

their evaluation (refer Table 3.8). Evaluation of performance in every discipline is very important, yet there exists a lack in appraisal of employee performance in the healthcare system - sometimes not undertaken or implemented (Royal College of Nursing 2014: Online).

Armstrong (2005: 18) reported that regular appraisal of personnel, such as nurses/midwives, are beneficial to the midwives themselves, the managers/supervisors, and the hospital as an institution. Personnel appraisal has been shown to raise the standards of the nursing/midwifery practice, making it easy for the managers to better manage the healthcare facilities, as well as improvement of service provision in healthcare facilities.

Table 3.8 Supervision and evaluation of performance

Variable	Frequency	Percentage
Performance been evaluated by management n=255		
Yes	212	83.14
No	43	16.86
Received feedback on the evaluation n=226		
Yes	194	85.84
No	32	14.16

In Kenya, evaluation of healthcare providers, including midwives, is done annually and feedback is given to individual midwives. Evaluation of performance should be conducted objectively using guidelines to standardise the evaluation of all the healthcare providers being evaluated at a given time (Royal College of Nursing 2014: Online).

The most important process for improved performance is not the set of goals or orders that workers should achieve, but improved relationships and giving them a sense of

belonging in the organisation or a department, such as the postnatal unit (Nursing times.net 2008: Online). Such a relationship has been known to foster improved performance (Nursing times.net 2008: Online). Heathfield (2007: Online) adds that the manager should know the limit in performance of every member and those performing above normal, be recognise and rewarded.

Nursing and midwifery councils in many countries, including Kenya, assess the performance of nurses and midwives to enable them to obtain and/or retain their practicing licence (Nursing Council of Kenyn 2012: Online; Australian Nursing and Midwifery Council 2010: Online).

3.12.3.12 Supervision of Midwives

Midwives indicated that they had enough supervision 226/256 (88.28%). Thirty (11.72%) of the midwives were of the opinion that the supervision they received was, inadequate. Supervision was mainly the responsibility of the professional nurse in charge of the unit 171/235 (72.77%).

Supervision has shown to increase the midwife's professional competence and influence the care and the emotional support given to the mothers in the postnatal period (Henshaw, Clarke and Long 2011: Online; Severinsson, Haruna and Frieberg 2010:400-408).

Seven midwives thought that they did not receive enough supervision in their hospitals. Five were of the opinion that the training of supervisors should be initiated by the Division of Reproductive Health (DRH) to improve supervision. Two midwives felt reorientation and a reminder of their responsibilities of all hospital personnel, were necessary and one indicated that training of hospital/unit managers is needed (refer Table 3.9).

Table 3.9 Supervision of midwives and supervision responsibility

Variable	Frequency	Percentage
Midwives in the PN unit receive enough supervision: n=256		
Yes	226	88.28
No	30	11.72
Supervised by Ward In charge: n=235		
Yes	171	72.77
No	64	27.23

3.12.3.13 Management and evidence based practices

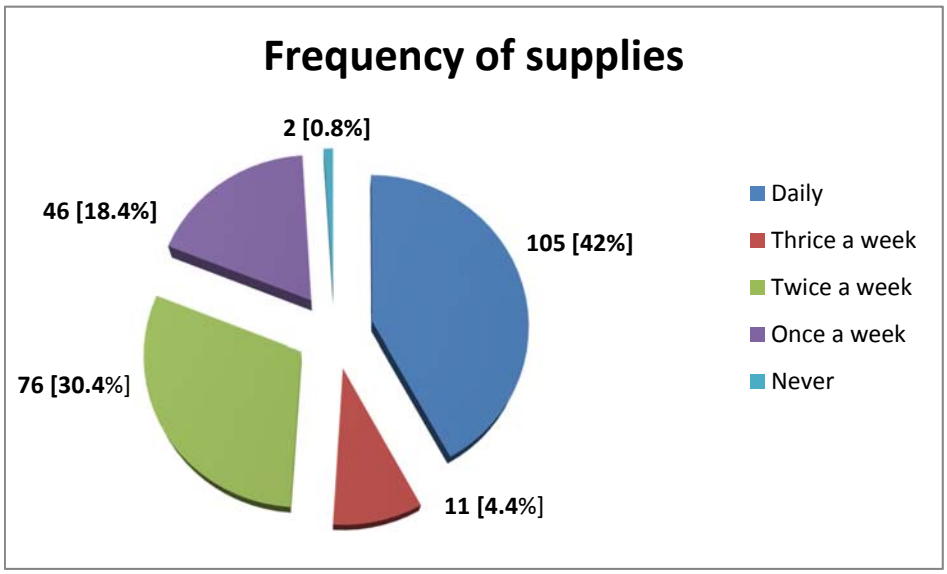
A total of 146/258 (56.6%) of the midwives were of the opinion that the management of their hospital was open to change that is supported by evidence, while 112/258(43.4%) thought the management in their hospital was not open to change. The highest number of midwives, 51/146 (34.9%), indicated that the management would encourage the employees to participate in research, followed closely by 46/146 (31.5%) participants, who indicated that the management would change policies as per the research results. A further 32/146 (21.9%) midwives were of the opinion that the management would organise forums for dissemination of research results. Only (11.6%) 17/146 were of the view that management should allocate funds for research activities.

3.12.3.14 Ordering materials

Mehta *et al.* (2011:2080-2086) define consumable materials as those goods that are disposable in nature and only used once. These goods require recurrent replacement, because they are exhausted quickly. Examples of disposable materials utilised in maternity units include; gloves, gauze, needles and tubing (Mehta *et al.* 2011:2080-2086).

Midwives, 105/250, indicated that consumable materials that they utilise in the care of postnatal mothers were supplied daily if ordered. Midwifes, 76/250, indicated that materials were received twice a week, 46/250 once a week and 2 midwives indicated that their units were not supplied by consumables.

Most of the midwives, 229/250 (91.24%), indicated that it was acceptable in their hospitals to order at any time when supplies were out of stock. From these findings, patient care, as far as consumable materials were concerned, was not a major problem in most of the Kenyan hospitals. The opinion of the midwives is contradictory to the studies done in Kenya, as well as the Kenyan Health Sector (Muinga, Ayieko, Opondo, Ntoburi, Todd, Allen and English 2014: Online).



s

Figure 3.3 Frequency of ordering consumables: n=250

3.12.3.15 Support in postnatal units versus antenatal clinics or labour units

The majority of the midwives, 220/240 (91.7%), were of the opinion that they received the same kind of support while allocated to the postnatal unit as they do while in labour ward or the antenatal clinic. A minority, 20/240 (8.3%), indicated that they did not receive the same kind of support.

3.12.3.16 Religious beliefs, cultural practises and postnatal care (n=247)

Cultural practices can be described as the custom in which things are done by a group of people. It affects all aspects of their lives, positively or negatively (Onyeabochukwu 2007: Online). All postnatal activities performed on mothers and/or on their babies can be seen as culture practices.

As illustrated in Table 3.9, the religious beliefs (113/247:46%) of the client were reported to have an influence on the provision of postnatal care, but according to the midwives, their own religious beliefs 217/252 (86.11%) have no influence in the provision of postnatal care.

Only 165/250 (66.00%) midwives in this study were of the opinion that cultural practices interfere with postnatal care provision. Proof from literature, indicating that cultural beliefs and practices have influence the utilisation of maternal care services, including postnatal care, supports these findings (Bleakney 2010: Online). The midwives, however motivate their opinion in an open ended question. Two themes emerged from their answers. Firstly, specific culture practices that influence care and secondly, the health seeking behaviour that is affected. Specific motivating statements are showed opposite the two themes as indicated in Table 3.10.

Table 3.10: Themes of hindrances to postnatal care

THEME	SUB THEME	STATEMENTS AS MOTIVATION
Practices		
	Nutrition practices	- Restriction of certain food, e.g. proteins during the postnatal period - Discouraging exclusive breast feeding - Mandatory need for usage of herbs for the babies

	Herbal or physical interventions	- Application of a certain oil to the body to assist in cleaning blood clots after delivery - Female genital mutilation leading to complications
	Specific culture practices leading to health complications	- Care of the umbilical cord using saliva or cow dung - Mothers not allowed to take a bath after delivery - Having twins considered a taboo and one of the babies must be killed - Carrying the placenta home to bury after delivering in a hospital
	Emotional restrictions	- Those mothers who deliver through caesarean section are perceived as not having accomplished their womanly role of giving birth due to several factors, e.g. that the husband has sucked on the breast; the mandatory need for use of herbs for the babies
Health seeking behaviour	**Refusing treatment or care**	- Refusing treatment practices, e.g. blood transfusion - Mothers refusing to be examined by young midwives - Mothers refusing to be examined by male midwives - Mothers refusing to be attended to by unmarried midwives - Totally depending on grandmothers' advice for postnatal care - Restricting care from mother not allowed to come out of their homes - Discouragement of hospital delivery and postnatal care

The researcher perceive these perception from midwives, as rather interesting and in contrast with the literature that support the fact that cultural and religious factors have an influence on the utilisation of maternal care services. This is even more evident in Africa where the culture and religious beliefs play a great role in the day-to-day life of the people (Say and Raine 2007:812-819; Iyalomhe and Iyalomhe 2012:71-77). It seems as if the midwives' perception is not a true reflection on the perceiving of

healthcare users with regard to the impact of cultural and religious beliefs on the provision of postnatal care (Gazali, Muktar and Gana 2012:12-21). Cultural and religious beliefs is seen as a major hindrance to utilise healthcare services and in particular maternal healthcare services (Gazali, Muktar and Gana 2012:12-21). Ojwang, Ogutu and Matu (2010:101-117) argue that healthcare providers in Kenya, especially those providing maternal care services, should be culturally sensitive given the reality that Kenya has a diverse cultural heritage and the healthcare providers, serving in a particular region, are not necessarily natives.

Table 3.11 Religious and cultural practices

Variable	Frequency	Percentage
Religious beliefs of clients influence provision of PNC: n= 247		
Yes	113	45.75
No	134	54.25
Religious beliefs of healthcare providers influence PNC: n=252		
Yes	35	13.89
No	217	86.11
Cultural practices in region causes hindrances to provision of PNC: n=250		
Yes	85	34
No	165	66

3.12.3.17 Age difference

A majority of midwives were of the opinion that age difference between themselves and the clients/patients receiving care from them, did not impact on postnatal care. Age, therefore, did not interfere with the provision of postnatal care in Kenyan hospitals (refer Table 3.12).

Table 3.12 Age difference

Variable	Frequency	Percentage
Do age differences between midwife and patient interfere with PNC provision? n=254		
Yes	25	9.84
No	229	90.16

Differences in age among clients/patients and healthcare providers, have been reported to interfere with the provision of maternal care services (James, Rall and Strumpher 2012: Online), likewise it is assumed to be the same for postnatal care. Contradictory to the proven research mentioned, the midwives, 229/254 (90.16%), in this study were of the opinion that age differences did not interfere with the provision of postnatal care. Only 25/254 (9.84%) midwives indicated that age difference interfered with the provision of care and 21 motivated their opinion in an open ended question. Three themes emerged from the open coding of their motivations, namely: young inexperienced midwives; older experienced midwives and acceptability of services. The statements and themes are illustrated in table 3.13 below.

Table 3.13 Themes of interference of postnatal care by age difference

THEME	SUB-THEME AND THEIR SERIAL NUMBERS	FREQUENCY
Young midwifes (inexperience)	Mothers refuse to be attended to by young midwives whom the mothers consider as their daughters with no experience **(1)**	16
	Communication barrier - mothers will withhold some information from the younger midwives **(2)**	1
Older midwife as HCP (experienced)	Mothers prefer to be assisted by old midwives who are experienced **(3)**	2
Acceptability of services	The young mothers, especially those under 16 years, fear coming to the hospital **(4)**	2

From Table 3.13, the results on young (inexperienced) midwives that are identified as the major hindrance in the interference of postnatal care provision with regard to age is. It is therefore prudent for the hospital managers to deploy both young and older midwives in maternity units to provide postnatal care. These older midwives deemed to be better health care providers and can mentor the younger midwives.

3.12.3.18 Attention delivered to postnatal mothers: Antenatal *versus* labour units

Attention delivered to postnatal mothers, as perceived by the midwives, is illustrated in table 3.14. Most of the midwives, 201/255 (78.82%), reported that postnatal mothers were being nursed in units specially designated for them. The designated room was a separate room/unit or a partitioned room to allow the postnatal mothers and their babies to be comfortable and to get some rest after the delivery. However, it seemed as if some mothers received care in other units where postnatal care was integrated with antenatal and intrapartum care. A majority of the midwives, 207/251 (82.47%), were of the opinion that the postnatal mothers received the same kind of support as those in the antenatal and the labour wards. This is contradictory to evidence from literature confirming that the postnatal period is the most neglected component of maternal care. Only a small percentage of mothers utilising postnatal care compared with the antenatal and labour periods (Obonyo *et al.* 2010:124; Vora, Mavalankar, Ramani, Upadhaya, Sharma, Iyengar, Gupta and Iyengar 2009:184-201). The underutilisation of postnatal care are well documented in the literature (Singh, Rai, Alagarajan and Singh 2012: Online; Regassa 2011:390-397; Mrisho *et al.* 2007:862-876). It is alarming that the midwives in this study contradicted this despite evidence from literature in Kenya that postnatal care is neglected (Kenya ministry of public health and sanitation, 2012:18).

Forty four out of 251 (17.5%) of the midwives indicated that the postnatal mothers did not receive the same attention as those in antenatal and labour units. In an open ended question, these 44 midwifes motivated why they were of the opinion that mothers did

not receive the same care. The open coding revealed three themes namely, the perceptions of midwives, the demand on human resources, and the availability of physical resources (refer Table 3.14).

Table 3.14 Themes: Opinions of midwives regarding attention paid to postnatal mothers

THEME	SUB THEME	STATEMENT
Perception of midwives	Knowledge about the importance of postnatal care	• Daily examination is rarely done • Episiotomies are not inspected • To-the-breast attachment of babies not routinely demonstrated to mothers • Postnatal check-up within 24 hours not practiced • Most of postnatal care are not emergencies like those in antenatal and labour • Antenatal mothers and those in labour are considered to be more at risk than the postnatal mothers • The baby in the postnatal ward received more attention
	Perception of the importance of postnatal care	• Postnatal mothers need more individualised care for themselves and their babies • Different categories of mothers have different needs • Family planning not initiated
Demand on human resources		• Shortage of nurses/midwives - more attention is given to the mothers in labour • Postnatal mothers are assumed to be okay – nurses/midwives were under pressure due to workload
Availability of physical resources		• Limited space for the care of postnatal mothers • Congested amount of mothers in the postnatal unit

Three themes regarding attention paid to postnatal mothers were drawn from the opinions of the midwives. The three themes are: perception of the midwives regarding

the knowledge and importance of postnatal care; demand on human resources and the availability of physical resources. The theme on the perception of the importance of knowledge in postnatal care, could explain why most midwives do not perform daily assessments on postnatal mothers, nor render the required interventions. The theme on the demand for human resources, as cited by the midwives, was further identified by the researcher during data collection in phase 1 that took place in all the identified hospitals for the study. A shortage of midwives was observed and reported in all the maternity units. The third theme on availability of physical resources as demonstrated in the congestion of mothers in the postnatal ward, may be a contributing factor to the midwives not being able to provide individualised care to the postnatal mothers.

3.12.3.19 Decision making

Most of the midwives, 223/249 (89.56%), reported that the postnatal mothers were involved in decision making regarding their care and that of their infants. Yet again the perception of the care, rendered by Kenyan midwives, is in contradiction with evidence from the literature. Many women have no say in their reproductive decisions, e.g. when and where to seek for healthcare, including postpartum care. These decisions are left to their husbands or mother-in-laws (Furuta and Salway 2006:17-27). The mother's participation is restricted and inconsistently applied (Goldberg 2009:32-40).

3.12.3.20 Respect and dignity

Almost all the midwives, 254 (99.61%), indicated that postnatal mothers were treated with respect and dignity in the hospital. This theme, 'respect for patients' peaked at 42.5% followed by that of observing individual patients' rights at 24.6%. Good communication ranked third at 17.5%. The theme on the concern of the mother's health, was fourthly ranked at 17.1 and the concern for the baby's health, fifthly ranked at 16.4%. Themes with lower scores are those of individualised care at 5% and health education at 3.6%. From this analysis, health care professionals, especially midwives, need to respect patients, answer to human rights and maintain good communication

when delivering postnatal care to mothers and their babies. Regarding the treatment of patients with dignity, the theme on the 'provision of equity and equality services' peaked at 7.5%. This was followed by 'provision of quality health education' at 6.8%, and addressing welfare issues at 5.7%. The theme on 'addressing patient's safety issues' ranked fourth 2.5%. The fifth and final theme is that of 'showing professional courtesy' at 1.4%. It is clear from these themes that the provision of equity and equality services as well as giving health education are the main keys of postnatal care delivery.

The White Ribbon Alliance for Safe Motherhood, however, indicates that many women in many counties of the world are subjected to disrespect, humiliation, discrimination, emotional and even physical abuse as they seek for maternity care in many healthcare facilities (The White Ribbon Alliance for Safe Motherhood 2012: Online). In Kenya, the mistreatment of women seeking competent care, has been identified as an important barrier to the utilisation of maternal care services, including postnatal care. Women seeking maternity care complained about the interpersonal dimension of maternal care (Bowser and Hill 2010: Online). It is clear from this evidence that the midwives perspectives is in total contradiction with what literature indicates.

In Table 3.15 the statements by midwives were categorised in themes, sub-themes, and frequency. The frequencies as added to add to a better understanding of how the midwives rated a specific theme.

Table 3.15: Themes on how postnatal mothers were treated with respect (The numbers in brackets are the serial numbers of the statements made by the midwives)

THEME	SUB-THEME	FREQUENCY
Respect for patients	• Respecting the clients values like cultural and religious beliefs (**1)**	**49**
	• Involving the patient in decision-making regarding her care and that of her baby (**3)**	**23**
	• Allowing their partners to be with the	**1**

THEME	SUB-THEME	FREQUENCY
	patients (**4)** • Giving information to the patient (**5)** • Listening to the patients' views (**6)** • Observing the rights of the patient (**7)**	 **7** **19** **20**
Good communication	• Involving the patient in decision making regarding her care and that of her baby **(3**) • Giving information to the patient **(5)** • Listening to the patients' views (**6)**	**23** **7** **19**
Individualised care	• Individualised care (**15)** • Meeting all their needs **(19)**	**13** **1**
Maintaining individual's rights	• Involving the patient in decision making regarding her care and that of her baby (**3)** • Giving information to the patient **(5)** • Listening to the patients' views (**6)** • Observing the rights of the patient(**7)**	**23** **7** **19** **20**
Health Education	• Giving information to the patient (**5)** • Counselling on the methods of family planning (**10)** • Answering all their questions (**25)** • Addressing patients complaints (**33)**	**7** **1** **1** **1**
Concern of mother's health status	• Involving the patient in decision making regarding her care and that of her baby (**3)** • Providing something to drink, e.g. tea or something to eat, e.g. porridge after delivery(**8)** • Teaching the mother on self-care and the care of the baby (**9)** • Meeting all their needs (**19)** • To avoid complications, e.g. puerperal psychosis (**24)** • Discharging mothers only when they are strong and comfortable (**27)** • No harm done to the patient (**28)** • Allowing a birth companion to be with them (**30)**	**23** **11** **9** **1** **1** **1** **1** **2**
Baby's health	• Involving the patient in decision making regarding her care and that of her baby **(3)** • Providing something to drink, e.g. tea or something to eat, e.g. porridge after delivery((**8)**	**23** **11** **1**

THEME	SUB-THEME	FREQUENCY
	• Counselling on the methods of family planning **(10)**	**1**
	• Offering Baby Friendly services (**21)**	**9**
	• Offering Baby feeding options for HIV positive mothers (**22)**	**1**
	• No harm done to the patient (**28)**	

Themes in Table 3.15 are those developed from statements pertaining to the treatment of postnatal mothers with respect. Respect for patients is the theme that ranked the highest with 119 votes followed by maintaining individual patients' rights (69). Good communication (49) and by concern of mother's health (49) ranked third, followed by the concern for baby's health 46 votes. Themes with lower scores are those of individualised care (14) and health education (10). From this analysis, health care professionals, especially the midwives, need to respect patients, maintain human rights and uphold good communication with postnatal mothers.

The questionnaire included a question concerning the treatment of postnatal mothers with respect and dignity by the midwives. These two concepts were separated during the analysis and below is a table to illustrate the results. The frequencies indicated in the tables below, indicate the strength of a vote for a specific theme.

Table 3.16 Themes on the treatment of postnatal mothers with respect and dignity. (The numbers in brackets are the serial numbers of the statements made by the midwives)

THEME	SUB-THEME	FREQUENCY
Provide quality service	• Getting their feedback trough exit interviews (**18)**	**1**
	• Given quality nursing care (**20**)	**4**
Provide equity and equality services	• Receiving individualised care (**11)**	**1**
	• Equal treatment regardless of their background (**13)**	**6**
	• Postnatal mothers treated like any other mother (**14)**	**1**
	• Individualised care (**15)**	**13**
Address patients' safety issues	• Discharging mothers only when they are strong and comfortable (**27)**	**1**

	• Allowing a birth companion to be with them (**30)**	**2**
	• Made patient feel welcomed **(31)**	**1**
	• Provision of comfort (**32)**	**1**
	• Addressing patients' complaints (**33)**	**1**
	• Meeting all their needs (**34)**	**1**
Provide quality health education	• Teaching the mother on self-care and care of the baby (**9)**	**9**
	• Counselling on the methods of family planning (**10)**	**1**
	• Offering baby feeding options for HIV positive mothers (**22)**	**9**
Show professional courtesy	• Made patient feel welcomed (**31)**	**1**
	• Provision of comfort **(32)**	**1**
	• Addressing patients' complaints (**33)**	**1**
	• Meeting all their needs (**34)**	**1**
Address welness issues	• Providing something to drink, e.g. tea or something to eat, e.g. porridge after delivery **(8)**	**11**
	• Provision for a warm bath (**26)**	**4**
	• Provision of linen (**29)**	**1**

The theme on provision of equity and equality services, that ranked the highest (21 votes), pertains to treatment of postnatal mothers with dignity. The theme was followed by provision of quality health education (19), addressing wellness issues (16) and addressing patient's safety issues (7), quality service rendering (5) and showing professional courtesy (4). It is clear from these themes that provision of equity and equality services together with health education are the main keys to the treatment of postnatal mothers with dignity.

3.12.3.21 Counselling

Postnatal counselling in this study, refers to the process of interacting with the postnatal mothers enabling them to make informed decisions regarding their own care and that of their babies, was indicated as an important aspect of postnatal care by 245 (97.22%) of the midwives (refer Table 3.18). This result is in line with guidelines for the provision of postnatal care which emphasises counselling as an integral part of postnatal care (Warren *et al*. 2006: Online; Kenya Service Provision Assessment 2011:114).

Counselling furthermore focuses on important issues such as diet and nutrition, exercise, contraception, breastfeeding and general care of the new-born (Association of Reproductive Health Professionals 2006: Online). However, some women complained of not receiving any form of counselling post labour in any healthcare facilities (Varma, Khan and Hazra 2010:31-43).

Table 3.17 below contains the themes, sub-themes, frequencies and theme percentages as indicated by the midwives on how counselling is considered an important aspect of postnatal care by those whose response was on the affirmative. The numbers in brackets are the serial numbers of the statements by the midwives.

Table 3.17 Theme on how counselling is considered an important aspect of postnatal care

THEME	SUB-THEME	FREQUENCY
Guiding the mother	Helps mothers to develop a positive attitude relating to reproductive health (1)	**3**
	Assisting mothers in decision-making on new-born care (13)	**4**
	Assisting mothers to make informed choices regarding own care (14)	**6**
	Guides mothers to achieve full postnatal recovery (15)	**1**
	Provides psychological support to the mother(16)	**1**
	Helps mothers in the transition to maternal role accomplishment(17)	**1**
	Identifies good cultural practices that enhance health(19)	**3**
	Identifies HIV-sero positive women and provide information of feeding options for babies (20)	**4**
	Counsel on common complications in puerperium and precautions to avoid it (22)	**2**
	Helps the mothers to develop self-knowledge (23)	**1**
	Supports women during grief and loss of new-born (25)	**3**
	Supports women with socio-economic challenges (26)	**3**
	Address challenges being faced by postnatal mothers (28)	**1**
	Provides a forum for communication that enhances	**4**

	self-disclosure (36)	
Health Education	Assists postnatal mothers in self-care and appropriate new-born care (6)	**30**
	Empowers mothers with knowledge to guide in decision making (7)	**15**
	Enhances home practices for infection prevention and control (8)	**1**
	Improves postnatal medical and nursing care follow-up (9)	**8**
	Provides health promotion information on nutrition, immunisation, exercise, hygiene, breastfeeding and contraception (11)	**45**
	Influences decision-making on infant feeding options (12)	**2**
	Enhances effective postnatal care for reduced morbidity (30)	**4**
	Provides individualised care to meet individual needs (31)	**1**
	Clarifies health issues of importance to the woman and her family (32)	**1**
	Facilitates informed consent before nursing or medical procedures (33)	**1**
	Enhances transition towards maternal role attainment (35)	**1**
	Provides mothers with opportunity to understand and participate in own health care (40)	**2**
	Provide health information on contraceptives and child spacing (41)	**5**
	Provides health information at the right time, in the right format and on the appropriate level of understanding (42)	**1**
Improves nurse/midwife-patient relationships and parent-child bonding	Enables postnatal mothers to take care of themselves and their neonates (6)	**30**
	Enhances women's self confidence in maternal role (21)	**1**
	Helps in developing common understanding between the patients and midwives (27)	**3**
	Enhances quality of care (29)	**2**
	Improves service delivery (34)	**1**
	Provides a line for open communication on important postnatal health issues (36)	**4**
	Helps building trusting relationships that guide	**1**

women to comply with midwife expectations (37)

Three themes emerged from the midwives explanations on how counselling is considered an important aspect of postnatal care which are: guidance to mothers; health education and improved relationships. The theme with the highest votes is that of health education with 117 votes, followed by the theme on improving relationships, 42 votes and lastly, the theme on guiding the mother, 37 votes. Counselling further promotes an understanding between the midwives and the patients hence an important aspect of postnatal care. Midwives and other health care providers should therefore be trained and equipped to offer appropriate counselling to postnatal mothers that will contribute to the improvement of postnatal care (Ministry of Public Health and Sanitation and the Ministry of Medical Services 2012:22)

3.12.3.22 Postnatal follow-up

Midwives, 240 (94.02%), reported that postnatal follow-up appointments had been made before the clients/patients were discharged from the hospitals. The follow-up of postnatal mothers within two weeks after discharge, were reported by the majority of the midwives, 153 (63.75%). This was followed by those who indicated that follow-up appointments were done at 6 weeks, 83 (35%), and a very small proportion, 4 (1.67%), within three days after birth. These figures were tabulated in Table 3.18.

According to Warren *et al.* (2006: Online), the WHO recommends that postnatal mothers remain in the healthcare facility for at least 24 hours after birth. Follow-up should then be made in stages; within 2-3 days, 6-7 days and 6 weeks respectively for early diagnosis and management of postnatal complications.

Table 3.18 Management of postnatal mothers (n-253)

Variable	Frequency	Percentage
PN mothers receive same kind of support as in the antenatal and labour ward: n=251		
Yes	**207**	**82.47**
No	**44**	**17.53**
Postnatal mothers nursed in designated units: n=255		
Yes	201	78.82
No	54	21.18
PN mothers involved in decision-making concerning their care and that of their infants: n=249		
Yes	223	89.56
No	26	10.44
PN mothers treated with respect and dignity: n=255		
Yes	254	99.61
No	1	0.39
Counselling considered an important aspect of PN care: n=252		
Yes	245	97.22
No	7	2.78
PN follow-up appointments made before client discharge: n=255		
Yes	240	94.02
No	15	5.88
Follow-up appointments occur: n=240		
Within the first 3 days	4	1.67
2 weeks	153	63.75
6 weeks	83	34.58

3.12.3.23 Ratings of postnatal care (n=253)

The midwives' responses to the rating of postnatal care, were as follows: Very important 136/253 (53.75%), extremely important, 96/254 (36.36%), important, 22/253 (8.7%) and not at all, 3/253 (1.19%). None of the midwives who responded to this question indicated that it was 'not that important'. When midwives view postnatal care as an extremely important aspect of maternal care, they will more likely provide quality care to the postnatal mothers and their babies.

Table 3.19 Rating of postnatal care

Variable	**Rating**		
	Important	**Very Important**	**Extremely important**
Gender	n=22	n=133	n=91
Male	0	15(11.28)	12(13.19)
Female	22(100)	118(88.72)	79(86.81)
Hospital level	n=22	n=136	n=92
District	21(95.45)	121(88.97)	72(78.26)
Provincial	0	10(7.35)	14(15.22)
Referral	1(4.55)	5(3.68)	6(6.52)
Province	n=22	n=136	n=92
Central	2(9.09)	25(18.38)	21(22.83)
Coast	5(22.73)	19(13.97)	28(30.43)
Rift Valley	9(40.91)	63(46.32)	26(28.26)
Western	6(27.27)	29(21.32)	17(18.48)

The ratings by midwives on the importance of postnatal care, are represented on Figure 3.4 below.

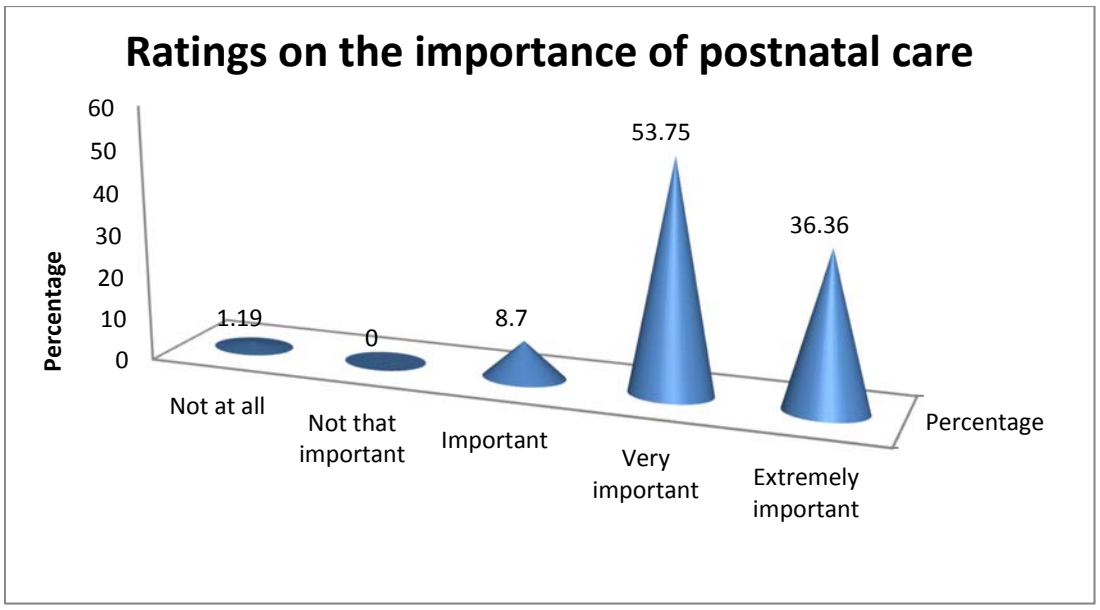


Figure 3.4 Ratings on the importance of postnatal care

Midwives who consider postnatal care as extremely important, are more likely to do a quality assessment of both the mother and baby, and then plan and implement nursing care accordingly. Chimtembo, Maluwa, Chimwaza, Chirwa and Pindani (2013:243-350) argues that comprehensive assessment of both mother and baby will lead to early diagnosis of risk factors and ensure appropriate intervention measures to prevent the development of complications (Sines *et al.* 2007: Online).

The postnatal period provides the midwives with an opportunity to counsel mothers on important aspects of postnatal care, including family planning, promoting exclusive breastfeeding and postnatal follow-up care (Chimtembo *et al.* 2013:243-350).

3.12.4 AGGREGATED DATA FROM THE CHECKLIST

After the checklists were completed in all the selected hospitals, the following aggregated data was accessible. The average number of mothers giving birth in the various hospitals varied depending on the category of the hospital. The highest number, 750 mothers per month, was reported at the referral hospital. This was followed by the provincial hospitals at 435, standard deviation (sd) =270, and the lowest being reported at the district hospitals, 200.97, sd = 139.24.

Of concern is the low midwife-patient ratio that was reported during the hospital audit in all the hospitals utilised for the study (refer to question 3, Appendix II). Although the ratios were slightly different from one hospital to the other, on average, one midwife to more than ten patients was reported in the majority of the hospitals which is far below the recommendation of the Nursing Council of Kenya - one midwife to five patients in a postnatal unit (Nursing Council of Kenya 2012: 15). It was important to assess whether the number of midwives were adequate to take care of the postnatal mothers, because with the low midwife ratio, the quality of care is likely to be compromised.

The checklist had various items in terms of drugs, materials and equipment considered key in the management of postnatal mothers and their babies.

Table 3.20 Essential drugs as indicated in the checklist

TABLE FOR CHECKLIST OF SPECIFIC MEDICATIONS AT THE 37 HOSPITALS SELECTED FOR THE STUDY

Antibiotics	Available	Unavailable	Frequency	Percentage
Ampicillin,	**8**	**29**	**29**	**21.6%**
Amoxyl	**36**	**1**	**36**	**97.3%**
Augumentin	**20**	**17**	**20**	**54.1%**
Ceftriaxone	**31**	**6**	**31**	**83.8%**
Crystapen	**37**	**0**	**37**	**100%**
Flagyl	**35**	**2**	**35**	**94.6%**
Emergency Drugs				
Adrenaline	**37**	**0**	**37**	**100%**
Calcium gluconate	**32**	**5**	**32**	**86.5%**
50% dextrose	**37**	**0**	**37**	**100%**
Diazepam	**35**	**2**	**35**	**94.6%**
Ergometrine	**12**	**25**	**12**	**32.4%**
Hydrocortisone	**35**	**2**	**35**	**94.6%**
Magnesium sulphate	**36**	**1**	**36**	**97.3%**
Misoprosol	**12**	**25**	**12**	**32.4%**
Naloxone	**11**	**26**	**11**	**29.7%**
Oxytocin	**36**	**1**	**36**	**97.3%**
Sodium bicarbonate	**29**	**8**	**29**	**78.4%**
Other essential drugs				
Antiretroviral treatment	36	1	36	97.3%
Brufen	32	5	35	86.5%
Hydralazine	32	5	32	86.5%
Insulin	28	9	28	75.7%
Lasix	37	0	37	100%
Lindnocaine	33	4	33	89.2%
Morphine	17	20	17	45.9%
Nifidepine	26	11	26	70.3%
Normal Saline	29	8	29	78.4%
Panadol	37	0	37	100%
Pethidine	29	8	29	78.4%
Phenytoin	20	17	20	54.1%
Tramadol	7	30	7	18.9%

TABLE - EQUIPMENT AND MATERIALS FOR INFECTION PREVENTION

EQUIPMENT OR MATERIAL	Available	Unavailable	Frequency	Percentage
A container for disposing sharps	37	0	37	100
A container with 1-6 jik and water for decontamination of re-usable equipment	37	0	37	100
A container with clean soapy water	37	0	37	100
Environmental cleaning equipment and materials	35	2	35	94.6
Containers for disposing of other used materials	37	0	37	100
Jik for disinfection/decontamination	37	0	37	100
Soap for cleaning	35	2	35	94.6

TABLE- EQUIPMENT AND MATERIALS FOR GENERAL AND EMERGENCY CARE

EQUIPMENT OR MATERIAL	Available	Unavailable	Frequency	Percentage
Adult intravenous tubing sets	36	1	36	97.3
Adult face mask	33	4	33	89.2
Ambubag	37	0	37	100
B/P machine in good working condition	36	1	36	97.3
Baby weighing scale	35	2	36	94.6
Bed linen	25	12	25	67.6
Blood giving tubing sets	36	1	36	97.3
Branulas	36	1	36	97.3
Drip stands	28	9	28	75.5
Examination Coach	35	2	35	94.6
File trolley	33	4	33	89.2
HIV testing kit	36	1	36	97.3
Laryngoscope	25	12	12	67.6
Needles gauge 21	37	0	37	100
Needles gauge 23	36	1	36	97.3
Neonatal face mask	34	3	34	91.9
Oxygen cylinder/piped oxygen	31	6	31	83.8
Pediatric Intravenous tubing sets	31	6	31	83.8
Record sheet available for documentation	35	2	35	94.6

Sitting facilities available for the postnatal mothers	4	33	4	10.8
Suction Bulb	17	20	17	45.9
Tape measure	22	15	22	59.5
The bed spaces for nursing postnatal mother and at least 4ft apart	19	18	19	51.4
Thermometer	37	0	37	100
Uri sticks for measuring urine	11	26	11	29.7
Working suction machine	31	6	31	83.7
IV. Fluids	36	1	36	97.3
Monitoring Charts	35	2	35	94.6

POLICIES

Manuals and Cards	Accessible	Inaccessible	Frequency	Percentage
Essential Obstetric care	19	18	19	51.4
Kenya National Reproductive Health Manual for service providers	17	20	17	45.9
Road to health cards for documenting weight and immunizations	34	3	34	91.9

From Table 3.20, on the availability of Antibiotics, Crystapen was the most available antibiotic in all the hospitals utilised for the study, followed by Amoxyl and Flagyl respectively. The least available antibiotic was Ampicillin followed by Augumentin. In general, all the hospitals had adequate antibiotics for prophylaxis and treatment of infections when required. As pertains to the drugs for emergency care, Adrenaline and 50% dextrose was available in all the hospitals while Oxytocin, magnesium sulphate and hydrocortisone were available in more than 90% of the hospitals. The drugs that were least available were Naloxone, Egormetrine and misoprosol. In the list of other essential drug categories, Lasix and Panadol were available in all the 37 hospitals followed by the antiretroviral treatment available in 36 hospitals. The least available drugs were Tramadol, available only in 7 hospitals, followed closely by morphine, available at 17 hospitals. Having completed the audit of essential drugs, the next step was to audit the materials and equipment indicated in the checklist.

3.12.4.1 Equipment and materials for infection prevention

In order for the midwives to offer safe and quality postnatal care, adequate infection prevention equipment and material should be available in all maternity departments. In Table 3.21 a list of equipment and materials for infection prevention, is listed. According to the information provided there seemed not to be a problem with regard to the provision of equipment and material in most of the facilities that was audited.

Table 3.21 Equipment and material supplies: Infection prevention

EQUIPMENT OR MATERIAL	Available	Unavailable	Frequency	Percentage
A container for disposing sharps	37	0	37	100
A container with 1-6 jik and water for decontamination of re-usable equipment	37	0	37	100
A container with clean soapy water	37	0	37	100
Environmental cleaning equipment and materials	35	2	35	94.6
Containers for disposing of other used materials	37	0	37	100
Jik for disinfection/decontamination	37	0	37	100
Soap for cleaning	35	2	35	94.6

3.12.4.2 Equipment and materials needed in general and emergency care

Apart from the equipment for infection prevention, maternity departments should have sufficient supply of equipment and materials for use during emergencies and general care of postnatal mothers (refer to Table 3.22).

Table 3.22 Equipment and materials: General and emergency care (N=37)

EQUIPMENT OR MATERIAL	Available	Unavailable	Frequency	Percentage
Adult intravenous tubing sets	36	1	36	97.3
Adult face mask	33	4	33	89.2
Ambubag	37	0	37	100
B/P machine in good working condition	36	1	36	97.3
Baby weighing scale	35	2	36	94.6
Bed linen	25	12	25	67.6
Blood administer tubing sets	36	1	36	97.3
Branulas	36	1	36	97.3
Drip stands	28	9	28	75.5
Examination Coach	35	2	35	94.6
File trolley	33	4	33	89.2
HIV testing kit	36	1	36	97.3
Laryngoscope	25	12	12	67.6
Needles gauge 21	37	0	37	100
Needles gauge 23	36	1	36	97.3

Neonatal face mask	34	3	34	91.9
Oxygen cylinder/piped oxygen	31	6	31	83.8
Paediatric Intravenous tubing sets	31	6	31	83.8
Record sheet available for documentation	35	2	35	94.6
Sitting facilities available for the postnatal mothers	4	33	4	10.8
Suction Bulb	17	20	17	45.9
Tape measure	22	15	22	59.5
The bed spaces for nursing postnatal mother and at least 4ft apart	19	18	19	51.4
Thermometer	37	0	37	100
Uri sticks for measuring urine	11	26	11	29.7
Working suction machine	31	6	31	83.7
IV. Fluids	36	1	36	97.3
Monitoring Charts	35	2	35	94.6

All the 37 hospitals had a number of items to include, ambubags for resuscitation during emergencies, needles gauge 21 for general and emergency care and thermometers for use while taking observations of postnatal mothers and their babies. Other items available in 90% of the hospitals were the adult intravenous tubing sets, blood pressure machine in good working order, granules, HIV testing kits, needles gauge 23, record sheets for documentation, neonatal facemasks, examination beds and baby weighing scales at 10.8%, uristicks for urine testing at 29.3% and suction bulb at 45.9%.

3.12.5 POLICIES: ACCESSIBILITY

Documents referred to as policies and audited on the checklist during this study, were the Essential Obstetric Care manuals for service providers in Kenya. The Kenya National Reproductive Health Manual for service providers is another of the documents

the DRH had distributed to guide service provision at the time of data collection. The Road to health charts for documenting growth monitoring and immunisations, were part of the documents distributed by the DRH. The Essential Obstetric Care manual was accessible in only nineteen hospitals while the Reproductive Health Manual was accessible for service providers in seventeen hospitals. It was encouraging that the Road-to-Health cards for documenting babies' weight and immunisations were accessible in 34 of the hospitals.

Table 3.23 Policies: Accessibility (N=37)

MANUALS AND CHARTS	Accessible	Inaccessible	Frequency	Percentage
Essential Obstetric care	19	18	19	**51.4**
Kenya National Reproductive Health Manual for service providers	17	20	17	**45.9**
Road to health cards for documenting weight and immunisations	34	3	34	**91.9**

3.12.6 DISCUSSION OF FINDINGS FROM THE CHECKLIST

A checklist was used to assess availability of both human and physical resources in all 37 hospitals used in the study. The findings are discussed below.

3.12.6.1 Number of mothers giving birth at the hospitals and midwife patient ratio

The average number of mothers giving birth in the selected hospitals varied according to the category of the hospital. The highest number of births were at the Moi Teaching and Referral Hospital = 750 births per month. The number, per month, of mothers giving birth at the Kenyatta National Referral Hospital, is expected to be higher than the 750 as

mentioned, given that Kenyatta National Referral Hospital is bigger than the Moi Teaching and Referral Hospital and serves a larger population. These are the only two referral hospitals in the country offering highly specialized diagnostic, therapeutic and rehabilitative services (Muga *et a*l. 2004: Online).

The provincial hospitals had an average of 435 mothers giving birth per month. The lowest number of births to be reported, were at the district hospitals (200.97, sd = 139.24). Midwife to patient ratio was reportedly to be low in all the hospitals utilised for the study. The acute shortage of midwives currently in the health delivery systems in Kenya, has to be addressed urgently.

3.12.6.2 Drugs for emergency obstetric care and antibiotics

Ziraba *et al.* (2009) argue that successful prevention of maternal deaths depends on the provision of adequate and quality obstetric care. This requires competent personnel and a supportive environment, such as the availability of drugs for emergency obstetric care. Drugs used for emergency obstetric care, e.g. parenteral oxytocic drugs and parenteral anticonvulsant drugs, used for treatment of pregnancy induced hypertension, are important inputs of emergency obstetric care together with parenteral antibiotics (Pearson and Shoo 2005:208-215).

The study findings indicated that drugs required for emergency care were available in most of the hospitals. Findings further indicated that the necessary antibiotics for treatment and prophylaxis in the management of postnatal mothers and their babies, were available in most of the hospitals. These findings differ from those by Mwangi, Warren, Koskei and Blanchard (2008: Online), who identified shortages of essential drugs and antibiotics in some hospitals providing postnatal care in Kenya. A study by Pearson and Shoo (2005:805-815), has also established that there was inadequate coverage of emergency obstetric care and recommended routine supply of oxytocin and magnesium sulphate at these health centres.

It is very important that the Kenyan government, through the Ministry of Health, develops a standardised and effective emergency drug supply system to aid in emergency healthcare service delivery.

3.12.6.3 Material supplies and equipment for general emergency care

The majority of the hospitals, 34 (91.89%), reported that the necessary material supplies and equipment for general emergency care, were available in their hospitals. Findings from the research study are in contrast to a report by the WHO (2006), which indicated that the healthcare facilities in Kenya had inadequate supplies of material and equipment crucial in general emergency care. Shortage of material supplies and essential equipment, has also been identified by Pearson and Shoo (2005:805-815) as a major hindrance in the provision of quality emergency obstetric care.

3.12.6.4 Material supplies and equipment for infection prevention

A large proportion of the hospitals, 31(83.78%), reported to be in possession of all the necessary material supplies and equipment needed for infection prevention. A situational analysis, done by the Kenyan Ministry of Public Health and Sanitation and the Ministry of Medical Services (2010), revealed that in 12 healthcare facilities in 5 provinces, significant differences in the infection prevention practices in healthcare facilities. Some facilities adhere to the infection prevention practices while others do not. Inadequate material supplies and equipment for infection prevention, e.g. gloves, goggles, plastic aprons among other items, has also been noted.

Other factors contributing to poor performance in the prevention of infection, are a lack of guidelines healthcare providers' inadequate knowledge and skills (Ministry of Public Health and Ministry of Medical Services Survey 2010: Online).

3.12.6.5 Policies and manuals for the provision of postnatal care

More than half of the Hospitals included in the study, 19 (51.4%), had their Essential Obstetrics Care Manual for Health Service Providers in Kenya accessible to all their staff. Only 17 (45.9%) of the hospitals reported that the Kenya National Reproductive Health manual for service providers was accessible to personnel. These findings are of concern given that the above manuals are meant to standardize the care provided to postnatal mothers and their babies. The WHO has developed guidelines and manuals in order to guide all countries in developing specific guidelines for use in the provision of standardized maternal care services (WHO 2009: Online). In some hospitals the documents were found missing – did the unit managers lock the policy documents away or did the managers not take time to obtain the necessary documents from the relevant offices at provincial or national level?. Inaccessibility of this policy documents will negatively impact on the provision of postnatal care as these documents are meant to direct the midwives in practice (WHO 2009: Online).

3.12.6.6 Road-to-Health charts for growth monitoring and immunisations

Nearly all the hospitals, 36 (97.30%), reported that the Road-to-Health charts for documenting weight, growth monitoring and immunisation, were available and accessible to all midwives. These are distributed by the Ministry of Health to all healthcare facilities for assessment of children younger than five years of age. These findings are in agreement with those done in 219 countries by De Onis, Blossner and Borghi (2012:142-148), which established that growth monitoring was universally implemented.

Assessing the growth of babies is important for monitoring the health status and identifying deviations from normal (De Onis *et al*. 2012:142-148). Through growth monitoring, mothers, family and the community can be made aware of the importance of nutrition in child growth and survival. This will eventually result in better child rearing practices leading to improved child health. However, it is important to note that the

benefits of growth monitoring will only be realized when the charts are well utilised and interpreted. Roberfroid, Kolsteren, Hoerée, and Maire (2005:1121-1133) point out that a shortage of personnel and the low literacy levels of mothers, has impacted negatively on proper utilisation of the Road-to-Health monitoring charts.

3.13 SUMMARY

In the first part of chapter 3, step 1 and 2 of Phase 1 is described (refer Table 3.1) and the researcher provided an extensive description of the methodology and procedures followed to gather data by means of a questionnaire and checklist. The second part of chapter 3 focused on a description of the results that were derived from the data obtained. Shortage of midwives was observed in all the 37 hospitals but it was encouraging to establish that the essential drugs were available in most of the hospitals. In Chapter 4, Phase 2 of the study is described. Phase 2 comprised of two sessions. Session 1(a), the presentation of data gathered in phase 1, as well as 1(b) a presentation by the National Reproductive Health Coordinators, are discussed. The description of session 2, a nominal group discussion, followed.

Refer Table 4.1 for the layout that will be followed in Chapter 4.

CHAPTER 4
PHASE 2: METHODOLOGY, DATA COLLECTION, ANALYSIS AND DISCUSSION

4.1 INTRODUCTION

This chapter of the study, which was undertaken after analysing and interpreting the data obtained in phase on, focusses on phase two. The purpose of phase two was to identify strategies that can be employed in Kenyan hospitals to improve the quality of postnatal care (refer Objective 2, Study Phase 2). The Nominal Group Technique (NGT) was used as instrument for data collection and this process is discussed in detail in this chapter (refer Table 4.1).

It is important to note that phase two of study was supported by the VLIR-UOS health project of the Moil University in Kenya where the researcher is employed. Travel arrangements and accommodation for the expert facilitator was met by this university through the above project. VLIR-UOS health project also funded the travel and accommodation costs for the researcher as well as for those participants coming from outside of Nairobi where the meeting was being held.

4.2 UNIT OF ANALYSIS

The unit of analysis in this phase comprises of five officers from the DRH which consists of the National Reproductive Health Coordinators as well as the Provincial Reproductive Health Coordinators from the provinces.

Table 4.1 Chapter Layout

CHAPTER	DESCRIPTION OF CHAPTER CONTENT	PURPOSE
Chapter 1	OVERVIEW OF THE STUDY	
Chapter 2	LITERATURE REVIEW	Questionnaire development Checklist development
Chapter 3	PHASE 1 Methodology Research results Discussion of results	*Step 1:* Data gathering from midwives using a questionnaire *Step 2:* Data gathering: Audit of selected hospitals using a checklist
Chapter 4	PHASE 2 *Methodology* Session 1(a): Presentation of data gathered in phase 1 Session 1(b): Presentation of data by National Reproductive Health Coordinators regarding the utilisation and services rendered at healthcare facilities Session 2: Nominal Group Technique (NGT) *Literature control*	Data gathering from the National and Provincial Reproductive Health Coordinators Literature control to support or control findings gathered through the Nominal Group Technique (NGT)

4.2.1 THE REPRODUCTIVE HEALTH COORDINATORS (RHC) AS UNIT OF ANALYSIS

The researcher utilised the Reproductive Health Coordinators (RHC) as unit of analysis to identify the strategies to be employed in order to improve the postnatal care delivery. The researcher based the conclusions on the feedback provided by the RHC.

The researcher utilised Health System Research and included the Provincial and National Reproductive Health Coordinators in the study (Trochim 2006: Online). Health Systems Research is a type of research that is concerned with improving the health of the people and communities by enhancing the efficiency and effectiveness of the health systems. It is a participatory, action-oriented form of research that ensures that the research is relevant and appropriate by focusing on priority problem areas in healthcare (International Development Research Centre 2012: Online). Health systems research has been shown to be appropriate in the development of a Framework to improve on the quality of service delivery (Barron, Buthelezi, Edwards, Makhanya and Palmer 1997:4-5).

The active involvement of the RHC in service delivery, motivated the researcher to utilise it as the unit of analysis. This step allows for the RHCs to form part of decision-making regarding solutions to the problems in the current provision of postnatal care. The National and Provincial Reproductive Health Coordinators will therefore be involved from the initial stages of the development of a proposed Framework to its end as active stakeholders (Barron, Buthelezi, Edwards, Makhanya and Palmer 1997:4-5).

The DRC, as stakeholder, was involved in ensuring ownership of the developed Framework and to assist with financial support pertaining to travel and accommodation costs of the RHC to be able to attend the NGT.

In preparation for this group discussion, the researcher worked with a representative from the DRH Headquarters to get the Provincial Reproductive National and Provincial

Reproductive Health Coordinators invited and facilitated to come to Lenana Mount Hotel in Nairobi in Kenya to attend the group discussion which took place on 26th April 2012. There were eight Provincial Reproductive Health Coordinators from the provinces, one from each of the eight provinces of Kenya, plus five officers from the DRH responsible for activities with regard to the Save Motherhood initiative.

4.3 SAMPLE SIZE AND SAMPLING TECHNIQUE

No sample was drawn as the unit of analysis was thirteen officers. All the NHCs and PRHCs were asked to volunteer to participate in the study. The participants were consulted and a time, convenient for all to attend, was agreed upon. After agreement the venue and time were communicated.

4.4 EXPLORATORY INTERVIEW

The researcher conducted an exploratory interview with the purpose of testing the research question, before the commencement of the nominal group technique (NGT). Nurse educators from Moi University School of Nursing who were not part of the study, were conveniently selected and asked to voluntarily participate in the interview. The question posed to them was: “What strategies can be implemented to improve postnatal care in Kenyan hospitals?” The participants were allowed to silently generate strategies and then were given the opportunity to mention their strategies one at a time in a Round-Robin manner. When all the ideas were exhausted, the facilitator thanked the participants for their participation. The process was stopped before the analysing and voting phase, because the purpose was only to assess whether the question was correct.

4.5 THE NOMINAL GROUP TECHNIQUE (NGT)

The Nominal Group Technique (NGT) was used to identify strategies in the development of a Framework that will facilitate the improvement of postnatal care in

Kenya. The NGT is a problem solving consensus seeking method that allows every participant the opportunity to present ideas without feeling threatened or intimidated. The technique also eliminates the influence of the researcher on the group dynamics due to the presence of an experienced facilitator. The structured group work that takes place, enables the researcher to obtain multiple inputs from all participants. It also helps people prioritise issues in solving problems or generating solutions. The NGT in this study was used to identify strategies that could be engaged to improve postnatal care in Kenya (Van Brenda 2005:2; Delbecq, Van de Ven and Gustafson 1975:33, University of Vermont 1996: Online, Centre for Rural studies 1998: Online Dobbie, Rhodes, Tysinger and Freeman 2004:402-406).

Approval from the ethics committees of the Faculty of Health Sciences of the University of Free State; the Moi University and the Moi Teaching and Referral Hospital, were obtain as well as permission from the Division of Reproductive Health (DRH). The researcher confirmed the date and the venue with the facilitator and the volunteer group members. Preparation for the Nominal Group Technique (NGT) was as follows:

4.5.1 THE VENUE

A large enough room to host sixteen people were selected. The group consisted of thirteen participants: one representative from each of the eight provinces and five officers from the DRH Headquarters. At the seating place of every participant a pencil, notepad and five index cards were placed as proposed by Dunham (1998: Online). Next to the flip cards, masking tape and different colours of marking pens were placed (Delbecq *et al*. 1975:41; Dunham 1998: Online; Taylor-Powell 2002: Online).

The chairs tables in the meeting room were arranged to form a U-shape pattern to ensure that all the participants can clearly see on a flip chart as well as the overhead projector (refer Figure 4.1). A laptop and a screen were placed at the open end of the sitting arrangement and the necessary stationery was provided (Delbecq *et al.* 1975:41; Dunham 1998: Online; Taylor-Powell 2002: Online).

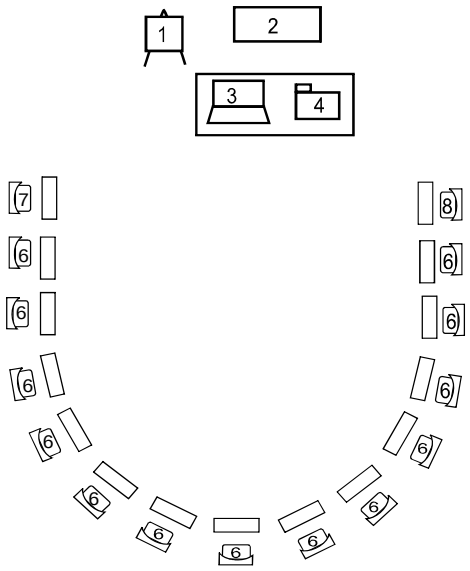


Figure 4.1 Seating arrangement for the Nominal Group Technique (NGT)

KEY: (1) Flip chart (2) Display Screen (3) Laptop (4) LCD (5) Table centrally placed on the open space of the arrangement (6) Participant (7) Researcher (8) Supervisor

4.5.2 THE FACILITATOR

An experienced researcher in the NGT was invited to facilitate the group. She was trained and had extensive experience in facilitating diverse nominal groups on a national and international level. After agreement was obtained, the researcher confirmed the date and the venue with the facilitator. The facilitator confirmed that the process, as described by Dobbie *et al.* (2004:402-406); Debold (1996: Online); Delbecq *et al.* (1975:8), will be followed.

The expertise of the facilitator in the usage of the NGT as a research method, was acknowledged. The facilitator was trustworthy and remained neutral throughout the process.

The nominal group technique was adapted to ensure that the proposed strategies of the participants will be shaped by evidence from the results (Phase 1) as well as the data available from each region.

4.5.3 NOMINAL GROUP TECHNIQUE: THE PROCESS

The researcher welcomed and introduced the facilitator to the session. A self-introduction among all participants that were present, then followed.

The facilitator welcomed the participants and explained the process, making sure that all the participants understood why this method was chosen. The purpose, rules, and steps in the process, were also explained. The researcher indicated that there will be three sessions: a presentation of the results from Phase 1 by the researcher (20 minutes); a presentation by individual participants with regard to challenges faced by every RHC in providing postnatal care (30 minutes) and the identification of strategies (2 hours).

4.5.4 SESSION I (A): PRESENTATION OF DATA GATHERED IN PHASE 1

The researcher started by disseminating the results of data gathered by means of a questionnaire and a checklist in the first phase of the study. The data included the current state of postnatal care as perceived by the midwives and the results of the audit (a summary of the results is discussed in Chapter 2). The PowerPoint presentation lasted about twenty minutes.

4.5.5 SESSION 1(B): NRHCS PRESENTATION ON UTILISATION AND RENDERING OF SERVICES

The challenges as experienced in their specific hospitals, were presented by the NRHCs. The statistics and the challenges were exhibited in the form of a PowerPoint presentation.

4.5.6 DISCUSSION: RESULTS SESSION 1(A) AND 1(B)

As a result of the presentation, it was clear that there were discrepancies between the perceptions of the midwives pertaining to the status of postnatal care, the statistics and the data presented. Surveillances by the Provincial Reproductive Health Coordinators confirmed the observation from the researcher, that the data obtained did not seem to match the statistics in practice, as well as what is seen in the clinical field. It was evident that some midwives might have completed the questionnaire without giving much thought - completed it in what they may have thought the researcher was looking for. An example of this is the fact that 136/253 (53.75%) of the midwives reported that they rated postnatal care as very important and 92/253 (36%) rated it as extremely important. Thus, 228/253 (89.75%) rated it as important. Yet statistics in Kenya, as indicated by the NHC's, proofed that the utilisation of postnatal care is only 58%.

Eighty seven (87%) per cent of the midwives indicated that they have enough theoretical knowledge to offer quality postnatal care. This perception is contradictory to, for e.g. the fact that midwives in Kenya have limited knowledge on the use of the partogram (Qureshi, Sekkande-Kigondu and Mutiso 2010: Online). Furthermore, a study done on the prevention of postpartum haemorrhage, the leading cause of maternal deaths worldwide, Kenya included, established that accurate knowledge was poor pertaining to the prevention and diagnosis of postnatal haemorrhage (Fawole, Awolunde, Adeniji and Onafowokan 2012: Online). It was therefore very important to have background knowledge regarding the current status and misconceptions before Session 3, the actual Nominal Group Technique (NGT), commenced. Having all the information prior to strategizing was important in enhancing the richness of the data that was to be obtained from the nominal group.

4.5.7 SESSION 2: THE NOMINAL GROUP TECHNIQUE (NGT)-STRATEGY

Before commencement of session 2, where the Nominal Group Technique (NGT) was used as the data collection instrument, the facilitator summarised the correct process to ensure that the participants were familiar with the rules that apply.

The information leaflet that explained the purpose of the research, was first given to the participants to read and to make sure it is understand (refer Appendix III).

Participants were requested to complete and sign the consent form to hand-in to the researcher. Participants were given the opportunity to withdraw from the study, without any penalty. Thirteen participants signed the consent form. Thereafter the Nominal Group Technique (NGT) proceeded and the steps were followed as described by Delbecq, Van de Ven and Gustafson (1975:33).

4.5.7.1 Step 1 (Silent generation of ideas)

The facilitator asked the participants to take into consideration the study results from phase 1 and the challenges presented by themselves, to write down all the strategies that they think can be employed to improve the provision of postnatal care in Kenya. The participants were informed that at this point, they were to remain silent and generate information on their own. They were allowed ten minutes to complete this exercise (silent generation of ideas). Participants were asked to put down their pencils when they were finished to enable the facilitator to see how they progress. All the participants completed the task within ten minutes.

4.5.7.2 Step 2 (Round-Robin listing of ideas)

The participants were asked to present their ideas, one at a time and in a Round-Robin manner, until all the ideas were exhausted (Taylor-Powell 2002: Online; Sample 1984: Online; Delbecq *et al*. 1975:67). The facilitator ensured that all ideas were taken into

consideration and displayed on the flip chart where all could see it. The facilitator summarised the ideas of the participants which were accurately displayed on the flip chart. This process continued until all ideas were captured on the flip chart. During the Round-Robin period, participants were discouraged to engage in discussions to ensure that everybody's unique idea was captured.

There were 33 points generated as displayed in Table 4.2.

4.5.7.3 Step 3 (Discussion of ideas listed on the flip chart)

During the third stage, all ideas generated were discussed and clarified. This created an opportunity for the participants to match similar ideas from the pool that was generated (Delbecq *et al.* 1975:8). The facilitator worked together with the participants to oversee the analysis of data. The participants developed 13 strategies from the 33 that were originally generated. The strategies were then numbered and summarised in Table 4.2.

Table 4.2 Themes, sub-themes and scores

Theme	Sub-Theme
Capacity Building	• Training of Management is needed • Formal education for an Advanced Degree in Maternal Care Services is needed • Continuous training for health care workers is required • Community health workers need health education • Community workers need training in postnatal follow up
Data Management	• All visits must be included in the reporting process of Maternal Child Health (MCH) • Documentation should be done correctly • Postnatal care should be included in the Monitoring and Evaluation Indicators in District Health Information Systems
Quality assurance	• Clients postnatal needs should be a priority • A quality assurance audit should be done • A client satisfaction survey should be

	conducted • Service performance review meetings should be held
Human resource management	• More healthcare workers must be employed • DRH should spell out the roles of RH coordinators • Ensure the harmonisation of remunerations in all the Healthcare sectors
Supportive supervision	• Supportive supervision for health care works should be emphasised • Engage the community in rendering postnatal care
Coordination of postnatal care	• Lobby for a policy to aid utilisation of midwives in maternity units • Coordinate all of postnatal care • Establish a multi sectorial approach to postnatal care • Consolidate partnerships for postnatal care
Physical resource management	• Do timely maintenance of physical resources • Ensure commodity security for maternal child services • Support health care financing using a voucher system (procurement and maintenance of equipment) • Strengthen the infrastructure and resource utilisation
Advocacy	• Use the media to market postnatal care • Advocate postnatal care with regional leaders
Strengthen integration of postnatal care within MCH activities	• Integrate all postnatal care in MCH
Dissemination of quidelines,tools and policy	• Disseminate all guidelines
Policy formulation	• Lobby for a policy to aid utilisation of midwives in maternity
Mobile phone utilisation	• Utilisation mobile phone for referral systems
Finance resource management	• Include postnatal care in quarterly implementation plan

4.5.7.4 Step 4 (Voting/ranking of priorities)

The final step included participants' ranking strategies according to their priority. Participants were also given the opportunity to vote and rate strategies. Each participant was given five cards. They had to number these cards from 1 to 5 in the right hand corner (refer Figure 4.2). Then they had to select five strategies, from the thirteen strategies written on the flip chart, that they thought were the most important ones to implement in order to improve postnatal care.

In the middle of the card, with the score of 5 written in the right hand corner, the participant had to write down the number of the strategy that was thought the most important one (refer Figure 4.2).

On the card with a score of 1, they had to write done the least important of the five strategies they have chosen. They then scored the other three strategies as 2, 3 or 4.

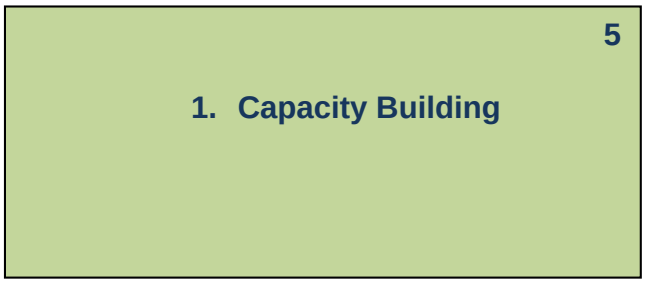


Figure 4.2 Sample of a card that was used for voting the strategies

The facilitator sorted and assessed the five cards from all 13 coordinators to make sure that every coordinator had written the requested information on the cards correctly. This was done to ensure that every participant voted for only five strategies and to prevent two strategies from getting the same vote (priority from 1 to 5). To keep the participants actively involved, volunteers were asked to count the cards (5 X 13) and to add all the cards with a "one" score, "two" score, etc. together. This process was followed to ensure that there were 13 X 1 cards, 13 X 2 cards, etc.

The facilitator, assisted by all the participants, calculated the scores for every one of the 13 strategies to make sure that each strategy was awarded their rightful score as rated. The total scores of these 13 strategies are written down in order of their priority ranking in Table 4.3.

Table 4.3 The strategies voted as the most important

Strategy Number	Six strategies voted as the five most important strategies	Marks scored
1	Capacity building	46
2	Data Management	30
3	Quality assurance	19
3	Human resource management	19
4	Supportive supervision	15
5	Coordination of postnatal care activities	13

4.6 DATA ANALYSIS

Data analysis refers to the systematic organisation and synthesis of research data which allows the researcher to reduce, organise and give meaning to data (Polit and Beck 2006: 498; Burns and Grove 2005:733; Potter *et al.* 2004:128). Analysis of data obtained through the NGT was done by the participants.

The analysis of data was done step-by-step by the facilitator together with the participants. Strategies were clustered together into ideas that form the themes.

4.7 MEASURES TO ENSURE TRUSTWORTHINESS OF RESULTS

Trustworthiness of results refers to the degree of confidence qualitative researchers have in their data and is the key principle of a good qualitative research.

Trustworthiness is of great importance in data analysis, findings and conclusions. The data will be assessed using the following criteria: credibility; dependability; conformability and transferability (Botma, Greeff, Mulauddi and Wright 2010:232-235; Nieuwenhuis 2007:113). Every one of these criteria will be applied.

4.7.1 CREDIBILITY

Credibility in qualitative research is a concept similar to internal validity in quantitative studies and is meant to check whether there is compatibility between the constructed realities that exist in the minds of respondents and those that are attributed to them (Polit and Beck 2006:498; Rossouw 2003:181-184). In this phase of the study, the researcher aspired to ensure credibility of the results by first making sure the correct participants were invited for the Nominal Group Technique session. All these participants were involved in the coordination of reproductive health services, including postnatal care, in their respective provinces. They were in the position to identify strategies that could be employed in the improvement of postnatal care in Kenya. All the participants had an equal opportunity to verbalise their ideas in a Round-Robin manner and all the rules of data collection in NGT were adhered to.

4.7.2 DEPENDABILITY

Dependability is similar to reliability and is meant to provide evidence that, if the research were to be repeated with the same or similar respondents (in this study the National and Provincial Reproductive coordinators) in the same context, similar findings would be obtained (Brink 2006:118-119; Babbie and Mouton 2003:276-278). The rules of the NGT that were explained to Reproductive National and Provincial Reproductive Health Coordinators, were adhered to in the step-by-step process. This influenced the credibility of the results and is deemed to have had a positive influence on the dependability as well. The dense description also allows for a data sequence that is very clear.

4.7.3 CONFIRMABILITY

Confirmability is the degree to which the findings are the product of the inquiry and not the biases of the researcher and is similar to objectivity in quantitative research. The manner in which the NGT was conducted aided the conformability of the results. The facilitator maintained a neutral position and acted objectively throughout the process of the NGT. All the strategies raised were captured on the flip chart for all the participants to see and the analysis of the data was undertaken by the participants themselves with no influence from the facilitator or the researcher.

4.7.4 TRANSFERABILITY

Transferability refers to the extent to which the findings of a research study can be applied to other contexts or with other participants. It is similar to external validity in quantitative research (Speziales and Carpenter 2007:48-50; Brink 2006: 118-119; Bobbie and Mouton 2003:276-278; Rossouw 2003:176-184). The researcher ensured that the data was correctly collected and the context is described in such a way that other researchers could apply the results in a similar context. The results obtained from this NGT may or may not be applicable in other settings depending on the potential users.

4.8 DISCUSSION AND LITERATURE CONTROL

4.8.1 INTRODUCTION

This discussion focussed merely on the six most important strategies identified by the NPRHCs and ranked as the priority strategies. The term strategy has been given a number of definitions but according to Nickhols (2008: Online), a strategy is “a general plan of action for achieving one’s goals and objectives”. In this study, the term strategy is used to mean the plan of action that the DRH will put in place to achieve the improvement of postnatal care in Kenya.

The ability to provide good and equitable healthcare services for all people, depends on many factors such as the performance of the healthcare system (Rockefeller Foundation 2012: Online). In recent years, however, the global health field has focused on disease and population-specific programmes with little attention paid to health systems. This has resulted in dysfunctional health service delivery and inequitable financing, especially in low resourced countries. The challenge of creating affordable and high-quality health systems is universal, but the problems encountered are especially acute in developing countries such as Kenya (Rockefeller Foundation 2012: Online).

Healthcare systems have been defined in many ways, but the most widely-used definition is “all the activities whose primary purpose is to promote, restore or maintain health” (WHO 2007: Online), also applicable to the health of the postnatal mother and baby. These activities are often grouped into service delivery, health workforce, health information systems, medical products, vaccines and technologies, health systems financing, leadership and governance (WHO 2007: Online). Health organisations have been known to commit resources to deliver powerful interventions, but have failed due to weak healthcare systems. Poor healthcare systems may be attributing to the fact that research done on healthcare systems, has been given little attention. Research of this deficit are underfunded, especially in the developing countries such as Kenya and has led to poor provision of healthcare services, including postnatal care (Remme, Adam, Becerra-Posada, D’Arcangues, Devlin, Gardner, Ghaff, Hombach, Kengeya, Mbewa, Mbizvo, Mizra, Pang, Ridley, Zicker and Terry 2010: Online). Healthcare systems which are concerned with the improvement of service delivery, need to prioritize their capacity building initiatives if progress in service delivery, e.g. in postnatal care, wants be attained. The themes (strategies) and the sub-themes (strategies placed under the main strategy) are illustrated in Table 4.3. Capacity building was ranked as the most important strategy to improve postnatal care in Kenyan hospitals.

4.8.2 CAPACITY BUILDING

The term ‘capacity building’ has been used in respect to a wide range of strategies and processes whose aim is to improve healthcare practices which are sustainable (Crisp, Swerissen and Duckett 2000:99-106). Capacity building through training, plays a vital role in improving delivery of healthcare, in both developed and developing countries (Awofeso 2012: Online). During the NGT, capacity building by training people, was ranked the number 1 strategy by the Reproductive National and Provincial Reproductive Health Coordinators.

Capacity building through training was recognise as the strategy that could cut across all levels, starting from the level of top management to the community health workers in the field of healthcare services. This training should focus on placing postnatal care in a central position in maternal and new-born care, given the fact that most of the maternal and neonatal morbidities and mortalities occur during this period (Warren, Mwang, Oweya and Kamunya 2010:24-30.).

4.8.2.1 Training of Management

Managers in any unit of clinical practice, such as maternity and postnatal units, should be more knowledgeable and skilful than the lower categories of carers allocated to those units, because the manager is often consulted on decision-making regarding patient care (Stevens 2013: Online).

4.8.2.2 Training of Midwives

The training and qualification of midwives/nurses varies from country to country, but such training need to be competency-based. Midwifery is basically a practical discipline where practice is informed by evidence, scientific principles, theoretical knowledge and

practical application (Sherratt and Tjallinks 2006:612; Kwast and Bergstrom 2001:49). It is of utmost importance that midwives are competent and possess the ability to be critical thinkers, a requisite in making informed decisions regarding patient care (Stevens 2013: Online).

Training and retraining of midwives are very essential components of capacity building due to constant and dynamic changes pertaining to patient care (Nolte 2006:4). Such training should be supported by regular clinical supervision in an attempt to improve the quality of postnatal care (WHO 2011c: Online). Quality midwifery services will result in a sustainable decline in maternal mortality (Sharma and Mavalankar 2009: Online).

Basic training of midwives in Kenya consist of a theory and clinical experience component. The theoretical component is covered in 120 hours and the students are allocated to the clinical area for a period of 36 weeks for practical experience. The 36 weeks period is divided in such a way to ensure that antenatal care, labour and delivery, postnatal and newborn care are covered.

The DRH and Nursing Council of Kenya, the body that licenses nurses and midwives to practice, should enforce and stipulated continuous professional education as a pre-requisite for midwives to renew their licences on an annual basis (Nursing Council of Kenya 2009). Midwives should work in collaboration with trained Community Healthcare Workers who are the providers of level 1 healthcare services in the rural areas of Kenya (Muga *et al.* 2004: Online).

4.8.2.3 Training of Community Healthcare Workers

The participants of the Nominal Group Technique (NGT) voted that the Community Healthcare Workers (CHWs) need to participate in postnatal care activities as part of capacity building, the most important aspect that need to be addressed. Already in 2007, the Government of Kenya embarked on the training of CHWs in an attempt to take the essential package of healthcare to the community. CHW need to be trained to

give health education in breastfeeding practices and should demonstrate competency in postnatal and neonatal assessment (Syed, Asiruddin, Helal, Mannan and Sang 2006: Online).

The community health workers in Kenya play a critical role in the provision of level 1 healthcare. They are very instrumental in educating households on issues of health and will be a great resource when trained to provide non-technical aspects of postnatal care (African Population and Health research 2013: Online).

The intention of this strategy is to support household-based caregivers through a range of Community-Owned Resource Persons (CORPs). These resource persons are the closest to the family and are called Community Healthcare Workers (CHWs). Everyone should support about 20 households. The CHWs should then be supported by a trained Community Healthcare Extension Worker (CHEW), who is a trained community health nurse and the public health officers (Ministry of Health Kenya 2007: Online). The community healthcare workers have been very successful in some regions of the country, but still battle in this regard in other areas.

The current training programme of community healthcare workers need to be reviewed to ensure aspects of postnatal care are highlighted to enable CHWs to be actively engaged in the provision of postnatal care. Both the Health Sector Reform (HSR) and the Primary Healthcare (PHC) divisions have been advocating for better healthcare for the Kenyan people through people's own active initiative and involvement. The HSR expanded community-based healthcare (CBHC) principles through decentralization of planning and service delivery. The intention was to reinforce the community's power to determine their own health priorities and link them to the formal healthcare system in order to reflect their decisions and actions in healthcare plans. In addition, it would allow participation in resource mobilization, allocation and control (Ministry of Health Kenya 2007: Online).

Non-Governmental Organisations such as the Aga Khan Foundation have, made use of community healthcare workers in Kisumu and Kwale communities in Kenya to implement primary healthcare initiatives. They managed projects and community-based efforts to increase safe water supply (HENNET 2010: Online). Training of community healthcare workers with regard to postnatal care may result in an increased utilisation of these services and decreased maternal and neonatal morbidity and mortality.

CHWs need training to provide health education to the community, e.g. to assist mothers with breastfeeding practices. If CHWs are well trained, they would be able to encourage mothers to exclusive breastfeed their babies and give counselling and support those with breast- feeding problems. Community healthcare workers would further be trained to convey the message on the importance of early postnatal and neonatal check-ups, be competent in postnatal and neonatal assessments and skilled in providing health education (Syed, Asiruddin, Helal, Mannan and Sang 2006: Online).

Capacity building through training relating to postnatal care at all levels of service delivery, has been shown to contribute significantly in enhancing the provision of postnatal care. It should therefore be employed as one of the strategies to improve postnatal care in Kenya.

Although the strategy was implemented in 2007, it has not been completely implemented in all 47 counties, some of which need to be encouraged and supported to implement the strategy. There is also a need for county government to support midwives who want to undertake further education on advanced degree level which will contribute to better provision of postnatal care (American College of Nurse-Midwives 2012: Online).

4.8.2.4 Data management

A nominal group participants were of the opinion that the management of data is a very important strategy that would be instrumental in improving postnatal care. The current

District Health Management System, which is operational in many of the healthcare facilities, does not capture essential information on postnatal care. This contributes to incomplete and inaccurate documentation of postnatal care.

To ensure that data management is well organised, all three steps, namely data collection or documentation, data analysis, and the dissemination of research findings or complied reports should be attended to (Montavalo 2007: Online). The first step, namely data collection or proper documentation, acts as a method of communication regarding care of clients/patients. It can either be in soft or hard copy and may consist of numbers, words, or images/audio-visual (Rutherford 2008: Online). In order for data to be of use in the provision of healthcare to postnatal mothers, it should be completed accurately and timely (Rayner *et al.* 2010:310-320). Documentation acts as evidence of the accountability of every health team member in the delivery of healthcare. Midwives and community health workers are expected to document patient/client care in all settings where care is being provided, e.g. in the unit, clinic or at home (Crisp *et al*. 2005: Online; American Nurses Association 2005:2). The results revealed by assessment of mother and baby plus the interventions that have been performed, should well be documented (Keenan, Yakel, Tschannen and Mandeville 2008: Online).

The second step, namely data analysis, is the process of bringing order, structure and meaning to the mass of collected data (De Vos, Strydom, Fouche and Delport 2005:333). In step three, this data can be disseminated through research reports, or the monthly, quarterly or the annual reports that are compiled and forwarded to the Ministry of Health (Kombo and Tromp 2006:110).

Dissemination of research results like the current status and challenges in the provision of services such as postnatal care, is an essential component which supply all stakeholders with relevant information. It should always be planned and undertaken as part of a research process. Dissemination of data from healthcare facilities is aimed at improving patient/client outcomes, promoting cost effectiveness and efficiency in healthcare delivery (Montavalo 2007: Online).

Data that is well captured, analysed and disseminated, serves as a basis for evaluating the quality and appropriateness of healthcare provided. Data obtained from patients' records is the prime source of information on patient's characteristics and responses to interventions and is essential in assessing the quality of care (American Nurses Association 2005: Online). Implementation of proper data management will therefore greatly contribute to improve postnatal care in Kenyan health facilities (Huges 2008: Online).

Analysis of information obtained from well managed data, assists in planning, budgeting and the construction of an evidence-based nursing/midwifery practice which is currently sought after by all healthcare professionals (Crisp, Green Lister and Dutton 2005: Online). In order to deliver quality care to clients/patients, proper planning and budgeting must be in place in such a healthcare facility. To know the number of patients/clients expected to receive specific health care, proper documentation is of the utmost importance. A proper documentation system will aid in establishing the number of personnel required, as well as the amount of material supplies and equipment needed in order to offer proper postnatal care (Crisp *et al.* 2005: Online). If properly implemented, data management would contribute a great deal in the improvement of postnatal care in Kenya.

4.8.2.5 Quality assurance

Strategies should also include a quality assurance dimension. This was the opinion of the participants who voted it as the third most important strategy. Some of the issues identified under this strategy, were quality audit, client satisfaction survey and service performance review meetings. Quality is a measure of how something is, and in healthcare delivery, it is assessed by comparing a service with the set standard which is a statement of what is expected to happen or be provided (Omaswa *et al.* 1994:12).

Quality assurance in the healthcare sector is a pledge to the public by healthcare providers that they will work towards the goal of an optimal and achievable degree of excellence in the services render to every client/patient, including postnatal mothers and their babies.

Quality assurance related to postnatal care is aimed at improving maternal and neonatal outcomes (Galadanci, Kunzel, Shittu, Zinser, Gruhl and Adams 2011:23-28). Quality assurance, performed in healthcare facilities, depends on three parameters: quality infrastructure; quality process and quality outcome. Quality infrastructure includes the conditions that exist in a hospital related to the buildings and environmental sanitation. Quality process depend on infrastructure, to a smaller extent, and on skilled and experienced personnel, e.g. midwives. Quality outcome depends on both quality infrastructure and quality process (Geladanci *et al.* 2011:23-28). Prioritising of patients' needs is an important aspect of quality assurance and entails doing the right thing at the right time. Quality assurance for postnatal care requires of midwives to be competent and efficient in the provision of postnatal care (Offei, Bannerman and Kyeremeh 2004: Online).

Quality care is a form of interaction between a healthcare provider and a patient/client or between the health services and the community (Van der Walt, 2004: 3). The emphasis in quality assurance is on improving the process by which the services are driven; this strategy has been adopted by many developing countries in order to increase client satisfaction with rendered services (Omaswa *et al.* 1994:27). There has been an increasing emphasis on the individual's right to quality healthcare, including reproductive and sexual health and the obligation of individual members of the healthcare team to be held accountable to the public for the type of care they provide (Sadik 1997:739-744).

One method to monitor quality, is to make use of a client/patient satisfaction survey which is a snapshot of how a client is viewing services at that point in time (Glick 2009:368-377). Before embarking on client/patient surveys, the healthcare facility need

to work on cultivating an environment that embraces quality improvement in services (White 1999:40-44). Client satisfaction is a multidimensional concept, relating to both technical and interpersonal aspects of care, and the amenities of care (such as an attractive physical environment, and convenient location and parking). A client's assessment of quality, expressed as satisfaction or dissatisfaction, could therefore be remarkably detailed pertaining to any or all the above mentioned aspects (Frattali 1991: Online).

After undertaking a patients' satisfaction survey, feedback is given to the healthcare providers and improvement projects are organised around those comments or scores. It is important to celebrate success to ensure that efforts will be undertaken to maintain it in future. A quality audit survey has the potential of providing useful information on determinants of consumer satisfaction. Quality auditing is an aspect of quality assurance that, if employed, is likely to improve healthcare provision, including postnatal care.

Service performance review meetings should be undertaken after the feedback from the patients' survey has been received. Performance review meetings are one ways to established whether healthcare facilities have achieved the expected outcomes of quality assurance. These meetings are designed to ensure that personnel are aware of and participate in all quality related functions, changes, updates, revisions and verification activities. During such meetings, personnel members may set their own standards on what sort of care they would like to offer their clients in form of quality assurance, and suggest ways they consider feasible in the improvement of postnatal care (Marjolein and Harnmeijer 2006: Online).

Quality assurance is better addressed when continuous assessments are conducted to identify the needs and wishes of women and families with regard to postnatal care. These steps will enable the midwives to plan and implement proper care for postnatal mothers and their babies (Royal Australian and New Zealand College of Obstetricians and Gynaecologists 2014: Online). An example of a needs assessment during the

postnatal period is that of establishing whether or not the mothers felt that they were given enough information regarding self-care and that of their babies during the postnatal period. Findings from these continuous assessments would be used to develop educational materials to empower the postnatal mothers regarding self-care and that of their babies. The participants in the study were of the opinion that a quality assurance audit should be done periodically in the postnatal units. A quality audit is an aspect of quality assurance that entails a review of the patient/client record designed to identify, examine, or verify the performance of certain specified aspects of nursing/midwifery care by using established criteria. It is a systematic, critical analysis of care provided and is concerned with quality (Salam, Lassi, Das and Bhutta 2014: Online). A quality audit should cover aspects like procedures, diagnosis, treatment, and usage of resources. If an audit indicated a specific healthcare problem, solutions are suggested, implemented and a re-audit is undertaken to assess whether or not there has been any improvement of care and how the improved care can be sustained (Daly 2008: Online).

Strategies that might improve quality postnatal care should therefore include the development of an audit instrument to utilise for quality assurance audits (Salam, Lassi, Das and Bhutta 2014: Online).

The emphasis in quality assurance is in the improvement of care, e.g. postnatal care, in order to improve client satisfaction (Pund and Sklar 2012: Online). The participants were of the opinion that strategies to improve postnatal care, should include a client satisfaction survey. This survey should focus on the satisfaction of the postnatal mother regarding the postnatal care that she received. The survey should also identify elements of patient satisfaction that should be evaluated, including technical skills of the healthcare providers, interpersonal relationships and the social and moral aspects of care (Al-Abri and Al-Balushi 2014:3-7).

4.8.2.6 Human Resource Management

Human resource management, together with quality assurance, was voted as the third strategy and scored 19 points each. Human Resource Management (HRM) is the function within an organisation that focuses on recruitment, management and provides direction to employees in the organisation. HRM is the organisational function that deals with issues related to people, e.g. compensation, employment, performance management, organisation development, safety, wellness, benefits, employee motivation, communication, administration and training (Heathfield 2007: Online).

HRM is also viewed as a strategic and comprehensive approach to manage employees, the workplace culture and environment. Effective HRM enables employees to contribute effectively and productively to the overall organisation. This would ensure the accomplishment of the goals and objectives of the organisation (Heathfield 2007: Online). HRM, when referring to healthcare, incorporates the different kinds of clinical and non-clinical personnel responsible for public and individual health intervention. The performance the system can deliver, depend largely upon the knowledge, skills, attitude and motivation of those individuals responsible for delivering health services (Kabene *et al.* 2006:1-17).

HRM is the key element in the provision of healthcare services. According to Marjolein and Harnmeijer (2006: Online), qualified and motivated human resource is essential if adequate and quality healthcare services are to be offered in any healthcare setting. In many healthcare systems worldwide, there is an increased attention focused on HRM, because of its role in the success of any healthcare organisation. Effective HRM is a fundamental principle of health systems performance (Mogasale, Wi, Das, Kane, Singh, George, and Steen 2010:83-88). Human resources is one of the three principle health system inputs with the other two major ones being physical capital and consumables (Kabene *et al.* 2006:1-17).

Selecting and retaining personnel is crucial to the success of any organisation. Talented employees, who continue to develop their skills and contribute to the value of the organisation, are the most important resource (Heathfield 2007: Online). The healthcare

service industry is undergoing a lot of changes, including new means to motivate and retain employees in their respective disciplines within the organisations. One way of understanding and motivating individuals is by revisiting the Abraham Maslow Hierarchy of Needs which has, and continues to be used, in the understanding of human behaviour. In the work setting, Maslow has the same five levels of the basic human needs as in the traditional model (Benson and Dundis 2003:315-320).

The first basic need that should be satisfied, is that of the wages. Maslow states that if an individual believes that s/he is well remunerated, s/he will not spend time and energy thinking about their salaries; instead, s/he will strive to be more productive. On the other hand, if an individual does not believe that s/he is paid a fair wage, s/he will spend too much time contemplating his/her perceived inequity and not give his/her work the attention it deserves. Furthermore, there is a correlation between the traditional Maslow model and that found in the work environment, because the basic needs such as food and shelter are obtained through the wages that one deserve (Benson and Dundis 2003: 315-320; Ayobami 2011:1-9).

Having secured adequate wages, the next that need perceived as important, is that of job safety. This includes the physical and mental safety in the working environment, including no anxiety of the likelihood of losing one's job (Benson and Dundis 2003:315-320). Chaudhry, Sabir, Rafi and Kalyar (2011:1-14) are of the opinion that personnel sometimes equate their salary satisfaction with their job safety, therefore the more they are satisfied with their salary, the higher the perception of their job safety. Other important aspects under job safety, include pension schemes, medical allowance and sick leave. Individuals may choose to be productive in a certain job, because of the above mentioned packages.

The third need identified, is that of social-belonging in the workplace. Individuals seek pleasant working relationships with co-workers and peers by organising them into formal and informal groups. Some employees, however are sometimes under great pressure in their workplace and do not have time for social activities (Benson and

Dundis 2003:315-320). Satisfaction of these needs is also achieved through interaction with colleagues and clients/patients, which in the case of the midwives, will be interaction with postnatal mothers and their significant others. Teamwork also enhances the sense of social-belonging in the workplace.

The fourth need focuses on self-esteem, where the individual seeks to be competent, confident and assured. This level covers aspects such as one's reputation, recognition and appreciation from colleagues, supervisors and even junior personnel.

The final need is that of self-actualization where one feels even more confident in the work environment. This is the stage where an individual comes to the realization of their full potential and it is at this point that Maslow states, "Duty becomes pleasure and pleasure is merged with duty" (Benson and Dundis 2003:315-320).

When midwives are motivated from the first step where their basic needs are met, to the fourth step where providing postnatal care is their pleasure, then postnatal mothers and their new-borns will get the quality services they deserve. Human resource crisis in developing countries, like Kenya, has been brought about by acute shortage of personnel. According to Dogba *et al.* (2012), the shortage of midwives is the greatest impediment to proven strategies in the fight against maternal and perinatal mortality.

The health systems of sub-Saharan Africa have been negatively affected by the migration of health professionals to the developed countries such as America and Canada where they are assured of better salaries and working conditions. Naicker, Plange-Rhule, Tutt and Eastwood (2009:60-64) have reported that there are 57 countries with a critical shortage of healthcare workers, especially shortage of doctors and nurses. Africa has 2.3 healthcare workers per 1,000 people compared with a ratio of 24.8 healthcare workers per 1,000 people in America.

These shortages have now reached critical levels in many resource-poor settings, especially in rural areas where most of the population in the LMICs live. Key factors

responsible for the shortage of nurses/midwives at service delivery points in Kenya, include: fast-expanding healthcare delivery network; inadequate recruitment; mal-distribution (where many nurses/midwives are in the cities and the rural areas are understaffed); nurse/midwife shortage; an aging nursing workforce where a high number of nurses/midwives are retiring in comparison to the amount of new employees (Rakuom 2010: Online)

Strategies aimed at improving the performance of the healthcare sector, should address shortages of the existing workforce by giving incentives to those allocated to difficult areas, e.g. the North Eastern Province of Kenya (Naicker *et al*. 2009:60-64). It is worth noting that during phase 1 of the study, where the researcher visited 37 hospitals, midwives complained of an extreme shortage of personnel. The researcher agreed, based on observations made during visits to selected hospitals. The same problem was voiced by the Reproductive National and Provincial Reproductive Health Coordinators during the NGT. Urgent addressing of this issue should be indicated as one of the priority strategies to be implemented in order to improve postnatal care in Kenya.

4.8.2.7 Supportive Supervision

Supportive supervision was voted strategy number 4 and scored 15 points. Supportive supervision is a process that promotes quality at all levels of the health system by strengthening relationships within the system. This process aims at identifying and solving problems arising from service delivery. Supportive supervision enhances sustainable programme management by encouraging two way communication as well as planning and monitoring program activities (PATH 2003: Online).

On-going supervision is an important, but sometimes disregarded step, in ensuring quality services. Supportive supervision is a participatory process, unlike the traditional visits which focused only on inspection and fault finding. A study by Manongi, Merchant and Bygbjerg (2006: Online) has revealed that the healthcare workers often complained

that their supervisors overly concentrated on negatives aspect instead of focusing on problem solving to improve performance.

The cornerstone of supportive supervision in the health sector is dealing with healthcare personnel to establish goals, identify and correct problems, monitor performance and proactively improve the quality of services. The supervisor, working in collaboration with the supervisee, addresses the identified problems on the spot to prevent negative routine practices (Darj 2003:2847-2851). Supportive supervision also provides an opportunity for the managers or supervisors to recognise good practices and help the healthcare workers to maintain their high level of performance (PATH 2003: Online). Evidence has shown that there are benefits that result from supportive supervision. Midwives and other healthcare providers, knowing that they could be supervised at any time, strive to provide the best care they can to their clients/patients.

In an effort to standardize supervision, a comprehensive supervisory tool is put in place to be used for all supervisory visits. The supervisory tool should be utilised in the feedback session that should took place on the spot (Mogasale *et al*. 2010:83-88). A study done in Kenya by JHPIEGO (1999) to assess supportive supervision on a sample of districts, has confirmed that supportive supervision lack standardized tools for supervision and that some supervisors lacked supervisory knowledge and skills. The crucial element to consider is training or updates on supportive supervision in order to improve service delivery (JHPIEGO 1999: Online). It was evident during the NGT that data collection tools, relating to postnatal care, need to be improved. This would ensure that the required information can be obtained during the supervisory visits and be used to plan and improve care given to mothers and their new-born babies during the postnatal period.

4.8.2.8 Coordination of Postnatal care activities

Coordination of postnatal care activities was voted as the fifth strategy in the improvement of postnatal care. Coordination is defined as “the deliberate organisation

of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services'' (McDonald, Sundaram and Bravata 2007: Online).

Coordination of care involves the art of organising and mobilizing personnel and other resources required to carry out all patient care activities. Effective coordination is achieved when proper communication exist among participants responsible for different aspects of care, such as postnatal care (McDonald, Sundaram and Bravata 2007: Online) Efficiency and effectiveness of coordination depends on the match between the needs of the population and the skills and scope of practice of services providers. In this study it is midwives and other health care providers that render postnatal care (Looman *et al.* 2013: 293-303).

Coordination of healthcare service delivery to include postnatal care, needs to be strengthen given that the Kenyan healthcare system has been decentralized and operates on six levels of care (Ndavi, Ogola, Kizito and Johnson 2009: Online).

Level I involves community-based healthcare services that are essential in the re-introduction and provision of new concepts of primary health care activities. This level provides preventative and promotive health care and strengthens referral systems (Wafula, Abinya, Karanja, Kaseja, Musoke and Ogendo 2009: Online). The other levels are: Level II -dispensaries; Level III - Health centres; Level IV - district and sub-district hospitals; Level V - provincial and regional hospitals; Level VI - the national and referral hospitals (Wafula *et al*. 2009: Online).

Proper coordination of services with guidelines for appropriate care expected at each of the levels, should be clearly indicated to facilitate the realization of the Kenyan essential package for health. Postnatal care need to be integrated into the existing primary health care services to ensure proper implementation of quality care to the postnatal mothers and their babies. Well-coordinated postnatal care is beneficial in ensuring that the community members are well informed in matters relating to postnatal care, e.g. causes

of maternal and neonatal health problems during the postnatal period and the contribution of local customs and believes to these problems. When coordination is well undertaken, concerns by community members, relating to postnatal care, are properly channelled to the policy makers at County and National Government and may positively influence postnatal care delivery (Wafula *et al*. 2009: Online).

The Kenyan Ministry of Health works in collaboration with a number of non-governmental organisations, such as UNICEF, USAID and DANIDA in delivery of maternal services both at national and county levels. Such working relationship requires further coordination among partners or stakeholder as to clearly spell out the obligation of each of the stakeholders. When proper coordination is undertaken, duplication of services will be avoided (Health Sector Programme support Phase III 2012: Online). Coordination of postnatal care among all the stake holders is crucial in the improvement of postnatal care at all levels of service delivery (Health Sector Programme Support Document 2012: Online).

4.9 SUMMARY

The methodology of phase 2, which explained the identification of strategies that can be employed to improve postnatal care and the literature control on the strategies, was presented in chapter 4. Capacity building, data management, quality assurance, human resource management, supportive supervision and coordination of postnatal care services were identified as most important strategies.

The development of the Framework (Objective 3, Study Phase three) which was accomplished by triangulating data from phase one and two will be the focus in Chapter 5.

.

CHAPTER FIVE
PART I: FRAMEWORK DEVELOPMENT

5.1 INTRODUCTION

This chapter discusses Phase 3 of the study which consists of steps in the development of the Framework aiming at the improvement of postnatal care in Kenya. Phase 3 is discussed in two parts. Part one contains the steps followed in the development of the Framework and part two is the endorsement thereof. In Chapter 5, the researcher will discuss the manner in which the Health Systems Research was utilised in the development of this Framework. An explanation of how these two phases of the study, namely Phase 1 – the determination of the current state of postnatal care in Kenya and Phase 2 - the identification and prioritising of strategies to improve postnatal care, have contributed to the development of this Framework (refer Table 5.1). The researcher used The Theory of Change Logic Model to assist in this process, because this model proved to be useful in the identification and description of the factors that would affect the compiling and implementation of programmes (Kellogg Foundation 2004:27). This model was also used in the identification of resources required in the development of the Framework (Kellogg Foundation 2004:27).

Findings from Phase 1 (data from the questionnaire and checklists on the challenges regarding the provision of postnatal care) as identified by the Provincial Reproductive National and Provincial Reproductive Health Coordinators, was one of the key components considered in the development of the Framework. Other key components were the information obtained from a literature review and the strategies identified by the Reproductive Health coordinators in Phase 2.

Table 5.1 Thesis and chapter layout

CHAPTER	DESCRIPTION OF CHAPTER CONTENT	PURPOSE
Chapter 1	OVERVIEW OF THE STUDY	
Chapter 2	LITERATURE REVIEW	Questionnaire development Checklist development
Chapter 3	PHASE 1 Methodology Research results Discussion of results	*Step 1:* Data gathering from midwives using a questionnaire *Step 2:* Data gathering: Audit of selected hospitals using a checklist
Chapter 4	PHASE 2 *Methodology* Session 1: Presentation of data gathered in phase 1 Session 1(a): Presentation of data by National Reproductive Health Coordinators regarding the utilisation and services rendered at healthcare facilities Session 2(b): Nominal Group Technique (NGT) *Literature control*	Data gathering from the National and Provincial Reproductive Health Coordinators Literature control to support or control findings gathered through the Nominal Group Technique (NGT)
Chapter 5	PHASE 3 Literature review on Framework Development Draft Framework developed Validation of draft Framework Final Framework	Development of the Framework To present Framework to all NRHCs and PRHCs for validation

5.1.1 FRAMEWORK DEVELOPMENT

A theoretical Framework strengthens a study in a number of ways, e.g. it connects the researcher to the existing knowledge, critically evaluating theoretical assumptions and identify key variables that may influence a phenomenon (Labree 2013: Online). Researchers can also use a Framework to test hypothesis, especially in substantial studies in which it has proved to be if value (Hammerschlag-Peyer, Yeager, Aranjo and Layman 2011: Online). In this study, the Framework was used as a theoretical guide that give meaning to the research findings, evaluate what is known in current postnatal care in Kenya, as well as indicating, describe and explain what needs to be implemented and tested through further research (Lunney 2008:28; Doran and Sidani 2007:3).

A Framework aid in organising ideas, reach consensus, make conclusions and understand a situation or event through valid clarification and the careful structuring of knowledge that is developed from theoretical work and from theories (Lunney 2008:28). When a Framework is developed from research findings, it assists organisations or health care programs with knowledge, the prioritising of activities as well as the allocation of resources which will improve patient care (Doran and Sidani 2007:3-17). Healthcare organisations or ministries of health that use Frameworks in the delivery of services, are more likely to create an understanding between stakeholders on their respective obligations in the delivery of services that could positively impact and shape the implementation of services such as postnatal care (WHO 2007: Online).

To enable the researcher to develop a Framework that will be owned by the relevant stakeholders involved in postnatal care in Kenya, the Health Systems Research was utilised because this type of research enhances the efficiency and effectiveness of health systems (Remme *et al.* 2010:1-3). HSR is also concerned with health policies, organisations and programmes which health ministers, policy makers and service managers design in to assist with important decisions on planning and organising health systems. The participatory, action-oriented nature of HSR ensures that research is

relevant and appropriate by focusing on priority problem areas in healthcare delivery systems (Horowitz, Robinson and Sarenas 2009:2633-2642). The **inputs** (human, material, physical, fiscal and managerial) were assessed and taken into consideration. The **processes** in the systems model referred to the steps that are required to bring about the desired outputs, in this case, the strategies that were identified by the nominal group participants in the study. These participants, as vital stakeholders, were the Provincial Reproductive Health Coordinators who played a vital role in the development of the Framework. The important **outputs** were the policies, guidelines, the planned training, etc. that were envisaged and audited. As previously described in Chapter 1, the last step in the systems model, namely its impact, will only be observed over time.

After all the data gathered in Phases 1 and 2 of this study, was analysed (refer to Table 5.2 as a short summary) the researcher used the Theory of Change Logic Model in developing the Framework which should be implemented to improve postnatal care in Kenya.

Table 5.2 Data on findings of Phases 1 and 2

Results from Phase 1: Questionnaire and Checklist	Identified strategies during Phase 2: The Nominal Group Technique
Shortage of Midwives and incomplete orientation	Human resource management
	Supportive supervision
Inaccessibility of policies and guidelines	Quality assurance
Insufficient knowledge and lack of continuous education	Capacity building
Influence of cultural and religious beliefs	
	Data Management
	Coordination of postnatal care

It is a valid fact that Health Systems Research formed an integral part of the development of the Framework as discussed below.

5.2 HEALTH SYSTEMS RESEARCH

Health Systems Research is concerned with health policies, organisations and programmes which health ministers, policy makers and service managers utilised when making important decisions on the planning and organisation of health systems, delivery and financing of healthcare (Rime *et al*. 2010:1-3). The participatory, action-oriented nature of research ensures that the research is relevant and appropriate by focusing on priority problem areas in healthcare delivery systems (Horowitz, Robinson and Arenas 2009:2633-2642).

Importantly, HSR focuses on better means of studying the interrelationship of health systems and service delivery with the purpose of improving the quality of healthcare in both public and private institutions (Block *et al.* 2012:67-88; Rime *et al.* 2010:1-3). It addresses a wide range of questions, including health financing, governance, planning and the management of human resources. The ultimate goal of HSR, is improving the health of people and communities by enhancing efficiency and effectiveness of the healthcare system (Koehlmoons *et al*. 2010: Online).

Health systems in the Low and middle income countries (LMICs), Kenya included, need to be strengthened to enable such countries to improve on the provision of healthcare. Weak healthcare systems in LMICs have further been blamed for delays in the accomplishment of the health-related Millennium Development Goals (MDGs) (Pearcy 2010: Online). In the 63rd World Health Assembly, it became evident that efforts to accelerate progress towards attainment of MDGs 4 and 5, a gender-sensitive approach that prioritises the health of women and children, need to be adopted (Pearcy 2010: Online).

The World Health Organisation (WHO) has collaborated with countries on different levels of development in order to strengthen health systems and to improve on healthcare delivery. Health Systems Research (HSR) was used to measure performance and disseminate findings on 'what works and why' (WHO 2007: Online). The WHO functions by making use of the six blocks to improve on health systems in respective countries (WHO 2007: Online). These block are the following:

- good health services
- well performing health workforce
- well-functioning health information system
- medical products, e.g. vaccines, technologies
- health financing
- leadership

In this study, the adoption of Health Systems Research (HSR) allowed the researcher to offer policy options to the national and Provincial Reproductive Health Coordinators who are major stakeholders in the provision of postnatal care. The HSR assisted the national and Provincial Reproductive Health Coordinators, to identify strategies and to address the challenges facing provision of postnatal care. The active involvement of the national and Provincial Reproductive Health Coordinators from the initial stages of developing the Framework, cultivates a sense of ownership. The national and Provincial Reproductive Health Coordinators were also actively engaged in the identification of challenges facing the provision of postnatal care, proposing strategies to address the identified challenges and justification of the proposed Framework.

Health Systems Research is a participatory action-oriented research which ensures that the research is relevant and appropriate by focusing on priority problem areas in healthcare delivery systems such as postnatal care. (Horowitz, Robinson and Sarenas 2009:2633-2642). The Reproductive Health coordinators positively responded to the invitation to attend the Nominal Group Discussion which indicates that they deemed postnatal care an important component of maternal care.

5.3 THEORY OF CHANGE LOGIC MODEL

The diagram of The Theory of Change Logic Model is used to discuss the model and how it was applied in the study (refer Figure 5.1). A logic model presents a picture of how a certain effort or initiative is supposed to work. It explains why a strategy is a good solution to the problem at hand, e.g. the improvement in postnatal care provision (Milstein and Chapel 2012: Online). This logic model is a systematic and visual way of understanding the relationship among the resources required to operate a programme, the activities to be undertaken and the results that the programme hopes to achieve (Kellogg Foundation 2004:1). In this study, the logic model serves as a planning tool to develop programme strategies and enhances the ability to clearly explain and illustrate concepts to the participants (Reproductive Health coordinators) (Kellogg Foundation 2004: 1).

The Theory of Change Logic Model is divided into three approach models, namely the theory approach model - also referred to as conceptual model; the outcome approach model and the activity approach model - also referred to as the applied model. These models are utilised according to what needs to be achieved and where in the course of programme one is at a given moment.

A combination of these models is sometimes utilised (Kellogg Foundation 2004:8-9). Outcome approach models are used mainly when the emphasis is placed more on programme evaluation (Fettling 2007:5; Kellogg 2004:10; Whole, Harry and Newcomer 2004:11). The activities approach models focus most on the actual implementation processes of a programme.

The Theory of Change Logic Model describes the casual linkages that are assumed to occur from the start of a project to the goal attainment. These logic models are graphic representations of a programme showing the intended relationships between the investment and the results (Parchman and Howard 2011:576-582; Taylor-Powell and Hebert 2008:4; Hayes and Fettling 2007:5). This model was found suitable to form the

theoretical background of the Framework. The Logic Model of Change is useful in providing explanations or reasons for exploring an idea for a given programme. This model links activities and effects and at the same time has the appropriate degree of detail for the purpose used. A logic model also includes forces known to influence the desired outcomes (Milstein and Chapel 2012: Online) (Refer Figure 5.1, number 3). The Logic Model of Change sometimes has additional information that specifies the problem or issue that the programme hopes to address. It may also give a description of the reasons for choosing certain types of solution strategies (Refer Figure 5.1, number 5), connections between proven strategies to potential activities, factors influencing the programme together with the assumptions that the participants hold - which could influence the effectiveness of the programme (Taylor-Powell and Henert 2008:15; Kellogg Foundation 2004:9). The linkage of the components of this model, guided the participants in conceptualising and planning as well as enabled them to focus on the problem and reasons for suggesting specific solutions. This model also focused on the 'big picture' while showing how every one of the components functioned to bring about success based on this relationship (Frechtling 2007:9; Kellogg Foundation 2004:9). The 'big picture' this study focuses on, is the postnatal care delivered by midwives in Kenyan hospitals.

The participants in this study were national and Provincial Reproductive Health Coordinators from both the Division of Reproductive Health at Headquarters and the former eight provinces of Kenya. During the Framework development, these coordinators participated during the presentation of challenges faced in the provision of postnatal care – Phase 2, derived from their field experience and literature on evidence-based practice to arrive at the desired results (Kellogg Foundation 2004:30) The inputs of these participants in the study were of great value and essential in the development phase, because these coordinators are relied on for the implementation of the Framework. Furthermore, Health Systems Research is a participatory form of research (Barron *et al.* 1997:7).

In Figure 5.1, a template of the Theory of Change Logic Model indications of the various components and the way it is linked, provides better understanding.

The problem or issue (1) describes the problem that the programme intends to solve. The Theory of Change Model is built on this problem statement and illustrates how the programme will function to improve on the care provided to postnatal mothers in Kenya. Data specifying the community needs (2) (in this study the results of phase one and two) or assets linked to the problem assist in the clarification of the problem and the need for a programme to address this community needs (Kellogg Foundation 2004:31). The identified problem, supported by related literature, enabled the participants to identify the desired results (3) of the programme. The researcher, using evidence, informed the participants of possible influential factors (4) that could either facilitate or hinder the programme and how such factors might influence the desired results. Having stated the problem, identified the community needs and the expected outcomes, the next step in the logic model is to focus on strategies (5) that were voted as most important in the improvement of postnatal care and have proven successful or effective in other communities (Kellogg Foundation 2004:28-32). The last component is the assumptions why the chosen strategies will work (6). In this study, the components of the model are not described in detail, but the researcher is of the opinion that the connections, identified by the arrows, will assist the participants/readers in conceptualising and articulating how the components relate and demonstrate the existence of interaction (Fretting 2007:42).

In most cases, inputs are placed on the far left side with the arrows pointing to the results on the right side. This may display to the readers that the model follows a left-to-right progression which is not always the case. In the majority of cases, however, the development of the logic model begins with the results working both back and forth and up and down as the model is being created. This consequently has made some people to prefer logic models as web formats rather than the linear depiction (Freching 2007:90).

Having discussed the Theory of Change Model, which formed the theoretical background of the Framework development, the next section will give an explanation on how the draft Framework developed, using results obtained from Phases 1 and 2.

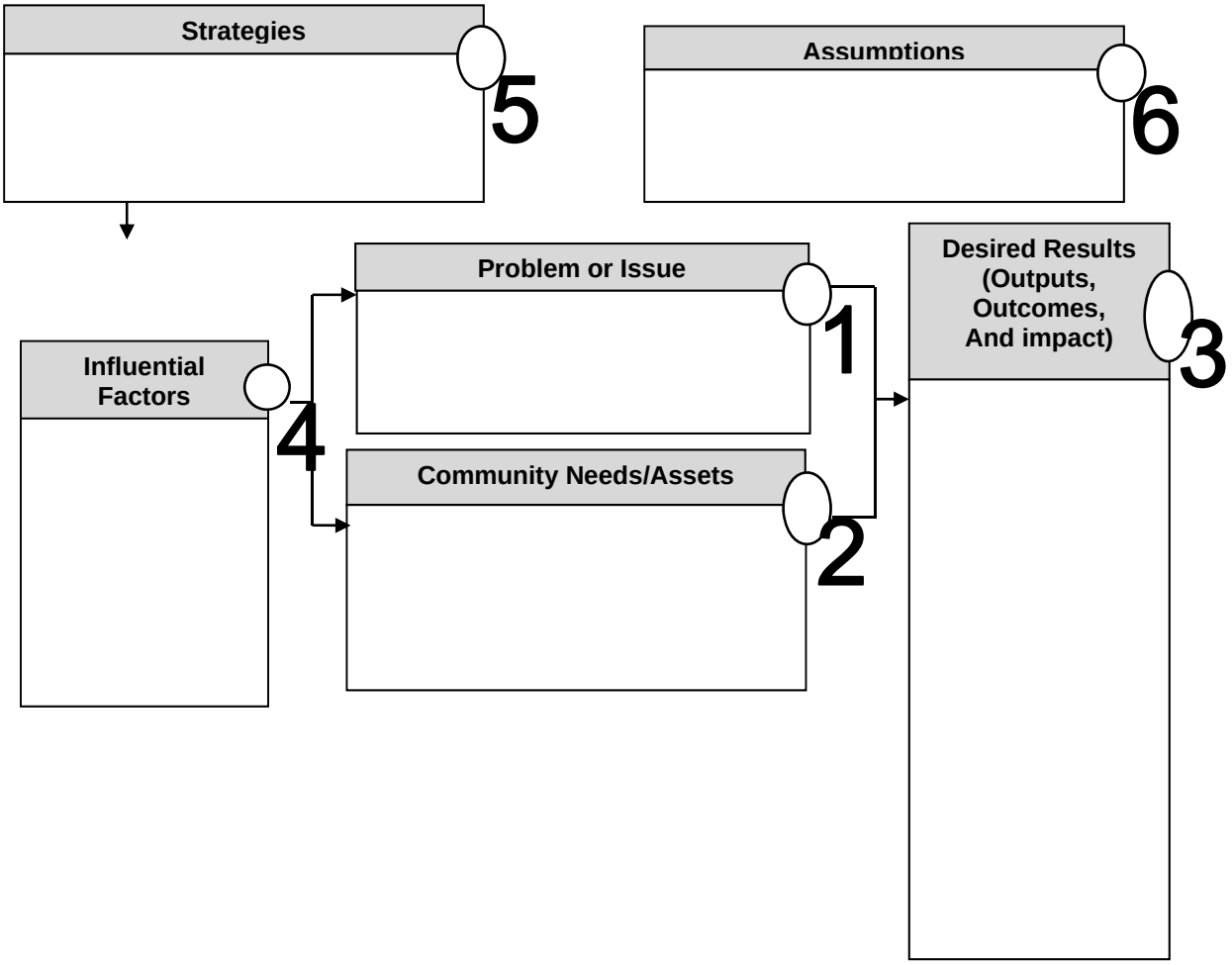


Figure 5.1 Theory of Change Logic Model template (Kellogg 2004:28)

5.4 THEORETICAL UNDERPINNING

The Logic Model of Change is widely been used successfully by policy makers in various sectors, including health programmes. This model assists in identifying factors that will affect the programme and enables people to anticipate the data and resources required to achieve success (Frechtling 2007: ix; Kellogg Foundation 2004:27). Also in this study the Theory of Change Logic Model was utilised to develop the Framework for

improving postnatal healthcare provided in Kenya. It aided in both the programme design and planning (Kellogg Foundation 2004:9), therefor it was the model suitable to form the theoretical Framework of this study. Highlighted in purple, is the component of the logic model as described at each given step by the researcher.

5.4.1 PROBLEM OR ISSUE: NEGLECTED POSTNATAL CARE (1)

The Logic Model of Change reveals a picture of how an organisation functions and provides an idea of how a certain programme is explored by formulating questions as illustrated in Figure 5.1. The starting point in applying this model, was to identify the problem to be addressed (refer Figure 5.2, number 1) which was neglected postnatal care as identified by the researcher through a review of postnatal care literature and unpublished reports on provided care to postnatal mothers at the Moi Teaching and Referral Hospital.

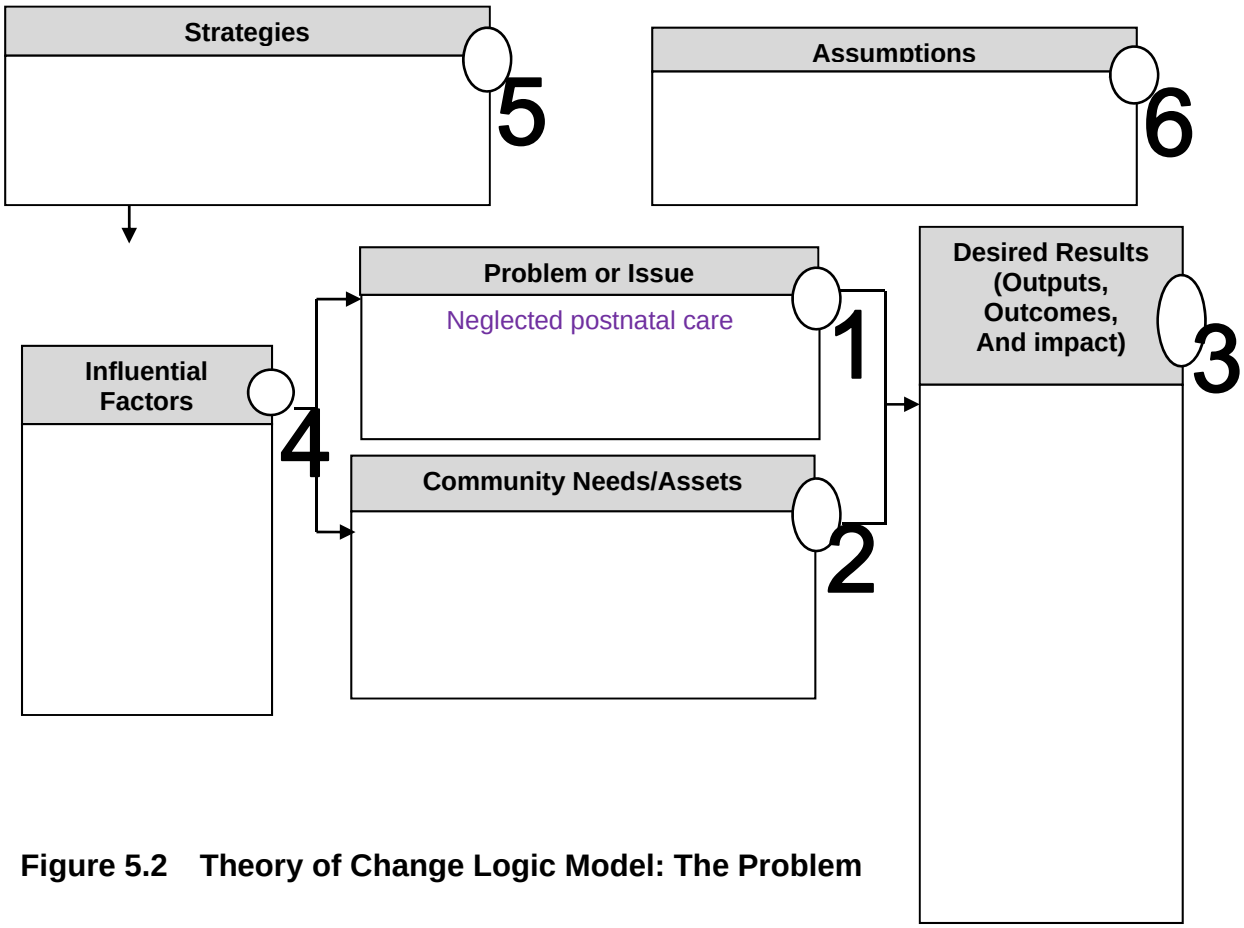


Figure 5.2 Theory of Change Logic Model: The Problem

Having identified the problem that needs to be addressed, the next step in the model comprehend the needs of the community.

5.4.2 COMMUNITY NEEDS: EMPIRICAL FOUNDATION OF THE FRAMEWORK (2)

Information used to develop the Framework, derived from a literature review, data from a questionnaire completed by midwifes, a checklist completed by the researcher and problems faced in the provision of postnatal care presented by the National and Provincial Reproductive Health Coordinators, were highlighted. This information was a presentation of the needs of the community (Figure 5.3, number 2). The community, as far as this study is concerned, is the Division of Reproductive Health charged with the provision of postnatal care.

Having identified the problem and established the community needs, the next step was to focus on the expected results of the programme or the vision for the future (Kellogg Foundation 2004:31).

5.4.3 DESIRED RESULTS: OUTCOMES, OUTPUTS AND IMPACT (3)

The short and long term outcomes, planned outputs and possible impact of the programme are the desired results in this Framework (Kellogg 2004:14, 24, 31). These desired results are the perspectives of the researcher which were subject to changes when the participant's suggestions are incorporated at the validation meeting. Active participation of these participants is critical to the success of the programme hence the need to incorporate their input (Frechtling 2007:22-24; Kellogg Foundation 2004:6), and the need to validate the draft Framework. The following desired results (Figure 5.4, number 3) were identified by the researcher after incorporating all data gathered in Phases 1, 2 and were subject to amendments when suggestions from the stakeholders were incorporated.

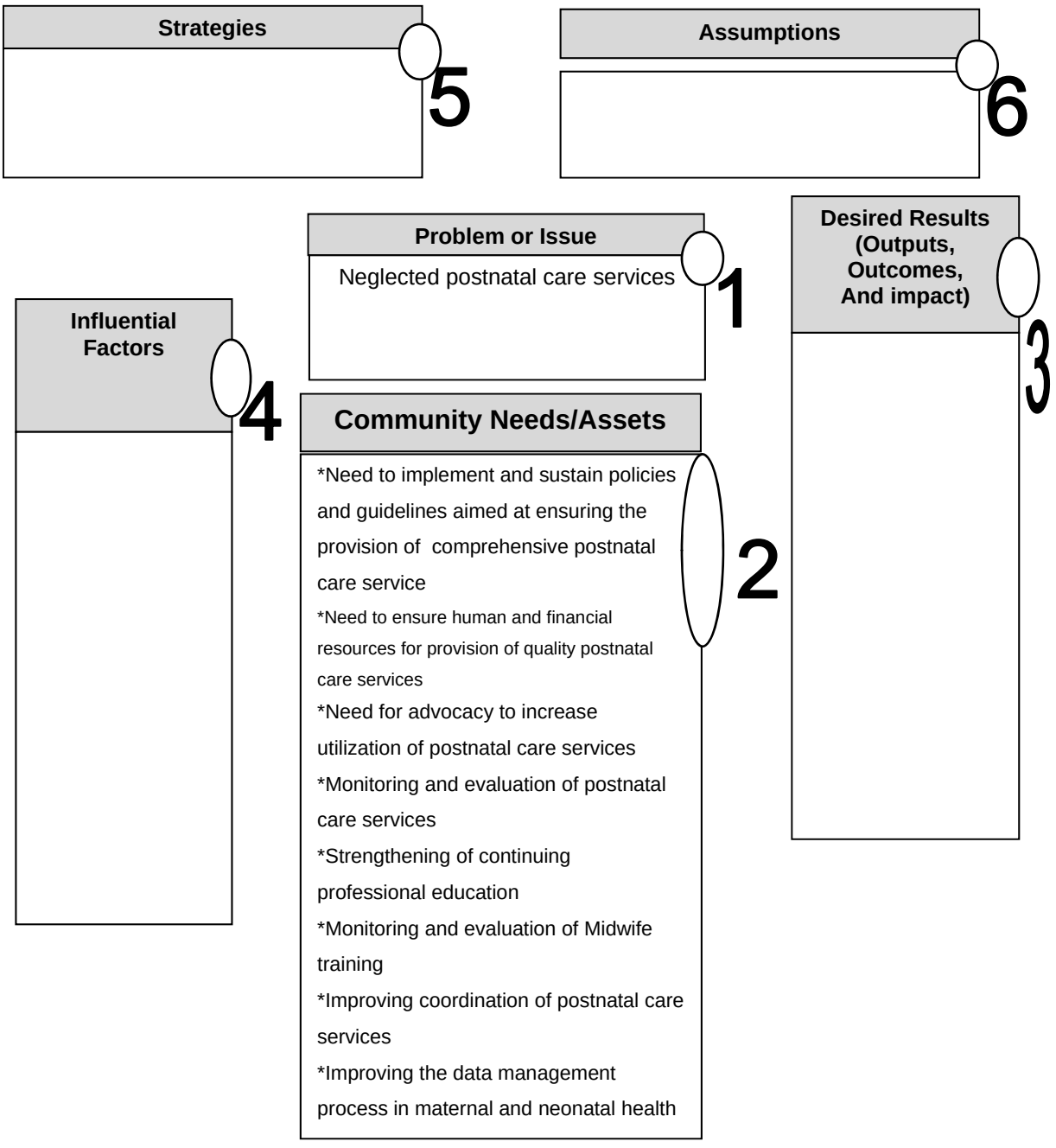


Figure 5.3 The community Needs (2)

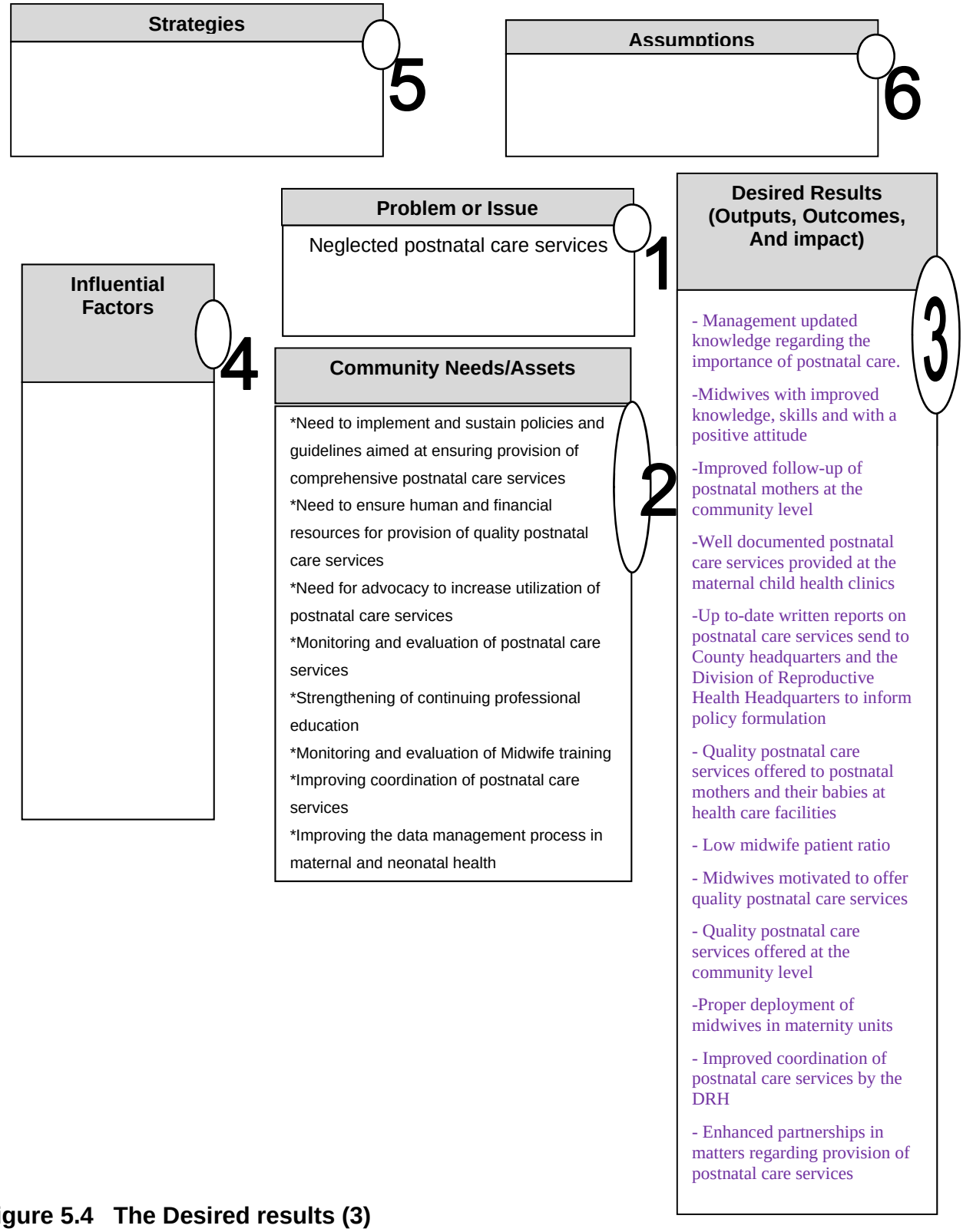


Figure 5.4 The Desired results (3)

5.4.3.1 Hospital management: Knowledge about the importance of postnatal care

Managers in any organisation play a critical role and often determine the success or failure of programmes running within that organisation (Birken, Lee, Weiner, Chin and Schaefer 2012:29-45). The managers facilitate and control the allocation of both human and physical resources for the running of programmes, e.g. postnatal care (Parker, Kirchner, Bonner, Fickel, Ritchie, Simons and Yano 2009:229-242). Well informed and knowledgeable managers would deploy a sufficient number of midwives required to provide quality postnatal care to mothers and babies. This will positively affect the healthcare facilities at all levels. As a result of such enhanced knowledge, managers would be more committed in the provision of equipment and material supplies required by the midwives in order to render these services (Parker *et al.* 2009:229-242).

When managers participate in continuous professional education regarding postnatal care, they are more likely to facilitate improved services at their healthcare facilities and in the community. Efforts aimed at improving and sustaining high level postnatal care would be supported. Frequently trained managers acquire updated knowledge and information that would guide decision-making in matters concerning postnatal care delivery. Information gaps are one of the greatest barriers in running programmes successfully, hence the need to have managers who are trained and knowledgeable (Birken *et al.* 2012:29-45).

5.4.3.2 Midwives with improved knowledge, skills and a positive attitude

Midwives are the major providers of postnatal care in Kenya, especially at the public health facilities where the majority of women receive postnatal care (Turan *et al.* 2008: 588-95). The current care provided by these midwives can be improved with enhanced knowledge, skills and a positive attitude. One of the Provincial Reproductive Health Coordinators voiced the following: “According to my opinion, midwives need more

knowledge and better skills to provide quality postnatal care to mothers and their babies".

Midwives who possess such qualities are termed as competent and when such midwives are utilised to provide postnatal care, the care provided to the mothers and their new-borns, is likely to be improved (UNFPA 2011a: Online). Improvement in the knowledge, skills and attitudes of the midwives may be achieved through proper graduate nursing education and then though continuous professional development to incorporate new developmental skills. The Division of Reproductive Health (DRH) should disseminate evidence-based practices to all the counties through the County Health Departments (Kronborg *et al.* 2012:289-301; Galvin, Smith, Sorum and Ellefsen 2010:3051-3062). This can only be implemented if the nurses/midwives participate in research and utilise the research findings. County Health Departments in the 47 counties will ensure that new knowledge is disseminated to all maternity units in all the healthcare facilities through workshops and continuous professional education sessions.

5.4.3.3 Improved follow-up of postnatal mothers at the community level

Postnatal follow-up visits in the community, after the mother and baby have been discharged from a hospital facility, is a strategy aimed at meeting the needs of the family (Kronborg, Vath and Kristensen 2012:289-301). These visits in the community have been associated with prolonged breastfeeding, prevention of neonatal adverse outcomes, prevention and early detection of postnatal depression and a maternal sense of security (Galvin, Smith, Sorum and Ellefsen 2010:3051-3062; Kronborg *et al.* 2012:289-301; Vath Ossen, Iversen and Harder 2007:1064-1070). These visits contribute to positive postnatal outcomes and the accomplishment of Millennium Goals number four and five.

Mothers should have confidence that their health and that of their new-born babies, are well monitored by a midwife or other competent practitioner (Persson, Fridlund, Kvist

and Dykes 2011:105-116). Improving the postnatal follow-up service in parenting can contribute to the identification of high risk mothers' health needs in order to ensure healthy families and communities.

5.4.3.4 Documentation: Maternal and Child Health Clinics

Documentation is an essential component of a professional midwife's practice and is as important as medical documentation. Documents can be hand written, printed or stored in audio-visual systems, depending on the manner of implementation according to hospital policy and the available resources (Johson *et al.* 2010:832-845). Documents can become evidences in a case of litigation and therefore accurate records regarding patients care should be kept – what is not written, are seen to be not done. Documentation of the care provided to postnatal mothers and their neonates is essential for national surveillance as well as research related to postnatal care (Brandford, Cardnas, Camach-Car and Lydon-Rochelle 2007:540-548).

Well documented and analysed data will assist in the identification of priority areas for improvement based on the data collected. Central and county governments can use this data in planning and budgeting for quality services as well as supplying adequate material supplies and equipment needed (Robert 2013: Online). Furthermore, the use of analysed data will identify sufficient amounts of midwives to be appointed and deployed to offer quality postnatal care in healthcare facilities. The information needed for quarterly and annual reports required by the Department of Health and the Ministry of Health Headquarters from every healthcare facility, will be accurate and available when services provided, are well documented.

5.4.3.5 Reports on postnatal care to inform policy formulation.

Reports on the types of services offered at the healthcare facilities are compiled from data generated at the various service delivery points. Data on postnatal care for mothers were obtained from postnatal clinics and those for their babies from child

welfare clinics. Data must be timely, accurate and complete to facilitate the writing of reports that would add value to decision-making at all levels of healthcare delivery (WHO 2008: Online). Well documented statistics and relevant data will be of assistance in formulating policies to improve postnatal care.

5.4.3.6 Quality postnatal care

Quality care encompasses many aspects of healthcare delivery when attending to a patient/client. Apart from the service rendered, quality also entails a range of issues such as communication and interaction between the patient/client and the provider of care (Beksinka *et al.* 2006:386-393). Quality of services provided at healthcare facilities has greatly influenced the utilization of healthcare (Dhaka *et al.*2007: Online). Provision of quality postnatal care depends on competencies of midwives together with the availability of material supplies and equipment needed for such provision of health care (Geladanci *et al.* 2007: Online).

According to Simbar, Ghafari, Zahrani and Hamid (2009: Online), poor quality of maternal healthcare contributes to maternal morbidity during the postnatal period and a large proportion of maternal deaths can be prevented if women received timely and quality care in the postnatal period.

In Kenya, improvement of care during the postnatal period would be enhanced by the dissemination and implementation of policies and guidelines for quality postnatal care. Inversely, lack of clear policies and guidelines has been cited as a factor responsible for inadequate postnatal care (Mrisho *et al.* 2006: Online). DRH and the Department of Health at the county governments (as stated in the introduction, the Kenyan government operates on two levels, namely the national and the county governments - every one of these 47 county governments has their individual health departments) should ensure proper dissemination and implementation of postnatal policies and guidelines.

5.4.3 7 Midwife-patient ratio

The Nursing Council of Kenya, a body that regulates midwifery practice, recommends one midwife to five patients. This recommended ratio, however, has almost not been attained in Kenyan healthcare facilities (Nursing Council of Kenya 2012:15). Currently, a ratio of one midwife to more than ten patients is frequently observed in many of the healthcare facilities, especially in the rural areas of Kenya. This high midwife-patient ratio has negatively impacted on the provision of quality care to postnatal mothers and their new-borns. Furthermore, a great majority receive no postnatal care from a competent practitioner (Sandall *et al.* 2011: Online). A lower midwife-patient ratio, where mothers and their new-borns receive individualised attention, contributes to quality postnatal care which is a critical component of quality care (Shekelle 2013:404-409). This lower ratio of provider/patient has been associated with patient safety and better health outcomes (Shekelle 2013:404-409; Brandt 2005:20).

To achieve one to five ratio, or even better, will call for the commitment of both the country and central governments in employing and deploying adequate amounts of midwives in postnatal care units.

5.4.3.8 Motivated midwives

Motivation of midwives to offer quality postnatal care, is an important anticipated result of the Framework. Motivation is influenced by a number of factors, but many studies have cited job stress and burnout, poor working conditions, low salaries, poor staffing, lack of supportive supervision and opportunities for career advancement, as main demotivating factors (UNFPA 2011b: Online; Curtis, Ball and Kirkham 2006:27-31). Motivated midwives are more likely to provide quality care to postnatal mothers and their new-borns, thus reducing the risk of complications.

(

Inversely, unmotivated midwives may offer substandard care resulting in poor maternal and neonatal outcomes UNFPA 2011b: Online). It is also expected that unmotivated

midwives will leave midwifery practice for other careers within the healthcare profession or exit the healthcare profession altogether (UNFPA 2011b: Online; Zuyderduin, Obunis and McQuid 2010:419-425; Curtis, Ball and Kirkham 2006:27-31). In doing so, these midwives contribute to an even further increase in the ratio of patient/nurse. Midwives that exit midwifery practice is regularly observed in countries like Kenya. Successful completions of midwifery training also includes registration in general nursing and community health which makes it easier for midwives to work in other healthcare departments (UNFPA 2011b: Online).

5.4.3.9 Quality postnatal care at community level

s

In 2007, the Kenyan government, through the Ministry of Health, expanded the community based healthcare strategy through decentralisation to enable citizens to determine their health priorities (Population Council and UNFPA 2007: Online). In this context, the community midwifery approach was established making use of retired or unemployed midwives residing in communities. These midwives were trained to assist in the provision of home-based care during a delivery, essential neonatal care and postnatal care in their respective communities.

The community-based healthcare strategy, however, has not been entirely effected in many regions of Kenya due to a number of factors, e.g. insufficient human resources (Olayo, Wafula, Aseyo, Loum and Kaseje 2014: Online). Community involvement in postnatal care should be strengthened by motivating the community members and involving them in decision-making regarding the provision of postnatal care (Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:17). Programmes have been run successfully where community members are involved in the planning, resource mobilisation and control of such activities. Moreover, postnatal care offered at community level are more likely to be affordable hence increasing its utilisation.

5.4.3.10 Deployment of midwives in maternity units

Ensuring that maternity units are adequately deployed with the appropriate number of motivated and skilled midwives, is one of the desired results in the Framework. Maternity units that have adequate midwife/patient ratios will be beneficial to the patients (postnatal mothers and their babies), the midwives themselves, the hospital and the entire community (National Patient Safety Agency 2006a: Online; Ellis *et al.* 2006: Online). Inadequate numbers of midwives were reported in all the hospitals involved in Phase 1 of this study. The researcher also observed a shortage of midwives during the data collection period in all hospitals visited, which impacted negatively on the provision of proficient postnatal care.s

The DRH, in collaboration with all the hospital management teams in the countries, should strive to have their maternity units properly deployed with an adequate number of midwives. If successful in this deployment, it will improve the postnatal care provided to mothers and their new-borns. With an adequate number of midwives allocated to maternity units, community midwifery could be enhanced by deploying midwives from maternity units to assist the community midwives in follow-up visits to the mothers and to provide the much needed postnatal care.

5.4.3.11 Coordination of postnatal care

In Kenya, the Division of Reproductive Health (DRH) coordinates all the Safe Motherhood programmes, including postnatal care. With the implementation of the County government, the DRH, in collaboration with the county health departments (these health departments are in charge of health services, including postnatal care at county level while the DRH operates at national level) in every county should ensure the delivery of maternal care services. In order to achieve optimum service delivery, proper coordination of postnatal care needs to be established and maintained. Currently, there exist insufficient coordination between different healthcare providers in the health sector and links between programmes are weak (Warren *et al.* 2006: Online). DRH and the

county governments should come up with methods of enhancing coordination of services and healthcare providers to connect the insufficiently trained healthcare workers and specialists when the need arises (Norman, Barbara, Stekelenburg and Milen 2011:622-626).

Postnatal care provision will further be improved when effective coordination exists between the community and healthcare facilities. Postnatal women in some of the Kenyan communities are not allowed to leave their homes until 40 days after giving birth. In order to be able to access postnatal care of mothers after delivery in such communities, will imply that the healthcare providers need to take their services to them in their homes (Warren *et al.* 2006: Online).

5.4.3.12 Partnerships regarding the provision of postnatal care

The Ministry of Health, through the DRH, requires coordination and partnerships with the private sector, development partners, civil society, local leaders and the local communities in implementing effective postnatal care (Wafula *et al.* 2009: Online). Such partnerships are deemed necessary in mobilising the required resources for the provision of quality services.

The Ministry of health in Kenya has relied on partnerships with NGOs, faith-based organisations and the private healthcare providers in the provision of healthcare services, including the postnatal care (USAID 2013: Online). Some of the organisations in partnership with the Ministry of Health, include the World Bank, UNFPA, UNICEF and WHO (Lehmann *et al.* 2011: Online). These partnerships are beneficial in the enhancement of technical expertise and have assisted in funding some health projects, including postnatal care (Wafula *et al*. 2009: Online).

Development partners (World Bank, UNFPA, UNICEF and WHO) have assisted the Ministry of Health in formulating new polices and developing effective and efficient financial mechanisms intended to achieve a well-functioning healthcare system (Kenya

Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:5). The existing partnerships need to be enhanced to enable both the Ministry of Health at national level and the health departments in county governments to deliver quality, equitable and affordable services to all Kenyans (Constitution of Kenya 2010:31).

In order to achieve the desired results, factors exist that may have a positive or negative influence on the improvement of postnatal care delivery. The researcher identified these factors with compartment 4 of the Logical Model, as the most influential factors in the development of a Framework for the improvement of postnatal care delivery in Kenya.

5.4.4 INFLUENTIAL FACTORS (4)

Influential factors are potential challenges or opportunities that might impede or facilitate the expected change needed to improve (Kellogg Foundation 2004: 30). These factors were derived from literature and the researcher's perspective, but were subjected to change with the input from the participants (National and Provincial Reproductive Health Coordinators) during the validation meeting. The possible factors (refer Figure 5.5), are briefly discussed below, although, not in order of priority.

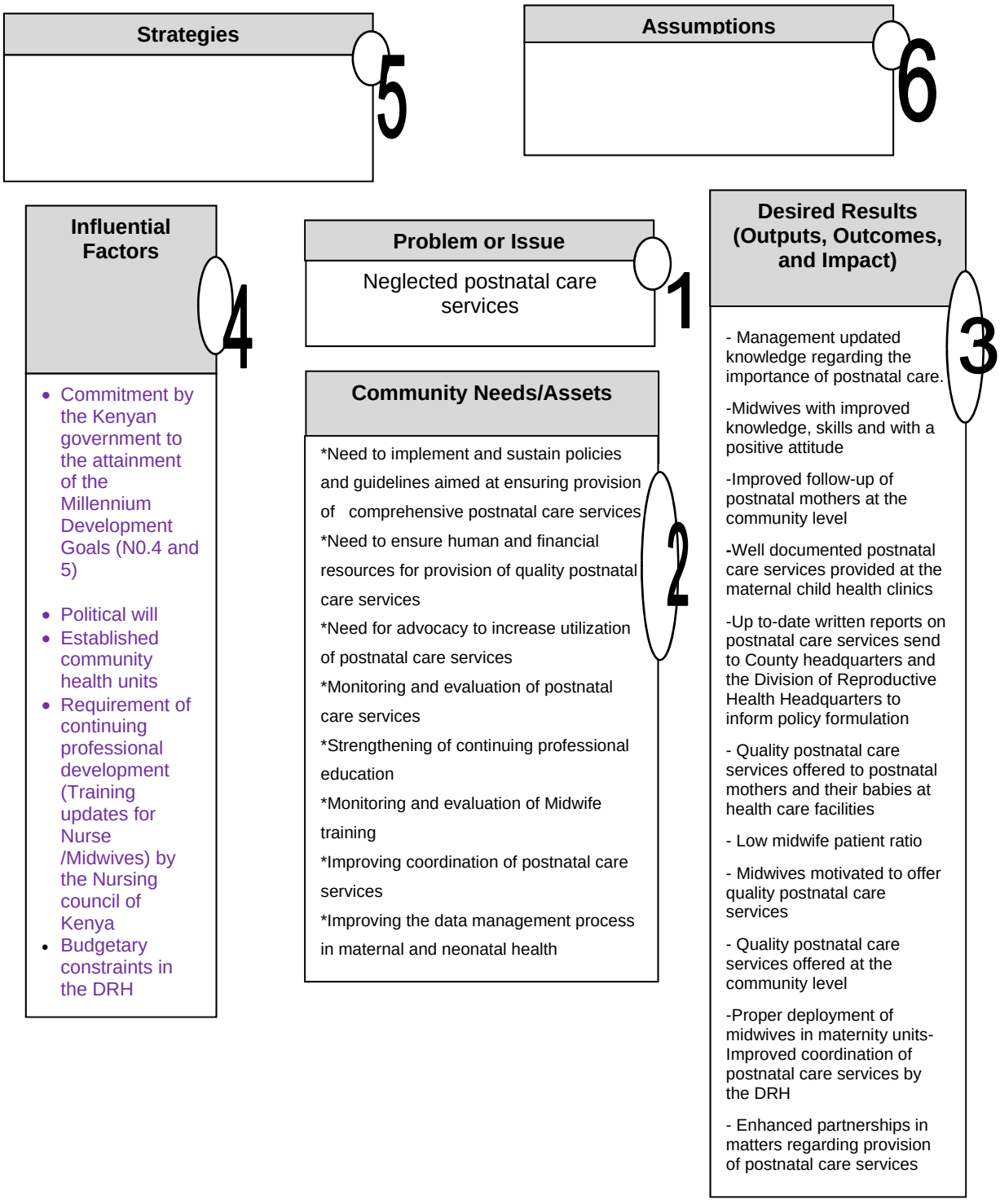


Figure 5.5 Influential Factors

5.4.4.1 Attainment of the Millennium Development Goals 4 and 5: Commitment by Kenya Government

The Kenyan government is committed to the attainment of the Millennium Development Goals number 4 and 5 which are the reduction of child mortality by 2/3 and maternal mortality by 3/4 by the year 2015 (Kenya Service Provision Assessment 2010:15). This commitment is evidenced by the fact that all the health coordinators were sponsored to be present and to take part in the development of the strategies during the Nominal Group discussion (the researcher, through the VLIR project, sponsored their participation in the Nominal Group discussion). The strategies, to accelerate the achievement of the two goals, have been developed by the DRH and distributed under the Kenyan New-born Health Model (2009). The services under this model, are: Family Planning and Pre-Pregnancy care; Focused antenatal care; Essential Obstetric Care; Targeted Postpartum care and Post Aortal care (Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:15). The Framework to improve postnatal care strategies would contribute towards the attainment of these two goals with postnatal care focus on both mother and baby. Most morbidities and the mortalities occur during the postnatal period (WHO 2011a: Online).

5.4.4.2 Political wills

Political will is defined as the desire of society and the commitment to support or modify old programmes. Political will is a critical factor in the success of any project or programme (Lezine and Reed 2007:2010-2013). This study relied upon the adoption and implementation of the developed Framework to improve the care provided to postnatal mothers and their babies. The Kenyan government with the implementation of the new constitution, has a mandate to provide Kenyans with the highest attainable standard of healthcare that was not provided in the previous constitutional dispensation (Constitution of Kenya 2010:31).

The 2010 Constitution of Kenya has devolved the running of most of the programmes to the county governments, except those of the two referral hospitals. Devolution of health services, to include postnatal care, are expecting support in the provision of improved services in the counties while still working with the DRH on national level.

Many partners in development, such as the United States government agencies through the Global Health Initiative strategy, are working with the Kenyan government through the Ministries of Health to improve on the care provided to mothers and their new-borns. The focus is mainly on three areas, namely health system strengthening, integrated service provision and demand creation.

5.4.4.3 Established community health units

The Kenyan government reorganised health care service delivery into six levels with the community level as Level 1. There is no health care facility in Level 1, but only the community health workers who visit the community members at home and offer services as required or refer the patients to the dispensaries which are known as Level 2. Level 1 or the Community Unit consists of 5,000 people and are served by 25 community healthcare workers. A community healthcare worker serves twenty households or hundred people (Ministry of Public Health and Sanitation and Ministry of Medical Services 2009:19). The community health nurse and public officers from the healthcare facility in the specific area, are the supervisors of the community healthcare workers that have rendered the services (HENNET 2010: Online).

Community healthcare workers are also used in other healthcare projects in Kenya. Non-Governmental Organisations (NGOs) have increased the utilisation of services (HENNET 2010: Online). It is envisioned that through this strategy, households and communities will be actively involved in projects to improve their own healthcare status, including postnatal care.

5.4.4.4 Continuous professional education: Nursing Council of Kenya

A factor that will positively impact on the quality of postnatal care, is the implementation of continuous professional education as required by the Nursing Council of Kenya. Every practicing nurse/midwife in Kenya must attend a total of at least 20 hours of continuous professional education annually in order to retain their license to practice. The licence is renewed every three years, requiring at least a total of 60 hours of education (Nursing Council of Kenya 2012:16). All nurses/midwives must be re-licensed to keep them on the register of the Nursing Council of Kenya that legalise their professional practice.

Continuous professional education will contribute to obtaining the required knowledge, competencies and a positive attitude to provide evidence-based quality healthcare to postnatal mothers, their neonates and their families.

The Kenyan health sector is underfunded and this has created a challenge for health service delivery (KIPRA 2013:47). Although improvements in budgetary allocations have been made, a lot still needs to be done (Ministry of Public Health and Sanitation 2009: 61). The recurrent funding for health development is now at 2% and the public per capita health spending on it in the year 2010/2011 was 12.6%, which is very low compared to the WHO recommendation of 44% (KIPRA 2013:47). This low level of funding by the Kenyan government is also way below the Abuja Declaration by the African Heads of States which targeted the expenditure at 15% in the year 2000 (Ministry of Public Health and Sanitation 2009:61; Ministry of Public Health and Sanitation 2008:72-73).

Adequate funds will be required to pay salaries to midwives as well as to pay for the necessary material supplies and equipment necessary in the provision of postnatal care as well as the other reproductive healthcare services. If there is inadequate funding, it means that the Government may not be able to recruit and deploy midwives to maternity units (Ministry of Public Health and Sanitation 2009:61). Budgetary constraints

should be addressed by the county government in collaboration with the central government to enable the implementation of the Framework for the improvement of postnatal care services. Having identified and discussed the influential factors above, the next component in the Theory of Change Logic Model, are the strategies.

The strategies component in the Theory of Change Logic Model used in this study are those identified by the national and Provincial Reproductive Health Coordinators during the NGT. These strategies and expected results were described in Chapter 4 and are presented in Table 5.3 below.

Table 5.3 Strategies and Desired Results

STRATEGY	EXPECTED RESULTS (OUTPUTS, OUTCOME AND IMPACTS)
1 Capacity building - Conduct management training - Establish continuous training for healthcare workers - Initiate health education programmes for community members involving both genders - Undertake training on postnatal care follow-up by community health workers - Increase opportunities for advancement in maternal healthcare education -	- Hospital management has updated knowledge regarding the importance of postnatal care. - Midwives have improved knowledge, skills and enhanced positive attitudes - Improved follow-up postnatal mothers at the community level
2 Data Management - Include postnatal visits in the reporting process of MCH - Improve documentation, monitoring and evaluation of all maternal and neonatal indicators in District Health Information Systems	- Well documented postnatal care provided at the maternal child health clinics - Up-to-date written reports on postnatal care send to county headquarters and the Division of Reproductive Health headquarters has informed policy formulation.

3 Quality assurance - Prioritise quality assurance audit of client's post-natal needs - Conduct service performance review meetings and client satisfaction surveys	- Quality postnatal care offered to postnatal mothers and their babies.
4 Human resource management - Employ more healthcare workers - DRH to clearly spell out roles of RH coordinators - Harmonisation of remuneration in the health sector - Provide incentives for people working in deprivation areas - Approve scheme for service to midwives	- Midwife and patient ratio lowered - Midwives motivated to offer quality postnatal care
5 Supportive supervision - Render supportive supervision to midwives - Promote community engagement in the provision of postnatal care	- Quality postnatal care offered at community level
6 Coordination of postnatal care	- Improved coordination of postnatal care - Enhanced partnerships in the provision of postnatal care

5.4.5 STRATEGIES (5)

Strategies are best practices that are deemed helpful in achieving the expected results which, for this study, is improved postnatal care. The strategies described below were identified by Reproductive Health Coordinators in Phase 2 of this study (refer Figure 5.6, number 5).

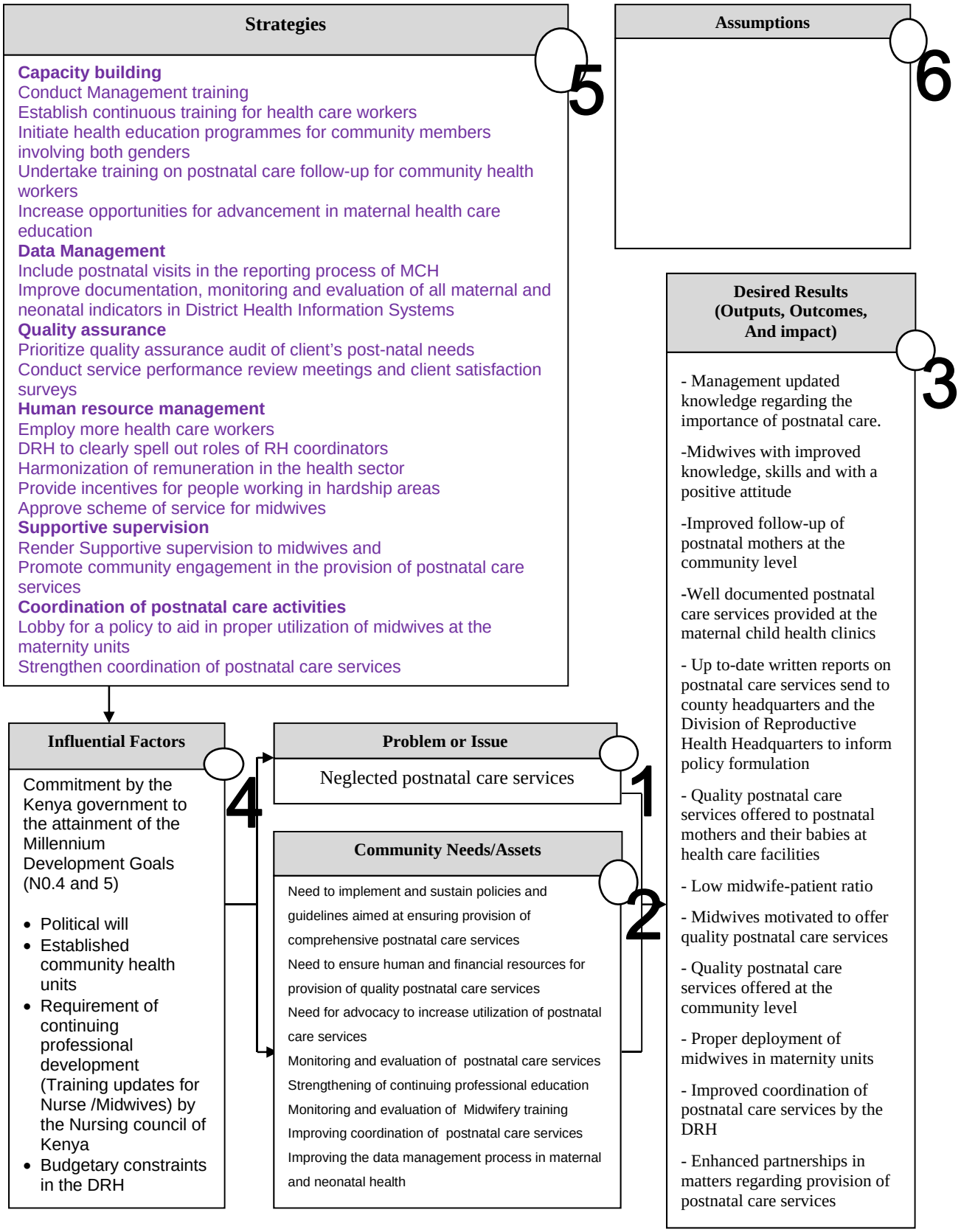


Figure 5.6 Strategies

5.4.5.1 Capacity building

Capacity building through training was ranked the priority strategy to improve postnatal care. Capacity building was brought up as a strategy that could cut across all levels, starting from management at the top, to the community healthcare workers in the field. The proposed training should focus on placing postnatal care as an integral component of maternal care, given the fact that most of the maternal and neonatal morbidities and mortalities occur during this period (Warren, Mwang, Oweya and Kamunya 2010:24-30).

The county governments, in collaboration with the DRH, should ensure that this strategy (capacity through training) is implemented by ensuring that a sufficient budget is available to cater for regular in-service training and continuous professional education programmes for midwives in their counties. Such training should equipped midwives with improved knowledge, skills and positive attitudes towards the provision of quality postnatal care. Trainings for those healthcare providers in management should be organised to update the managers on important issues regarding postnatal care. The Directors of Health in all counties should plan and implement trainings for community healthcare workers to have them prepared to render the non-technical aspects of postnatal care in their communities.

5.4.5.2 Data management

Data management was voted as the second strategy that would be instrumental in improving postnatal care. It was evident during the discussion that the current data collection tool of the District Health Management System which is operational in many of the health care facilities, does not capture essential information on postnatal care. This means that documentation of postnatal care is incomplete and inaccurate. The DRH should develop a tool to capture all visits to the maternal child health clinics, including postnatal care. If the visits and the rendered services are well documented, accurate reports will be send to the DRH and County Headquarters for analysis. This

will support the government in monitoring and evaluation as well as proper planning of resources to render postnatal care.

5.4.5.3 Quality assurance

Quality assurance related to postnatal care is aimed at improving maternal and neonatal outcomes (Galadanci, Kunzel, Shittu, Zinser, Gruhl and Adams 2011:23-28). Quality of care encompasses many aspects during an encounter with a patient/client and the quality of services provided at the health care facilities, has been identified as a factor that has a great influence on the utilisation of healthcare services (Beksinka *et al.* 2006:386-393). The participants were of the opinion that quality assurance would be guaranteed if patients' needs were audited, performance review meetings held regularly and patients' satisfaction surveys contacted. When the above measures are put in place at the health care delivery points, the quality of care rendered to postnatal mothers and their babies at these health care facilities, would be improved.

5.4.5.4 Human Resource Management

Human Resource Management (HRM) is the function within an organisation that focuses on recruitment and personnel management. This strategy was voted priority 3 together with quality assurance. HRM is the organisational function that deals with issues related to people, such as compensation, employing, performance management, organisation development, safety, wellness, benefits, employee motivation, communication, administration and training (Heathfield 2007: online).

HRM is also viewed as a strategic and comprehensive approach to managing people, the workplace culture and environment. The participants identified a number of activities pertaining to this strategy to include employment of more midwives, spelling out clearly the role of the Reproductive Health Coordinators, harmonization of remunerations in the health sector and giving incentives to those midwives working in destitution areas. The participants were of the opinion that when this strategy is employed, a low midwife-

patient ratio would be established and midwives would be motivated to provide quality postnatal care.

5.4.5.5 Supportive Supervision

Supportive supervision is a process that promotes quality care at all levels of the health system by strengthening relationships within the system. Supportive supervision aims at identifying and solving problems arising from service delivery. Supportive supervision enhances sustainable programme management by encouraging a two-way communication as well as planning and monitoring programme activities related to postnatal care (PATH 2003: online).

Unlike the traditional supervisory visits which focused only on inspection and fault finding, supportive supervision focuses on problem-solving to improve performance while at the same time enhancing a better working relationship and a conducive working environment (Manongi, Merchant and Bygbjerg 2006:Online). Supportive supervision as a strategy, would be implemented on two levels. Officers from the DRH would supervise the midwives at the county level while the midwives, who are part of the community workers, would render supportive supervision to the Community Health Workers in their respective communities. When supportive supervision is conducted regularly, quality postnatal care would be recognised at the health care facilities on community level.

5.4.5.6 Coordination of postnatal care

Coordination is defined as “the deliberate organisation of patient care activities between two or more participants (including the patient) to facilitate appropriate delivery of health care services’’ (McDonald, Sundaram and Bravata 2007: Online).

Coordination of postnatal care would involve the art of organising and mobilising of midwives and other resources, both human and non-human, required to carry out all

patient care activities. Effective coordination is achieved when proper communication exist among participants responsible for different aspects of care, such as postnatal care (McDonald, Sundaram and Bravata 2007: Online). Efficiency and effectiveness of coordination depends on the match between the needs of the population and the skills and scope of practice of the services providers. In this study, coordination should be between midwives, other health care providers and the postnatal mothers and babies (Looman *et al.* 2013:293-303). The participants were of the opinion that coordination of postnatal care should be strengthened, a multispectral approach be initiated and partnerships be consolidated which would lead to improved provision of postnatal care.

The last component of the Theory of Change Logic Model is the assumptions which are discussed below.

5.4.6 ASSUMPTIONS (6)

Assumptions are the beliefs behind how and why the suggested strategies will work in a certain community which, in this study, is the Division of Reproductive Health charged with the provision of postnatal care (Kellogg Foundation 2004:12).

As illustrated in the draft Framework of this study, there were only two assumptions that were subjected to change as per the suggestions of the National and Reproductive Health coordinators during the validation of the Framework (refer Figure 5.7, number 6).

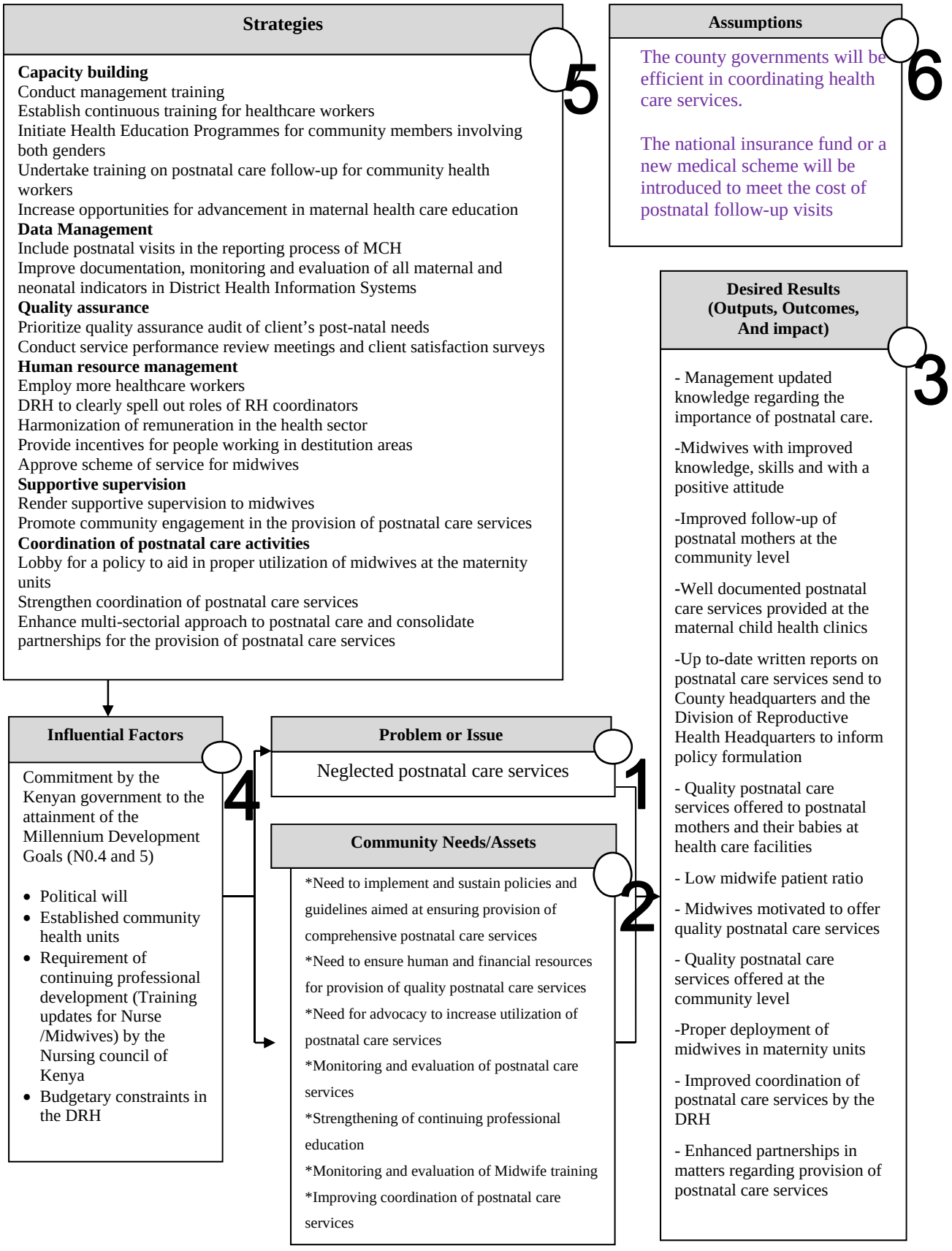


Figure 5.7 Completed draft Framework

5.4.6.1 County governments in Kenya will be efficient in coordinating the healthcare services

The 2010 Constitution of Kenya has devolved delivery of health services to the 47 counties. The central government is tasked with policy formulation and oversight of all national referral hospitals. This implies that county governments will bear overall responsibilities for planning, financing, coordinating delivery and monitoring of health services toward the fulfilment of the right to *'the highest attainable standard of health' (Constitution of Kenya 2010:32).*

5.4.6.2 The National Insurance fund or a new medical scheme will be introduced to meet the cost of postnatal follow-up visits.

The Kenyan National Hospital Insurance Fund is the primary provider of health insurance. Its mandate is to enable Kenyans access to quality and affordable health services. Currently, the fund covers in-patient expenses, but there has been a shift towards a monthly contribution increase, to be paid by members, to also cover outpatient services (NHIF 2011: Online). The government has been planning to offer universal health coverage to all citizens, but this is yet to be implemented (Rockefeller 2013: Online).

Having completed the development of the draft Framework (refer Figure 5.7), part 2 is the validation of the Framework.

5.5 PART 2 VALIDATION OF THE FRAMEWORK

The researcher was guided by literature on the Theory of Change Logic Model in the validation process aimed at finalising the draft Framework (Frechtling 2007:42; Kellogg Foundation 2004:33). The purpose of validation was to provide an opportunity for the Reproductive Health Coordinators to add their suggested amendments to the Framework.

5.5.1 VENUE, TIME AND PARTICIPANTS

The validation of the Framework was undertaken in the Boardroom of the Nairobi University campus. The same National and Provincial Reproductive Health Coordinators who participated in the NGT, were invited to take part in the validation process. Due to work commitment in the county, one of the coordinators from the former North-Eastern Province was unable to attend the validation meeting. An officer from the DRH, who participated in the NGT, had retired from service and was unavailable for the meeting, but a replacement from DRH was indicated.

5.5.2 THE VALIDATION PROCESS

The researcher presented the strategies on improving the care provided to postnatal mothers that the participants had voted as most important. The presentation of strategies was aimed at refreshing the minds of the participants given that one year and some months had elapsed from the last meeting between the researcher and Reproductive National and Provincial Reproductive Health Coordinators.

Each participant received a copy of the strategies that were identified as well as a copy of the suggested Framework. The various components of the Theory of Change Logic Model were explained to the participants in order to understand the logical flow of the connections starting from the identified problem (neglected postnatal care). The connections play a critical role in showing how the various components relate and illustrate interactions and feedback that are expected to take place (Hayes *et al.* 2011: 576-582; Frechtling 2007:42).

To ensure that the validation process covered all aspects and that all participants were involved in the process, the participants divided themselves into two groups and everyone received a copy of guiding questions as indicated in Table 5.4. Each group went through the various components of the Theory of Change Logic Model. They

added all their suggestions using the questionnaire as a guide. The suggestions were added where needed and appropriate. A volunteer from every group presented the group's suggestions for change to the entire group during a plenary session (refer Appendix VII). The researcher facilitated the validation workshop and captured the added suggestions from the participants (refer Table 5.4).

Table 5.4 Guide to validate the Framework (Kellogg Foundation 2004:33)

No	Question	Component of the Framework
1	Is the problem being addressed by the Framework clearly stated?	Problem
2	Are the community needs identified?	Community needs
3	Is there a specific clear connection between the identified community needs and the problem to be addressed?	Community needs
4	Are the expected results specific?	Desired results
5	Is there a clear connection between the problem, community needs and the expected results?	Problem community needs and expected results
6	Are the influential factors clearly identified?	Influential factors
7	Is it clear how the influential factors could affect the problem and community needs?	Influential factors, problem and community needs
8	Are the strategies clearly stated?	Strategies
9	Can the proposed strategies be implemented by both the national and county governments?	Strategies
10	Is there a visible connection between influential factors and proposed strategies	Influential factors and strategies
11	Is it clear how the assumptions could influence the proposed strategies?	Assumptions and strategies

The researcher captured the suggestions from the two groups on a white board visible to all participants. A secretary captured the suggestions on a computer who then read out load through the content she had typed to verify with the participants that their suggestions had been accurately captured (refer Figure 5.8).

The suggestions from the participants were then added to the respective components of the draft Framework. The draft Framework was amended while the participants were in the plenary sessions. The participants were allowed to discuss the suggestions and comment on all the aspects until consensus was reached. Suggestions from these participants added expert advice that was needed to complete the framework (Kellogg Foundation 2004:33). The framework was finalised with all suggestions by the participants included. As illustrated in Figure 5.8, the suggestions added by the participants, are typed in blue colour. Suggestions indicated in blue in the various components, are those added to the draft framework based on agreement by the entire group after validation. A description of the steps undertaken during the validation process, is discussed later in this chapter.

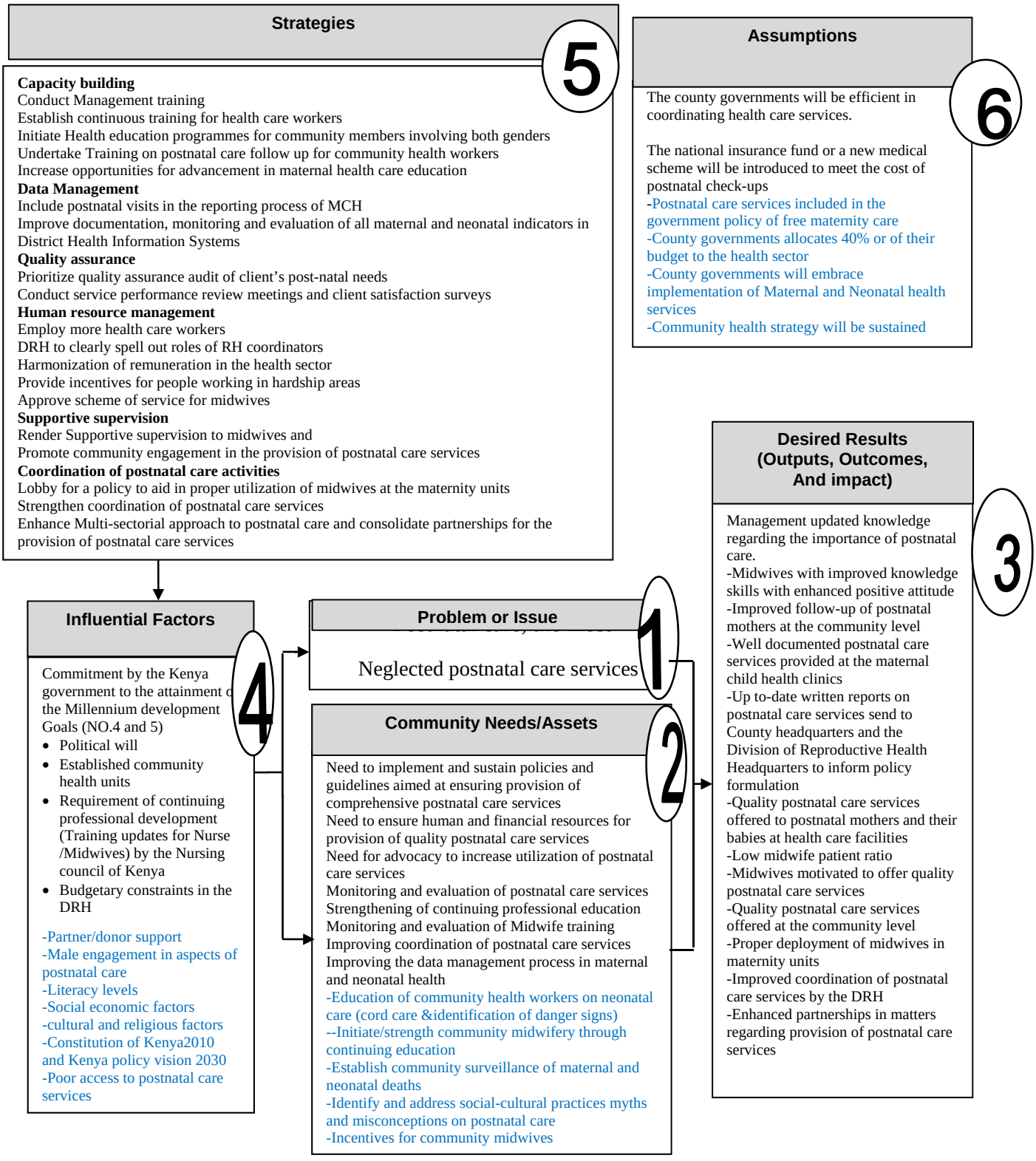


Figure 5.8 Completed Framework

5.6 TRUSTWORTHINESS IN THE DEVELOPMENT OF THE FRAMEWORK

Trustworthiness of results refers to the degree of confidence the qualitative researchers have in their work and is a key principle in all steps of qualitative research. Trustworthiness in the Framework development was assessed using the following criteria: credibility; internal validity; face validity; construct validity; content validity; transferability and triangulation.

Face validity in this Framework development was ensured by following the step-by-step approach proposed by the logic model to cover all the components (Kellogg 2004:28-32). Validation of the Framework by the participants, guided by the Theory of Change Logic Model, addressed the construct validity in this Framework development.

Content validity in the Framework development was ensured by using information obtained from the literature review and the representativeness of the National and Provincial Reproductive Health Coordinators from all the former provinces. Content validity was further strengthened by the triangulation of data obtained from Phase 1 and 2 together with the validation of the Framework by the participants.

- **Credibility**

Credibility in qualitative research implies that the researcher reports, as clear as possible, on the perceptions or opinions of the participants (Morse and Field cited in Botma *et al.* 2010:292).The National and Provincial Reproductive Health Coordinators, who were participants, took part in the nominal group discussions to identify strategies and validated the Framework. They discussed and reached consensus during the validation meeting. This contributed to the credibility of the Framework.

- **Transferability**

Transferability refers to the extent to which the findings of a research can be applied to other contexts or with other respondents and is similar to external validity in quantitative

research (Speziale and Carpenter 2007:48-50; Brink 2006:118-119; Botes 2003:176-178). A dense description of the data, as well as the sampling and design details, were described (Botma *et al.* 2010:292). That contributed to the transferability of the Framework to improve postnatal care (Moule and Goodman 2009:395). However, the notion of context is extremely important, thus making what is true in one context fail to be so in another (Frechtling 2007:9). The Division of Reproductive Health functions in collaboration with the county governments in issues related to maternal and neonatal health. The developed Framework, if adopted, will as a result contributes to the improvement of care provided to postnatal mothers and their babies nationally (Kenya Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:16).

- **Dependability**

Dependability refers to the process involved to determine the quality of the data. The measures taken to enhance credibility determine the dependability of the data, in this case the developed Framework.

- **Confirmability**

Confirmability relates to the objectivity of the data gathered (Botma *et al.* 2010:292). The fact that the Reproductive Health Coordinators reached consensus in finalising the Framework, proof the confirmability of the data collected.

- **Triangulation**

Triangulation serves as a confirmation of data by using more than one method of data collection, more than one source or more than one method of data analysis (Botma, Greeff, Mulaudzi and Wright 2010:87)). The concept of triangulation is based on the assumption that any bias inherent in a particular method, data source or investigator would be neutralised when used in conjunction with other data sources, investigators and methods.

Various data sources, analysis techniques and instruments were used to eventually develop the Framework: Quantitative data by means of a questionnaire (from midwives)

and a checklist (audit from hospitals); strategies for the participants by means of the nominal group; the Change Logic Model as basis for the Framework development and lastly the validation of the Framework.

5.7 PARTICIPANTS SUGGESTIONS TO SPECIFIC COMPONENTS OF THE FRAMEWORK

The participants added their expert advice to the draft Framework to make it a complete Framework. The participants' suggestions to the components are highlighted in Figure 5.8. These suggestions are hereby discussed according to the components of the Framework.

5.7.1 COMMUNITY NEEDS

The participants identified additional community needs which had not been included by the researcher. The additional community needs identified, were based on the field experience of the National Reproductive Health Coordinators:

- ***Education of community healthcare workers: Umbilical cord care***

Community healthcare workers play a very important role in the provision of healthcare in the rural areas (Fraser *et al.* 2006:10; Kenya Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:289-290). According to the participants a number of mothers lost their babies or brought them to the hospital after complications developed, e.g. neonatal sepsis, diarrheal diseases and pneumonia (Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:12). Complications could be avoided if umbilical cord care was appropriately practiced and if the dangers signs were identified in good time. Cord care is essential in the prevention of neonatal sepsis which accounts for 28% of all neonatal deaths in Africa and 23% in Kenya (Kenya Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:12).

When community healthcare workers (community members with no basic medical training, given short specific training to enable them to offer basic non-technical health services at community level) acquire the important knowledge regarding cord care, it is likely that they would work with women and families to incorporate cord care as part of preventive health actions (Kenya Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:286).

- ***Community midwifery through continuous education***

In Kenya, the term 'community midwife' refers to a trained, qualified and registered health professional that has permanent residency within the community to be served (Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:289). The community midwifery model of care has demonstrated to be feasible in the communities where this strategy has been initiated in Kenya (Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:288). This model has proved to be effective in increasing the proportion of women assisted by a competent practitioner during labour as well as an increased in the proportion of mothers accessing postnatal care, e.g. immunisation of babies (Kenya Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:288).

The participants identified a need to strengthen community midwifery where it already exists and the initiation of that cadre of healthcare providers in areas where it is currently non-existent in providing care for postnatal mothers and babies. The participants further identified continuous education as crucial for the community midwives, because most of these midwives were trained many years back and are now retirees in rural communities.

- ***Establish community surveillance of maternal and neonatal deaths***

The participants in this study identified the establishment of a maternal and neonatal death surveillance as a community need. Maternal and neonatal surveillance is a means of data collection, analysis and reporting of maternal and neonatal deaths (CDC

Global Health 2012: Online). The purpose of this surveillance was to assess the incidence of maternal/neonatal deaths in the community and also to identify the causes.

Apart from assessing these mortalities, surveillance is a key in evaluating the impact of health interventions aimed at lowering these mortalities. Community surveillance will enhance the monitoring of maternal and neonatal deaths in both urban and rural communities in Kenya. The Kenyan health sector could establish an audit surveillance cycle similar to one that exists in the health sector in Ugandan. The healthcare providers in the Ministry of Health in Uganda have an audit surveillance cycle that begins with the identification of the causes of death, collecting information, analysing the results, making recommendations and finally evaluating and refining the recommendations (Ministry of Health, Uganda 2011b: Online). Managers at all levels of healthcare delivery, including midwifery, are involved in the audit surveillance cycle.

- ***Social-cultural myth and misconception practices regarding postnatal care***

Social-cultural practices, myths and misconceptions encircling postnatal care, was identified as a community need by participants. Social demographics such as religious and cultural beliefs, have been known to influence the utilisation of maternal care, including postnatal care (Abdukarim, Abubakar, Babagana and Mustapha 2010: Online). Midwives and other healthcare professionals should be aware and sensitive to these beliefs as it may influence mothers' decisions to access postnatal care. Some cultural and religious beliefs may promote maternal health, while others may be detrimental (Bleakney 2010: Online).

Healthcare professionals such as midwives, should be empowered to interact with and influence the local and religious leaders in matters pertaining to maternal health. Religious and community leaders play an important role in shaping the health seeking behaviour of their communities and are trusted by the community members (Warren 2010:111-114). Religious and community leaders are instrumental in dismissing myths and misconceptions such as those with regard to postnatal care hence the need for healthcare providers to seek their collaboration. When these leaders approve services

such as utilisation of postnatal care, it is most likely that such services will be accepted and utilised by their community members.

- ***Incentives for community midwives***

Provision of incentives to community midwives was identified as one of the community needs. Currently, the community midwives in Kenya work as volunteers and have no regular remuneration for the services they render to the postnatal mother/baby in the community (Gisore *et al.* 2013: Online). The majority of community midwives are retired and devote their time to midwifery activities without receiving formal payment for their services. Community midwives are often rewarded or paid in kind by the family of the women they have assisted during labour or escorted to the hospital for the delivery. An exception to this practice is those midwives who work in collaboration with development partners (World Bank, UNFPA, UNICEF and WHO) and receive stipend from those organisations (Owek *et al.* 2013:109-115). The participants identified this lack of incentives as a hindrance to active participation in maternal and neonatal health.

5.7.2 INFLUENTIAL FACTORS

Having completed the discussion on the suggested additions to the community needs, the next step, according to the Theory of Change Logic Model, is the influential factors.

- ***Partner/donor support (Support from Non-governmental organisations involved in healthcare projects in Kenya)***

The participants identified partner/donor support as an influential factor in the implementation of this 'Framework to improve postnatal care in Kenya'. A number of development partners are currently implementing various maternal and neonatal care services, especially in the rural communities of Kenya (USAID 2014: Online; WHO 2011b: Online). The Ministry of Health, both at the national and county governments, requires the continued support of these development partners in mobilizing the required resources for provision of quality services (Wafula *et al.* 2009: Online).

- ***Male engagement in postnatal care***

The participants pinpointed male engagement in aspects of postnatal care as one of the factors that influence the success of reproductive health programmes. These male healthcare providers are the decision makers in many Kenyan communities and assess women who need services at healthcare facilities. Participants have gained increased awareness of the role played by men as partners in maternal and new-born healthcare, fathers and community leaders. Inversely lack of male involvement in issues of maternal and child health has negatively affected the utilisation of postnatal care (Kulunga, Sundby, Malata and Chirwa 2012:1-10). When male partners are involved in the antenatal care visits, they became aware of the benefits of postnatal care and are more likely to support their women in accessing these services (Mangeni, Mwangi, Mbugua and Mukthar 2013: Online).

Men in many Kenyan communities are the key decision makers whether to access health care and thus influence maternal new-born health seeking behaviour. Men need to understand the needs, risks and danger signs of pregnancy, childbirth and postnatal period to enable them to offer support to women (Kenya Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:291). Male involvement will not only increase the utilisation of services such as postnatal care, but also emphasize men's shared responsibility and promote their active involvement in reproductive health (Kululanga *et al.* 2012:1-10). Midwives and other healthcare professionals should be aware and sensitive to these beliefs as they may determine whether or not the mothers will make use of postnatal care services.

- ***Literacy levels***

The literacy level especially that of women, was identified as an influential factor that needed to be addressed in the Framework development. In Kenya, the proportion of illiterate women is double that of men (Bore and N'ganga 2010: 32). Education of women is likely to enhance female autonomy and help women develop greater confidence and capability to make decisions about their own health and that of their babies (Sakala and Kazembe 2011:113-136; Geller, Irwin, Carey and Ronald

2009:1186-1202; El-Gilany, Amr and Hammad 2008:442-448). Literate women are known to seek higher quality services since they are well informed and are aware of the benefits of such services (Pandey, Lama and Lee 2012:554-573).

Female education is positively associated with employment and these women have a better financial status and therefore the ability to access postnatal care. Employed women are also empowered to make decisions on when and how to seek these postnatal care services. Inversely, rural women who are less educated, are less exposed to information and the importance of maternal care services because of restricted social networks (Ohako *et al.* 2011: Online; Sakalai and Kazembe 2011: Online; Geller, Adam and Miller 2009: Online; El-Gilany and Hammed 2008: Online; Nakwanga 2004: Online).

- ***Socio-economic factors***

A socio-economic factor was identified as influential in the implementation of the developed Framework. Lack of finance has been cited as the predominant factor affecting the utilisation of maternal health services, especially postnatal care. Women of low socio- economic status are aware of maternal care services, however, may not seek the services because they do not have funds available and their husbands may not be willing to pay for such services (Kitui, Lewis and Dave 2013: Online; Some, Sombie and Meda 2011: Online; Ochako *et al.* 2011: Online).

- ***Cultural and religious factors***

Culture plays a major role in the way a woman perceives and prepares for her 'birth-giving experience'. Each culture has its own values, beliefs and practices related to pregnancy and labour and the postnatal period. Certain cultural practices do not allow women to leave their homes during the first few days or weeks after delivery (Warren, Daly, Toure and Mongi 2006: Online). In areas where such practices are predominant, postnatal care becomes inaccessible to the women and their babies except when paid a visited by a midwife at home (Shaikh and Hatcher 2005:49-54). Religious and cultural beliefs may further hinder male midwives from offering postnatal care to certain

categories of women. Most communities, especially in Africa (Kenya included), view issues related to childbirth as a female affair where men have little or no role to play. However, men are seen as the major decision makers and that include 'where' and 'when' to seek healthcare services – including postnatal care (Kwambai *et al.* 2013: Online).

Religious and cultural factors may prevent women from using postnatal care as they may be prohibited from making decisions including those of their own health and that of their babies (Abdukarim, Abubakar, Babagana and Mustapha 2010: Online). Although religious beliefs have been negatively associated with utilisation of maternal care services, religion may act as a network where social values are shared among its members, including the need to utilise postnatal care (Doku, Neupane and Koku 2012: Online). To engage religious leaders in maters like postnatal care, they may contribute to better attendance of maternal care utilising the place of worship to share information on the importance of such care and dismiss myths encompassing this kind of services.

- ***Kenyan constitutional policy vision 2030***

Apart from the 2010 Constitution of Kenya, participants identified the Kenyan constitutional policy vision 2030 as an influential factor. Article 43(1) (a) of the Constitution of Kenya (2010) states that: *"Every person has the right to the highest attainable standard of health*". The high standard of health includes the right to reproductive health services which also including postnatal care (Ministry of Public Health and Sanitation 2012:15).

Reproductive health is widely recognised to include family planning, antenatal care, labour and postnatal care. In 2013, the Jubilee government, which is the current ruling party in Kenya since April 2013, implemented maternity care free of charge. This ruling has had a positive effect on the utilisation of maternity care services (Bourbonnais 2013: Online). The maternity service at no cost currently covers only the cost of labour in the hospital facility, but should be expanded to include postnatal care as well.

The Kenyan vision 2030 was also identified as an influential factor. It is the blue print in country development, covering the period 2008-2030. The vision is based on three pillars namely the economic, social and political pillars. Health form part of the social pillar. To address this pillar, the government has implemented health finance mechanisms to make quality maternal and neonatal services affordable and accessible to all, especially the poor and vulnerable women (Kenya Ministry of Public Health and Sanitation and Ministry of Medical services 2012:20).

- ***Poor access to postnatal care***

The participants identified poor access to postnatal care as an influential factor in the implementation of the Framework. The location of the healthcare facilities and a proper road network have an influence on the utilisation of maternal care services (Awoyemi, Obayelu and Opaluwa 2011:1-9). Coupled with poor infrastructure and the lack of transport means that women are unable to physically access maternal and neonatal care (Gething *et al.* 2012: Online).

Mothers who live quite a distance from healthcare facilities (more than five kilometres) are less likely to utilise the services available at health facilities (Nakwanga 2004: Online). A decision to attend services at a healthcare facility, may result in a long walk and abandoning other responsibilities at home (Hazemba and Siziya 2009: Online; Titaley *et al*. 2009:500-508; Ibnouf, Van Den Borne and Maarse 2007:737-743).

There were no additional suggestions with regard to the strategies, because it had already been pull off by the same coordinators during Phase 2 of the study. The strategies were therefore not to be included in Phase 3.

5.7.3 ASSUMPTIONS

- ***Postnatal care: Government's policy of maternity care free of charge***

Suggestions by the participants regarding assumptions are that postnatal care should be included in the government policy for maternity care to the patient at no cost.

Currently, Kenyan women giving birth at government facilities are not charged for maternity care services (Bourbonnais 2013: Online) However, currently these services at no cost to the patient, do not cover postnatal care. The assumption is that these services will positively influence implementation of the Framework.

- ***County governments allocates 40% of their budget to the health sector***

The participants reported that the health sector is the only sector that had been fully regionalised. Devolution of healthcare to the counties provides an enabling environment by supporting the provision of equitable and affordable quality health services due to the responsibility of the county governments to provide primary care.

Bringing primary care services closer to the people allows for ownership and active participation (KPMG 2013: Online). The participants had an assumption that if the county governments allocated 40% of their budget to the health sector, the Framework could easily be implemented.

- ***Governments will embrace implementation of Maternal and Neonatal health services***

One of the assumptions of the participants was that the county governments will embrace the implementation of maternal and neonatal healthcare services (which were under the division of reproductive healthcare before implementation of the Kenyan constitution of 2010). The Kenyan Maternal and Neonatal Health Model has six pillars, two of which are the Targeted Postpartum care and Essential New-born care, of which both are important components of postnatal care (Kenya Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:15).

- ***Community sustained health strategy***

The final assumption of the participants was that the community strategy will be sustained. Community strategy in Kenya was introduced in 2007 to enhance community's access to healthcare in order to reduce child and maternal deaths among other desired outcomes (Kenya Ministry of Public Health and Sanitation and Ministry of

Medical services 2012:288). The intention of community strategy is to strengthen the capacity of communities to analyse, plan, implement and manage health and health related development initiatives in order to contribute effectively to the socio-economic development of the county.

The aspect of community strategy has been carried on to the devolved system of governance with the implementation of the Kenya constitution 2010. The healthcare delivery system has the community level at the first point of contact and aims at promoting community participation (KPMG 2013: Online)

Having discussed the process of Framework development, the researcher next analyses the strength and limitations of the completed Framework.

5.8 STRENGTHS AND LIMITATIONS OF THE FRAMEWORK

This section of the chapter explores both the strengths and limitations of the Framework. The strengths are first highlighted followed by the possible limitations.

5.8.1 STRENGTHS OF THE FRAMEWORK

- The Framework addresses a problem which is of priority interest to the Kenyan Ministry of Health given that more than half of Kenyan women do not access postnatal care. Kenya has a high maternal mortality ratio of 488 maternal deaths per100,000 live births and a high neonatal mortality rate of 31/1000 live births. Most of these deaths occur in the postnatal period (Ministry of Public Health and Sanitation 2012:11-17).
- Participants in this study were involved in the development of the Framework, identification of the strategies, validation of the Framework and adding their expert inputs to the components of the logic model (Kellogg Foundation 2004:7). It is the expectation of the researcher that the participants will support

all efforts aimed at its implementation, both on national and county levels of government to aid in the care provided to postnatal mothers and their babies.

- The Framework was developed when county governments adopted all activities of healthcare delivery, making resource allocation easier and quicker to administer (KPMG 2013: Online).

5.8.2 LIMITATIONS OF THE FRAMEWORK

- Phase 1 of the study, which was the initial step leading to development of the Framework, was carried out in only referral, provincial and district hospitals. Data was not collected at the health centres where postnatal care is rendered to some postnatal mothers and their babies (Kenya Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:17). The effects of this limitation were reduced by the input from the reproductive health coordinators during Phase 2. These participants presented the challenges faced in the provision of postnatal care in their provinces which included the health centres.
- The Midwives in Phase 1 were the only healthcare providers involved in the study. However, postnatal care is provided by other cadres of healthcare providers whose voices were not heard (Kenya Ministry of Public Health and Sanitation and Ministry of Medical Services 2012:114). This limitation was modified in phases two and three when obstetricians, representatives from the DRH and clinical officers actively participated in identification of strategies, validation and given expert inputs towards the Framework development.

5.9 CONCLUSION

The Framework to improve on postnatal care in Kenya, has been developed to address this neglected yet very critical period in the lives for both mother and baby. Inputs from phase 1 and 2, together with information gathered from literature assisted the researcher in developing the draft Framework. The Theory of Change logic Model was used in the theoretical underpinning of the Framework.

The participants validated the Framework and added their expert advice making it a completed Framework. Having worked in collaboration with the participants from the National Office, the DRH and the current county governments in the development of this Framework, it is foreseen that this Framework will be adopted into policies regarding postnatal care in Kenya.

5.10 SUMMARY

Chapter 5, the development of the Framework using the Theory of Change Logic Mode, and phase 3 of the study were discussed. The next is Chapter 6 which consists of the conclusion of the study and recommendations.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter presents the conclusions derived from the study findings of Phases 1 and 2 together with the development of the Framework in Phase 3. It further outlines the recommendations that the researcher deems practical in improving postnatal care in Kenya.

Table 6.1 Chapter Layout

CHAPTER	DESCRIPTION OF CHAPTER CONTENT	PURPOSE
Chapter 1	OVERVIEW OF THE STUDY	
Chapter 2	LITERATURE REVIEW	Questionnaire development Checklist development
Chapter 3	PHASE 1 Methodology Research results Discussion of results	*Step 1:* Data gathering from midwives using a questionnaire *Step 2:* Data gathering: Audit of selected hospitals using a checklist
Chapter 4	PHASE 2 *Methodology* Session 1: Presentation of data gathered in phase 1 Session 1: Presentation of data by National Reproductive Health Coordinators regarding the	Data gathering from the National and Provincial Reproductive Health Coordinators Literature control to support or control findings gathered

	utilisation and services rendered at healthcare facilities Session 2: Nominal Group Technique (NGT) *Literature control*	through the Nominal Group Technique (NGT)
Chapter 5	PHASE 3 Literature review on Framework Development Draft Framework developed Validation of draft Framework Final Framework	Development of the Framework To present Framework to all NRHCs and PRHCs for validation
Chapter 6	CONCLUSIONS RECOMMENDATIONS	

6.2 CONCLUSION

Postnatal care is an integral component of maternal healthcare although the most neglected aspect of care. Improving maternal health and reducing maternal mortality has been an issue of great concern, especially in the Low and middle income countries (LMICs) in which about 99% of maternal deaths occur. Every woman in the sub-Saharan Africa has a 1 in 16 chance of dying during pregnancy and childbirth compared to a one in close to 4,000 risks in the Higher Income Countries (HICs) (UNICEF 2004: Online). There are many disparities in health indicators between the LMICs and that of the HICs with maternal mortality as the greatest disparity. Apart from mortality rates, every year about eight million women suffer from pregnancy-related complications (WHO 2004:1).

Although maternal morbidity and mortality occur during the antenatal, intrapartum and postnatal period, strategies for reducing maternal and perinatal morbidity and mortality have been focused on the antenatal and the intrapartum periods (Ministry of Health, Kenya 2006:52). The postnatal period has received minor attention despite its crucial role in saving the lives of both the mother and baby (Ministry of Public Health and Sanitation 1012:17). High levels of morbidity and mortality can be reduced if postnatal care, by competent healthcare professionals, is accessible to mothers and babies (Senfuka 2012: Online).

The purpose of this study was to develop a Framework that could improve postnatal care services in Kenya. The Health Systems Model underpinned the first phases of the study where objectives focussed on a description of the current status of postnatal care services in Kenya.

6.2.1 MIDWIVES

Midwives completed a questionnaire. These midwives provided data mostly contradictory to the evidence from literature, statistics as well as the opinions from the National Reproductive Health Coordinators (NRHC). They described a very positive picture of the postnatal care that they provide in their hospitals, yet it is evident that postnatal care delivery in Kenya is the most neglected aspect of maternal health. Furthermore, a majority of the midwives 236/253(93.3%) rated postnatal care as either important, very important or extremely important, yet the care provided to the postnatal mother is the contrary. It was further observed that midwives received incomplete orientation when allocated to the maternity/postnatal units hence their inability to provide quality postnatal care. Policies and guidelines were reported to be inaccessible by a majority of the midwives. Cultural and religious beliefs of clients/patients were deemed to have further influenced the provision of the postnatal care.

6.2.2 CHECKLIST (HOSPITAL AUDIT)

Data analysis regarding a question in the checklist that addressed ratios, revealed that a shortage of midwives exists in all the hospitals that were utilised in the study. Policies and guidelines were reported to be inaccessible by a majority of the midwives. Cultural and religious beliefs of clients/patients were deemed to have further influenced the provision of the postnatal care. It was encouraging to detect that most of the drugs and equipment required in the provision of postnatal care, were available in most of the hospitals. Some antibiotics, e.g. Crystapen (injection), were available in all the hospitals (100%) followed by Amoxil at 97.3% availability. The least available antibiotic was Ampicillin although drugs for emergency use, e.g. adrenaline, was available in (100%) of the hospitals, but the least available drug for emergency use, was Misoprosol. Although Misoprosol was not available in the majority of the hospitals, it was not a major problem as other drugs such as oxytocin which was available in 36/37(97.3%) could be substituted in case of an obstetric emergency. The first objective was met as data collected and analysed revealed the factors which could be responsible for the current poor state of postnatal care in Kenya.

6.2.3 NATIONAL AND PROVINCIAL REPRODUCTIVE HEALTH COORDINATORS

The national and Provincial Reproductive Health Coordinators from each of the former 8 provinces of Kenya provided information about the current status of postnatal care. A few challenges were recognised and addressed in the strategies that were debated during the Nominal Group discussion.

The national and Provincial Reproductive Health Coordinators generated a pool of 33 strategies which they themselves cluster during the discussion time and ended up with 13 strategies as illustrated in Table 3.1. Six strategies were accepted as the most important strategies, namely capacity building, data management, quality assurance, human resource management, supportive supervision and the coordination of postnatal care activities.

Capacity building focused mainly on training of management, midwives and community healthcare workers on the importance and provision of postnatal care at their respective levels of practice. In data management, the participants identified the need of proper documentation of postnatal care activities which would facilitate writing accurate reports to enhance better planning and also contribute to proper provision of postnatal care. Quality assurance would be achieved through client satisfaction surveys, clinical audit of services provided and performance review meetings which would assist in improving the quality of care provided to postnatal mothers and babies. Regarding human resource management, more midwives need to be employed to lower the midwife:patient ratio and motivate midwives to offer quality postnatal care. Supportive supervision, especially qualified midwives supervising healthcare workers, would lead to improved postnatal care services being provided also on community level. The final priority strategy was the coordination of postnatal care which will result in the provision of improved postnatal care and enhanced partnerships.

Development of the Framework was accomplished by triangulating the results obtained from Phases 1 and 2 (Table 5.1). The developing of the Framework was guided by the Theory of Change Logic Model which describes the casual linkages that are assumed to occur from the start of the project to the goal attainment (Taylor-Powell and Henert 2008:4; Frechtling 2007:5).

The Theory of Change Logic Model has six components which indicates the problem being managed, community needs to address and expected results or vision for the future that the programme hopes to achieve. Influential factors which are potential barriers or supports that might impede or facilitate the expected change, strategies to be employed and assumptions on how the identified strategies would change the neglected postnatal care system (Kellogg Foundation 2004:31).

The problem in this study is neglected postnatal care and the community refers to the Division of Reproductive Health charged with the provision of postnatal care services.

The expected results are short and long term outcomes that will manifest after the implementation of the Framework.

In this study, the influential factors were the existing structures that would bring about the success of the implementation of the Framework to improve postnatal care. The strategies were those identified by the reproductive health coordinators in Phase 2 and when implemented, will improve postnatal care in Kenya. The identified strategies will be effective, if postnatal care services and the community strategy are coordinated and sustained.

The draft Framework (Figure 5.7) was presented to the national and Provincial Reproductive Health Coordinators for validation in a meeting held with the expectation that the Framework would be adopted by the Ministry of Health through the DRH in collaboration with the county governments. If adopted and implemented, this Framework would contribute to improving the quality of postnatal care provided to mothers and babies Proof that stakeholders were brought into the development of this Framework, was ensured with the involvement of the Reproductive Health Coordinators in the Nominal Group as well as in validation.

The Reproductive Health Coordinators that attended, were financed by the VLIR-UOS health project of the Moil University in Kenya. VLIR-UOS health project also funded the travel and accommodation costs for the researcher as well as for those participants coming from outside of Nairobi where the meeting was being held.

The researcher anticipates that when the quality of postnatal care is improved, an increased in the utilisation of postnatal care will be observed. Increased utilisation of services will reduce the occurrence of complications, e.g. postnatal haemorrhage that is documented as the leading course of maternal mortality - and it can be prevented. When the risks of complications are reduced, there will be a decrease in maternal and neonatal mortalities.

The reduction in maternal and neonatal morbidity and mortality are expected to occur as a result of combined efforts of a number of factors. However, improved skilled care before, during and immediately after labour is fundamental in reducing mortality rates (Bernis *et al.* 2003:39-57). It is critical that there should be adequate numbers of skilled and competent midwives to offer the crucial postnatal care.

The study achieved its intended objectives in the three phases with strengths and limitations as presented in Chapter 5. Having presented all these phases, the researcher has the following recommendations to make.

6.3 RECOMMENDATIONS

The researcher expectations are that the developed Framework will be adopted by the Ministry of Health, through the DRH, in collaboration with the county governments. It is worth noting that the researcher has been working in partnership with the officer-in-charge of Safe Motherhood at the DRH who supported the development of the Framework by releasing the Reproductive Health coordinators to participate in Phase 2 and 3. The researcher intends to disseminate the report of the study to the DRH which will coordinate the dissemination of the report to all forty-seven counties.

On the basis of the study findings the researcher recommends the following:

6.3.1 RECRUITMENT AND RETENTION OF MIDWIVES

- The Ministry of Health on national level and the county governments should critically address the shortage of personnel, especially midwives, who are the key providers of postnatal care in Kenya. Midwives should be recruited and ways of retaining them in service, e.g. improvement of terms of service and better working conditions, could be implemented in order to accomplish a midwife:patient ratio of 1:5 as recommended by the Nursing Council of Kenya.

6.3.2 EFFICIENT SUPPLY OF DRUGS, MATERIAL SUPPLIES AND EQUIPMENT

- The Kenyan government, through the Ministry of Health at national level and the health departments of county governments should endeavour to develop an efficient supply of essential drugs, material supplies and equipment necessary to management clients/patients in all healthcare facilities. A review of the existing process of acquisition of drugs and supplies, should be undertaken and corrective measures, meant to improve efficiency, be implemented.

6.3.3 POLICIES AND POLICY MAKERS

- Policies and guidelines for the provision of quality postnatal care, should be formulated and made available and accessible to midwives and other healthcare providers to support the standardisation of care provided to postnatal mothers and their babies nationally.
- Policy makers should invent new ways of cultivating and sustaining positive interaction with the community and religious leaders in matters pertaining to postnatal care. Representatives of the county health departments also need to organize forums where free interactions with the community and religious leaders can take place from time to time. Community and religious leaders are trusted by the community members and when they support utilisation of postnatal care, these services will be accepted and utilised by pregnant women.

6.3.4 COORDINATION OF POSTNATAL CARE

- Proper coordination of postnatal care should be implemented on both national and county government levels to improve healthcare provided to postnatal mothers and their babies.

6.3.5 FURTHER RESEARCH

- A follow-up study to include other healthcare providers providing postnatal care, especially obstetricians. More input from obstetricians, since doctors with speciality training, were not included in phase1 of this study, is needed. Such a study could include the midwives allocated to health centres, because they also were not included in this study.
- A research study covering the theme of postnatal mothers' views on the standard of maternal care they received, may be an option in a future research study.

6.4 SUMMARY

The study to develop a Framework to improve postnatal care in Kenya, was accomplished in three phases and had three objectives. The objectives were to investigate the current state of postnatal care, identify strategies to improve postnatal care and develop a Framework to improve postnatal care. All the study objectives were met and a number of recommendations were suggested to include further research, recruitment and retention of midwives, sufficient supply of drugs, material supplies/equipment and dissemination of policies and guidelines on postnatal care

- ***"The success of any Framework lies in the ability to implement. My active involvement and the support of the main stakeholders, I believe, will be the key to successful implementation.***

- ***Together we will make the difference"***

REFRENCES

Abdukarim, G.M., Abubakar, A.K., Babagana, B. & Mustapha, K. 2010. [Online]. *Sociocultural factors influencing decision-making related to fertility among the Kanuri tribe of North-Eastern Nigeria.* www.phcfm.org/index.php/phcfm/article/view/94/85#10 [Accessed on 25 March 2014].

Adrinah, M.S. & Base, K.L. 2012. [Online]. Assessment of the Knowledge of Midwives Regarding Prevention of Low Apgar score. *Life Science Journal* 9(4):1537-1545. www.lifesciencesite.com/lsj/life0904/234_10039life0904_1537_1545.pdf [Accessed on 10 February 2013].

Africa Health Workforce Observatory. 2009. [Online]. Human Resource for Health Fact sheet. www.hrh- Africa observatory.afro.who.int/en/document-centre.html [Accessed on 20 November 2012].

African Medical and Research Foundation. 2012. [Online]. *Training Health Workers, Saving Lives.* (AMREF) Coffeehouse Speakers Series on Global Development. www.slideshare.net/AMREFCanada/amref-training-health-workers-through-e-learning-slideshare [Accessed on 5 December 2012].

Al-Abri, R. & Al-Balushi, A. 2014. Patient satisfaction survey as a tool towards quality improvement. *Oman Medical Journal* 29(1):3-7.

American College of Nurse Midwives. 2011. [Online]. *Taking Care of a Baby at Home After Birth: What Families Need to Do.* http://www.healthynewbornnetwork.org/sites/default/files/resources/CORE%20ENC%2011-08-2011.pdf [Accessed on 4 June 2012].

American College of Nurse Midwives. 2012. [Online]. *Midwifery: Evidence-Based Practice. A Summary of Research on Midwifery Practice in the United States.* http://www.midwife.org/ACNM/files/ccLibraryFiles/Filename/000000002128/Midwifery%20Evidence-based%20Practice%20Issue%20Brief%20FINALMAY%202012.pdf [Accessed on 16 May 2013].

AnBordAltranais. 2010. [Online]. *Practice standards for midwives*. www.nursingboard.ie/getAttachment.aspx?id=d1c592bd-3994 [Accessed on 6 March 2013].

Andre, K. & Heartfield, M. 2011. [Online]. *Evidence of continuing competence.* www.amazon.ca/.../s?...Marie%20Heartfield...27%3AMarie%20Heart [Accessed on 7th October 2012].

Armstrong, F. 2005. What lies ahead for primary care? *Australian Nursing Journal* 13(2):18.

Ashford, J. B., Wong, K. & Sternbach, K. 2008. Generic correctional programming for mentally ill offenders: A pilot study. *Criminal Justice and Behaviour* 35:457-473.

Association of Reproductive Health Professionals. 2006. [Online]. *Postpartum Counselling Checklist: Assessment and Screening Postpartum Checklist.* ARHP Publications and Resources.
www.arhp.orgpublica/tions-and-resources/.../postpartum-counselling
[Accessed on 3 July 2012].

Australian Nursing and Midwifery Council. 2010. [Online]. *National competency Standards for Registered Nurses.*
www.theses.flinders.edu.au/uploads/approved/adt-SFU20100708.110421/public/09Appendix7.pdf
[Accessed on 5 March 2012].

Australian Nursing and Midwifery Federation. 2013. [Online]. *Continuing Competence*.
www.anmf.org.au/documents/policies/PS_Continuing_competence.pdf
[Accessed on 6 January 2014].

Australian Nursing Federation. 2010. [Online]. *Snapshot of Nursing roles in Primary Health care.*
www.anmf.org.au/documents/reports/Fact-sheet-snap-shot-primary-health.pdf
[Accessed on 5 June 2012].

Awofeso, N. 2012. [Online]. *Organisational Capacity Building in Health Systems. New York*: Routledge.
www.routledge.com/books/details/9780415521796/
[Accessed on 2 April 2012].

Awoyemi, T.T., Obayelu, O.A. & Opaluwa, H.I. 2011. Effect of Distance on Utilization of Health Care Services in Rural Kogi State, Nigeria. *Journal of Human Ecology* 35(1):1-9.

Ayobami, O.O. 2011. [Online]. *Corruption Eradication in Nigeria: An Appraisal Library Philosophy and Practice.*
www.unllib.unl.edu/LPP
[Accessed on 7 June 2012].

Babbie, E. 2004. Laud Humphreys and research ethics. *International Journal of Sociology and Social Policy* 24(3/4/5):12-19.

Babbie, E. & Mouton, J. 2003. [Online]. *The practice of social research.* Oxford: University Press.
www.worldcat.org/title/practice-of-social-research/oclc/46801568
[Accessed on 2 June 2012].

Barron, P., Buthelezi, G., Edwards, J., Makhanya, N. & Palmer, N. 1997. *Health Systems Research.* Durban: Health Systems Trust.

Beake, S., Rose, V., Bick, D., Weavers, A. & Wray, J. 2010. [Online]. *A qualitative study of the experiences and expectations of women receiving in-patient postnatal care in one English maternity unit.*
www.biomedcentral.com/1471-2393/10/70
[Accessed on 3 June 2011].

Beksinska, M.E., Smit, J., Mabude, Z. & Vijayakumar, G. 2006. Performance of the Reality polyurethane female condom and a synthetic latex prototype: A randomized crossover trial among South African women. *Contraception* 73(4):386–393.

Benson, S.G. & Dundis, S.P. 2003. Understanding and motivating health care employees: Integrating Maslow's hierarchy of needs, training and technology. *Journal of Nursing Management* 11:315-320.

Bentley, J. & Dandy-Hughes, H. 2010. Implementing KSF competency testing in primary care. Part 2: evaluation of the pilot of an appraisal tool. *British Journal of Community Nursing* 15(11):553-560.

Bernis, L., Sherraatt, D.R., Abouzahr, C. & Leberie, W.V. 2003. Skilled attendants for pregnancy, childbirth and postnatal care. *British Medical Bulletin* 67:39-57.

Bertalanffy, L. 1968. [Online]. *General System Theory: Foundations, Development & Applications.*
www.amazon.com/General-Systems-Theory-Foundations-Applications/dp/0807604534
[Accessed on 14 March 2009].

Birken, S.A., Lee, D.S., Weiner, B.J., Chin, M.H. & Schaefer, C.T. 2012. Innovation Implementation: Middle Managers as Change Agents. *Medical Care Research and Review* 70(11):29-25.

Blanche, T.M., Durrheim, K. & Painter, D. (Eds). 2011. *Research in practice: Applied methods for the social sciences*. 2nded. Cape Town: UCT Press.

Bleakney, C.A. 2010. [Online]. *Prenatal Care of Hispanic Mothers*. University of Tennessee Thesis Projects. www.tracetennessee.edu/utk_chonhonoproj/1376
[Accessed on 15 June 2012].

Bless, C., Higson-Smith, C. & Sithole, S. 2013. *Fundamentals of social research methods: an African perspective.* Cape Town: Juta.

Block, M.A.G., Akosa, A.B. & Chowdhury, M. 2012. [Online]. *Health Systems Research and Infectious Diseases of Poverty: From Margins to Mainstream*. www.who.int/tdr/stewardship/global_report/2012/chapitre3_web.pdf [Accessed 20 January 2013].

Botes, A. 2003. Validity, reliability & trustworthiness: to sum up. In: Rossouw, D. (Ed.). *Intellectual Tools: Skills for human science.* Pretoria: Van Schaik.

Botma, Y., Greeff, M., Mulaudzi, F.M. & Wright, S.C.D. 2010. *Research in Health Sciences.* Cape Town: Heinemann.

Bourbonnais, N. 2013. [Online]. *Implementing Free Maternal Health Care in Kenya.* www.knchr.org/Portals/0/EcosocReports/Implementing%20Free%20Maternal%20Health%20Care%20in%20Kenya.pdf [Accessed on 26 March 2014].

Bowser, D. & Hill, K. 2010. [Online]. *Exploring Evidence for Disrespect and Abuse in Facility-based Childbirth; Report of a Landscape Analysis, USAID-Traction Project.* Harvard School of Public Health, University Research Co., LLC. www.whiteribbonalliance.org/wra/assets/file/final_rmc_charter.pdf [Accessed on 4 June 2012].

Brandford, H.M., Cardnas, V., Camach-Car, K. & Lydon-Rochelle, M.T. 2007. Accuracy of Birth Certificate and Hospital Discharge Data: A Certified Nurse-Midwife and Physician Comparison. *Maternal and Child Health Journal* 11(6):540-548.

Brandt, D. 2005. What's the Nurse to Patient Ratio? *American Journal of Nursing* 105(1):20.

Brick, J.M., Williams, D. & Montaquila, J. 2011. [Online]. *Address-based sampling for subpopulation surveys.* doi: 10.1093/poq/nfr023 [Accessed on 3 September 2012].

Bridges, D.R., Davidson, R.A., Odegard, P.S., Maki, I.V. & Tomkowiak, J. 2011. [Online]. *Interprofessional collaboration: Three best practice models of interprofessional education.* www.ncbi:nlm.nih.gov/pmc/articles/PMC30812491 [Accessed on 24 May 2013].

Brink, H.I., Van Der Walt, C. & Rensburg, G. 2006. *Fundamentals of research methodology for health care professionals.* 2nd ed. Cape Town: Juta & Co. Ltd.

Brown, A. & Gilbert, B. 2012. The Vunuatu medical supply system – documenting opportunities to meet the Millennium Development Goals. *Southern Medical Review* 5(1):14-21.

Brown, S.J., Davey, M.A. & Bruinsma, F.J. 2005. Women's views and experiences of postnatal hospital care in the Victorian Survey of Recent Mothers 2000. *Midwifery* 21(2):109-1026.

Burns, N. & Grove, S.K. 2005.*The Practice of Nursing Research: Conduct, Critique and Utilization.* 5thed. St. Louis: Elsevier Saunders.

CDC. Global Health Kenya. 2012. [Online]. *Developing Surveillance and Health Information Systems.* www.cdc.gov/globalhealth/countries/kenya/what/surveillance.htm [Accessed on 20 March 2014].

Center for Rural Studies. University of Vermont. 1998. [Online]. *Guidelines for using the Nominal Group Technique.* http://crs.uvm.edu/gopher/nerl/group/a/meet/Exercise7/b.html [Accessed on 20 July 2012].

Chandran, A. & Frank, D.Z. 2004. Utilization of Performance Appraisal Systems in Health Care Organizations and Improvement Strategies for Supervisors. *The Health Care Manager* 23(1):25-30.

Chaudhry, M.S., Sabir, H.M., Rafi, N. & Kalyar, M.N. 2011. Exploring the Relationship between Salary Satisfaction and Job Satisfaction: A Comparison of Public and Private Sector Organizations. *Journal of Commerce* 3(4):1-14.

Cheng, C., Fowles, E.R. & Walker, L.O. 2006. Postpartum Depression. Culture and African American Women. *Journal of Perinatal Education* 15(3):34-42.

Chimtembo, L.K., Maluwa, A., Chimwaza, A., Chirwa, E. & Pindani, M. 2013. Assessment of quality of postnatal care services offered to mothers in Dedza district, Malawi. *Open Journal of Nursing* 3:343-350.

Chodzaza, E. & Bultemeier, K. 2010. National management guidelines for obstetric emergencies. *African Journal of Midwifery and Women's Health* 4(2):57-61.

Chumba, J. & Okungu, V. 2011. [Online]. *Viewing the Kenyan Health System through an equity lens: Implications for universal coverage.* www.ncbi.hlm.nih.gov/pmc/article/Pmc31295861 [Accessed on 4 May 2014].

Clements, D., Dault, M. & Priest, A. 2007. Effective teamwork in healthcare: research and reality. *Health care Papers* 7(Special number):26-34. *Health care Papers 7 (Special number):26-34.*

Courtney, M. & McCutcheon, H. 2010. *Using Evidence to Guide Nursing Practice*. Edinburgh: Elsevier.

Crisp, B.R., Green Lister, P. & Dutton, K. 2005. [Online]. *Integrated Assessment, New Assessment Methods: Evaluation of an Innovative Method of Assessment: Critical Incident Analysis.* www.iriss.ac.uk/files/NAMdemonstrationproject0403.pdf [Accessed on 3 February 2013].

Crisp, B.R., Swerissen, H. & Duckett, S.J. 2000. Four approaches to capacity building in health: consequences for measurement and accountability. *Health Promotion International* 15(2):99-106.

Curtis, P., Ball, L. & Kirkham, M. 2006. Why do Midwives leave? (Not) being the kind of Midwife you want to be. *British Journal of Midwifery* 14(1):27-31.

Daher, M., Estephan, E., Abu-SaadHuijer, H. & Naja, Z. 2008. Implementation of palliative care in Lebanon: Past, present, and future. *Lebanese Medical Journal* 56(2):70-76.

Daly, M. 2011. [Online]. *Healthcare Audit Criteria and Guidance, Prepared by the Clinical Audit Criteria and Guidance Working Group.* www.scribd.com/doc/65613406 [Accessed on 10 June 2012].

Daly, M. 2008. [Online]. *Health care Audit Criteria and Guidance.* www.hse.ie/eng/about/who/qualityandpatientsafety/resourcesinteligence/quality-and-patient-safety-documents/guide.pdf [Accessed on 6 July 2013].

Darj, E. 2003. Shorter waiting lists and better occupational environment! Organizational restructuring of the department of obstetrics and gynecology well worth the effort – less stress, excellent cooperation with primary care and satisfied patients. *Lakartidnigen* 100(37):2847-2851.

Debold, B. 1996. [Online]. *The Nominal Group Technique*. http://www.deboldgroup.com/TQM/nominal.htm [Accessed on 5 December 2004].

Delbecq, A.L., Van de Ven, A.H. & Gustafson, D.H. 1975. *Group techniques for program planning.* Glenview, IL: Scott, Foresman and Co.

De Onis, M., Blossner, M. & Borghi, E. 2012. Prevalence and trends of stunting among pre-school children, 1990–2020. *Journal of Public Health Nutrition* 15:142–148.

De Vos, A.S.2005.Qualitative data analysis andintepratation. IN De Vos, A.S.Strydom, H., Fouche, C.B. & Delport, C.S.L.(Eds). *Research at Grassroots: For the Social Sciences and Human service Professionals*. 3rd ed. Pretoria: Van Schaik Publishers.

De Vries, R.G. 2012. Midwives, Obstetricians, Fear and Trust: A Four Part Intervention. *Journal of Perinatal Education* 21(1):9-10.

Dhakal, S., Chapman, G.N., Simkhada, P.P., Teijlingen, E.R., Stephens, J. & Raja, A.E. 2007. [Online]. *Utilization of postnatal care among rural women in Nepal.* www.biomedcentral.com/1471-2393/7/19 [Accessed on 4 February 2013].

Division of Reproductive Health. 2012a. *Orientation Package for Targeted Post Natal Care: Orientation Manual for Health Providers.* Nairobi: Government Printers.

Division of Reproductive Health. 2012b. *Baseline Capacity Assessment Report on M& E Functions Division of Reproductive Health, Department of Family Health*. Nairobi: Government Printers.

Division of Reproductive Health. 2012c. [Online]. *Estimating the Weight of Children in Kenya: Do the Broselow Tape and Age-Based Formulas Measure Up?* www.annemergmed.com/article/S0196-0644%2812%2901295-4/fulltext [Accessed on 16 September 2013].

Division of Reproductive Health. 2011. [Online]. *Maternal, Neonatal & Child Health Policies, Strategies, Guidelines & Tools.* http://www.k4health.org/toolkits/Kenya-health/maternal-neonatal-andchild-health-policies-strategies-guidelines-and-tools#1 [Accessed on 25 August 2013].

Dobbie, A., Rhodes, M., Tysinger, J.W. & Freeman, J. 2004. Using a Modified Nominal Group Technique as a Curriculum Evaluation Tool. *Family Medicine* 36(6):402-406.

Dogba, M. & Fournier, P. 2009. [Online]. *Human resources and the quality of emergency obstetric care in developing countries: a systematic review of the literature.* www.human-resources-health.com/content/7/1/7 [Accessed on 23 August 2012].

Dogba, M., Fournier, P. & Safoura, B. 2012. [Online]. *Qualification of Staff, Organization of Services, and Management of Pregnant Women in Rural Settings: The Case of Diema and Kayes Districts Mali*. www.ncbi.nlm.nih.gov/pmc/articles/PMC3352604 [Accessed on 7 September 2013].

Doku, D., Neupane, S. & DokuKoku, P.N. 2012. [Online]. *Factors associated with reproductive health care utilization among Ghanaian women.* www.biomedcentral.com/1472-698X/12/29 [Accessed on 25 March 2014].

Doran, D.M. & Sidani, S. 2007. Outcomes focused knowledge translation: A framework for knowledge translation and patient outcomes improvement. *Worldviews on Evidence-Based Nursing* 4(1):3–13.

Drury, V., Francis, K. & Chapman, Y. 2008. Where Have All the Young Ones Gone: Implications for the Nursing Workforce. *OJIN: The Online Journal of Issues in Nursing* 149(1): 11.

Dunham, R.B. 1998. [Online]. *Nominal Group Technique.* http://courses.bus.wisc.edu/rdunham/EMBA/Fall_2006_Readings/TEAMS/dunham_ngt.pdf/ [Accessed on 16 September 2013].

Du Plessis, J. 2009. [Online]. *Breast Feeding Mothers and Health Practitioners in the Context of Private Medical care in Gauteng.* http://www.hsag.co.za [Accessed on 17 May 2013].

El-Gilany, A.H., Amr, M. & Hammad, S. 2008. Perceived stress among male medical students in Egypt and Saudi Arabia: effects of socio-demographic factors. *Annals of Saudi Medicine* 28(6):442-448.

Ellis, J. 2008. Managing Performance. *Journal of Nursing Management* 15(1):28-33.

Ellis, J., Priest, A., MacPhee, M. & Mc Cutcheon, A.S. 2006. [Online]. *Staffing for Safety. A synthesis of evidence on nurse staffing and patient safety. Health services Foundation.* www.chsrf.ca. [Accessed on 20 January 2013].

Family Care International, Inc. & Gynuity Health Projects. 2006. *Design.* Montreal: Green Communication Design.

Fawole, B., Awolude, O.A., Adeniji, O.A. & Onafowokan, O. 2012. *WHO recommendations for the prevention of postpartum haemorrhage: RHL guideline.* Geneva: The WHO Reproductive Library.

Fenwick, J., Butt, J., Dhaliwa, S., Hauck, Y. & Schmied, V. 2010. Western Australian women's perceptions of the style and quality of midwifery postnatal care in hospital and at home. *Women and Birth* 23:10-21.

Fernando, P., Vidya, T.N.C., Rajapakse, C., Dangolla, A. & Melnik, D.J. 2003. Reliable non-invasive genotyping: fantasy or reality? *Journal of Heredity* 94:115-123.

Fleming, V. & Holmes, A. 2005. [Online]. *Basic nursing and midwife education programmes in Europe. A Report to the World Health Organization Regional Office for Europe.* www.euro.who.int/__data/assets/pdf_file/0013/.../E86582.pdf [Accessed on 11 May 2012].

Fotso, J.C., Ezeh, A. & Oronjr, R. 2008. Provision and Use of Maternal Health Service among Urban Poor Women in Kenya: What Do We Know and What Can We Do? *Journal of Urban Health* 85(3):428-442.

Fraser, D.M., Cooper, M.A. & Nolte, A.G.W. 2006. *Myles textbook for midwives*: *African edition.* Edinburgh: Churchill Livingstone.

Frattali, C.M. 1991. [Online]. *Measuring Client Satisfaction. Quality Improvement Digest.* www.asha.org/SLP/healthcare/Measuring-Client-Satisfaction/ [Accessed on 4 July 2012].

Frechtling, J.A. 2007. *Logic Modelling Methods in Program Evaluation*. San Francisco: Jossey-Bass.

Fullerton, J.T., Johnson, P.G., Thompson, J.B. & Vivio, D. 2011. Quality considerations in midwifery pre-service education: Exemplars from Africa. *Midwifery* 27(3):308-315.

Furuta, M. & Salway, S. 2006. Women's Position Within the Household as the Determinant of Maternal Health Care Use in Nepal*. International Family Planning Perspectives* 32(1):17-27.

Galadanci, H., Künzel, D., Shittu, O., Gruhl, M., Zinser, R. & Adams, S. 2011. Obstetric Quality Assurance to reduce maternal and fetal mortality in Kano and Kaduna State hospitals in Nigeria. *International Journal Gynecology & Obstetrics* 114:23-28.

Galvin, K., Smith, L., Sorum, R. & Ellefsen, B. 2010. Redesigned community postpartum care to prevent and treat postpartum depression in women - a one-year follow-up study. *Journal of Clinical Nursing* 19(21/22):3050-3062.

Gazali, W.A., Muktar, F. & Gana, M.M. 2012. Barriers to the Utilization of Maternal Health Care Facilities among Pregnant and Non-pregnant Women of Child-

bearing Age in Maiduguri Metropolitan Council (MMC) and JereLgas of Borno State. *Continental Journal Tropical Medicine* 6(1):12-21.

Geller, A., Irwin, G., Carey, E.C. & Ronald, B.M. 2009. Parental Incarceration and Child Wellbeing: Implications for Urban Families. *Social Science Quarterly* 90:1186-1202.

Georgia Nurses Association. 2004. [Online]. *Recognizing Domestic Partnerships in the Clinical Setting: Action Report 2, Georgia Nurses Association House of Delegates.*
www.thefreelibrary.com
[Accessed 5 November 2012].

Gething, P.W., Johnson, F.A., Frempong-Ainguah, F., Nyarko, P., Baschieri, A., Aboagy, P., Falkingham, J., Mathews, Z. & Atkinson, P.M. 2012. [Online]. *Geographical access to care at birth in Ghana: a barrier to safe motherhood*.
www.biomedcentral.com/1471-2458/12/991
[Accessed on 26 March 2014].

Gisore, P., Rono, B., Marete, I., Nekesa-Mangeni, J., Tenge, C., Shipala, E., Mabeya, H., Odhiambo, D.O., Bucher, S., Makoha, C., Liechty, E. & Esamai, F. 2013. Commonly cited incentives in the community implementation of the emergency maternal and new-born. A study in western Kenya. *African Science*13(2):461-468.

Glick, P. 2009. How reliable are surveys of client satisfaction with healthcare services? Evidence from matched facility and household data in Madagascar. *Social Science & Medicine* 68(2):368-37.

Godia, P., Jilo, H., Kichamu, G., Pearson, L., Ongwae, K., Kizito, P., Muga, R. & Fort, A. 2005. *Kenya Service Provision Assessment Survey 2004. National Coordinating Agency for Population and Development [Kenya].* Nairobi: Ministry of Health; Central Bureau of Statistics & ORC Macro.

Goldberg, H. 2009. Informed Decision Making in Maternity Care. *Journal of Perinatal Education* 18(1):32-40.

Goodman, J.C. 2002. [Online]. *Coaching and Systems Theory.* Centre for Internal Change.
www.pdfdrive.net/coaching-and-systems-theory-order-inscape-publishings-e222951.html.
[Accessed on 14th September 2012].

Greene, M., Manisha, M., Puherwitz, D.W., Akinrinola, B. & Susheela, S. 2003. [Online]. *Involving men in Reproductive Health: Contributions to Development.*
www.unmilleniumproject.org/documents/Greene-etal-final.pdf
[Accessed on 26 May 2014].

Halldorsdottir, S. & Karlsdottir, S.I. 2011. The primacy of the good midwife in midwifery services: an evolving theory of professionalism in midwifery. *Scandinavian Journal of Caring* 25:806-817.

Hamilton, A. & Nolte, A.G.W. 2006. Operative Deliveries. In Hamilton, A. & Nolte, A.G.W. *Myles Textbook for Midwives: African Edition.* Edinburgh: Churchill Livingstone.

Hammerschlag-Peyer, C.M., Yeager, L.A., Arujo, M.S. & Layman, C.A. 2011. [Online]. *A Hypothesis Testing Framework for Studies Investigating Ontogenetic Niche Shifts Using Stable Isotope ratios*. www.plosone.org/article/info%3Adoi%2F10.1371%2journal.phone.0027104 [Accessed on 17 September 2013].

Hatem, M., Sandall, J., Devane, D., Soltani, H. & Gates, S. 2009. Midwife–led versus other models of care for child bearing women. *Cochrane data base Systematic Review,* issue 4. Article No: CD004667.DOI:10.1002/14651858.CD004667.pub 2.

Hayes, H., Parchman, L.M. & Howard, R. 2011. A Logic Model Framework for Evaluation and Planning in a Primary Care Practice-based Research Network (PBRN). *Journal of the American Board of Family Medicine* 24(5):576-582.

Hayes, M. & Frechtling, J.A. 2007. *Logic modeling methods in program evaluation.* San Francisco: Jossey-Bass.

Hazemba, A.N. & Siziya, S. 2009. Choice of place for Childbirth: prevalence and correlates of utilization of health facilities in Chongwe district, Zambia. *Medical Journal of Zambia* 35(2): 0-0.

Health Sector Programme. Support Phase III. 2011. *Partner Support*. Nairobi: Government Printers.

Heathfield, S.M. 2012. [Online]. *Why Organizations do employee performance evaluation: Goals of employee evaluation.* http://humanresources.about.com/od/performancemanagement/qt/employee-evaluation.htm [Accessed on 16 September 2013].

Heathfield, S.M. 2007a. [Online]. *Set Them Free: Two Musts For Employee Motivation. What Organizations Can Do About Employee Motivation*. www.ajol.info/index.php/mjz/article/download/46513/32909 [Accessed on 15 June 2012].

Heathfield, S.M. 2007b. Promotion is often a reward to an employee for work contribution. *Journal of Human Resource Management* 11(3):45-48.

HENNET. 2010. [Online]. Documentation of best practices and lesson learned among member organizations. http://www.hennet.or.ke/ [Accessed 15 October 2014].

Henshaw, A.M., Clarke, D. & Long, A.F. 2013. Midwives and supervisors of midwives' perceptions of the statutory supervision of midwifery within the United Kingdom. *Midwifery* 29(1):75-85.

Hilder, T. 1995. [Online]. *The Viable Systems Model.* Cavendish Software Ltd. http://pdfcast.org/viewer4.swf?SwfFile=http://pdfcast.org/data/swf/stafford-beer-s-viable-system-model.swf& Scale=0.6& FitWidthOnLoad=true& ViewModeToolsVisible=false& ZoomToolsVi.sible=true& NavToolsVisible=true& CursorToolsVisible=true& SearchToolsVisible=true& ProgressiveLoading=true [Accessed on 8 June 2013].

Horowitz, C.R., Robinson, M. & Sarena, S. 2009. Community-based participatory research from the margin to the mainstream: are researchers prepared? *American Heart Association* 119(19):2633-2642.

Hosli. 2010. [Online]. *Influence of Pregnancy and delivery to the pelvic floor*. www.ncbi.nlm.nih.gov/pubmed/20052649 [Accessed on 7 June 2012].

Huges, R.G.H. 2008. [Online]. *Patient safety and quality: an evidence-based handbook for nurses.* http://www.ncbi.nlm.nih.gov/books/NBK2660/ [Accessed on 20th July 2013].

Human Resources for Health Knowledge Hub. 2011. [Online]. *Strengthening Supportive Supervision At The District Health Level In The Pacific.* www.hrhhub.edu.au [Accessed on 4 June 2013].

Hunt, P. & Bueno, J. 2010. [Online]. *Reducing maternal mortality: The contribution of the right to the highest attainable standards of health.* www.unfpa.org/webdav/site/global/shared/documents/publications/reducing_mm.pdf [Accessed on 2 June 2013].

Ibnouf, A.H., Van den Borne, H.W. & Maarse, J.A. 2007. Utilization of antenatal care services by Sudanese women in their reproductive age. *Saudi Medical Journal* 28(5):737-743.

International Confederation of Midwives. 2010. [Online]. *Global Standards Midwifery Education-Guidelines.*

www.internationalmidwives.org/assets/uploads/documents/CoreDocuments/ICM%20Standards%20Guidelines_ammended2013.pdf
[Accessed on 7 August 2012].

International Confederation of Midwives. 2011. [Online]. Global Standards Midwifery Education-Guidelines.
www.internationalmidwives.org/assets/uploads/documents/Definition%20of%20the%20Midwife%20-%202011.pdf
[Accessed on 10 June 2013].

International Development Research Centre. Research on Health and Health Systems. 2012. [Online]. *Global Standards Midwifery Education-Guidelines.*
www.idrc.ca/EN/AboutUs/Accountability/Pages/Info-Source-Sources-of-Federal-Government-and-Employee-Information.aspx
[Accessed on 4 January 2013].

International Development Research Centre. 2003. [Online]. *Designing and conducting health systems research projects: Proposal development and fieldwork.*
www.idr.ca/EN/Resources/publications/openbooks/069-1/index.html
[Accessed on 28 July 2012].

Iqbal Anwar, A.T.M., Killewo, J., Chowdhury, M.K. & Dasgupta, S.K. 2004. [Online]. *Inequalities in utilization of maternal health care services – evidence from MATLAB.* Washington: The World Bank.
siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/281627-1095698140167/RPP2Bangladesh
[Accessed 9 January 2011].

Islam, M. 2007. [Online]. *Health Systems Strengthening: An Introduction.*
www.org/files/571_file_01_Chapter_1.pdf [Accessed on 20 January 2010].

Iyalomhe, G. & Iyalomhe, S. 2012. Hypertension-related knowledge, attitudes and life-style practices among hypertensive patients in a sub-urban Nigerian community. *Journal of Public Health and Epidemiology* 24:71-77.

James, S., Rall, N. & Strümpher, J. 2012. Perceptions of pregnant teenagers with regard to the antenatal care clinic environment. *Curationis* 35(1):92-99.

Jammah, A.A., Driedger, A. & Rachinsky, I. 2011. Incidental finding of ovarian teratoma on post-therapy scan for papillary thyroid cancer and impact of SPECT/CT imaging. *Brazilian Archives of Endocrinology and Metabolism.* 55(7):490-493.

Jawahar, I.M. 2010. The mediating role of appraisal feedback reactions on the relationship between rater feedback-related behaviors and ratee performance. *Group and Organization Management* 35(4):494—526.

John Hopkins Programme for International Education in Gynecology and Obstetrics. 1999. [Online]. *Defining Performance Improvement interventions for Kenya Reproductive Health Supervisors: Results of a Performance Analysis.* www.jhpiego.org/files/kenya-RH Supervisors-tchReport. [Accessed on 3 May 2010].

Johson, M., Jefferies, D. & Langdon, R. 2010. The Nursing and Midwifery Content Audit Tool : a short nursing documentation audit tool. *Journal of Nursing Management* 18(7):832-845.

Kabene, S.M., Orchard, C., Howard, J.M., Soriano, M.A. & Leduc, R. 2006. The importance of human resources management in health care: a global context. *Human Resources of Health* 4(20):1-17.

Kalisch, B.J. & Begeny, S.M. 2005. Improving nursing unit teamwork. *Journal of Nursing Administration* 35(12):550-556.

Kamwendo, L. 2012. [Online]. *Respect for Childbearing Women and Their Families, Global Motherhood. The Huffington Post*. www.huffingtonpost.com/lennie-kamwendo/malawi-child-birth_b_1311185.html. [Accessed on 29 February 2012].

Kaye-Petersen, E. 2004a. [Online]. *A continuing professional development system for nurses and midwives in South Africa.* www.ujdigispace.uj.ac.za/bitstream/handle/10210/1719/ELIZABETHThesis4April2005.pdf?sequence=1 [Accessed on 7 May 2012].

Kaye-Petersen, E. & Nzamba, B. 2004b. Postnatal assessment and care. In De Kock, J. & Van der Walt, C. (Eds). *Maternal & New-born care: a complete care for midwives and other health professionals.* Lansdowne: Juta and Co. Ltd.

Kaye-Petersen, E. 2004c. Midwifery and neonatal nursing. In De Kock, J. & Van der Walt, C. (Eds). *Maternal & New-born care: a complete care for midwives and other health professionals.* Lansdowne: Juta and Co. Ltd.

Keenan, G.M., Yakel, E., Tschannen, D. & Mandeville, M. 2008. [Online]. Documentation and the nurse care planning process. In Hughes, R.G. (Ed.). *Patient safety and quality: An evidence-based handbook for nurses*. Rockville, MD: Agency for Healthcare Research and Quality (US). www.ncbi.nlm.nih.gov/pubmed/21328773 [Accessed on 4 June 2013].

Kellogg, W.K. 2004. [Online]. *Logic Model Development Guide.* Michigan: WK Kellogg Foundation. www.epa.gov/evaluate/pdf/eval-guides/logic-model-development-guide.pdfs [Accessed on 4 August 2012].

Kenya Institute of Public Policy Research and Analysis. 2013. *Kenya economic report.* Nairobi: Government Printers.

Kenya Medical Training College (KMTC). 1987. [Online]. *Faculty of Nursing.* http://www.kmtc.ac.ke/public_site/webroot/cache/article/file/nursing-Log1.pdf [Accessed on 5 July 2013].

Kenya National Bureau of Statistics (KNBS) and ICF Macro. 2010. *Kenya Demographic and Health Survey 2008/09.* Calverton, Maryland: Measure DHS.

Kenya Service Provision Assessment. 2010. *Maternal Health and Newborn Services.* Nairobi: Government Printers.

Kenya Service Provision Assessment. 2012. *Maternal Health and Newborn Services.* Nairobi: Government Printers.

Kitui, J., Lewis, S. & Davey, G. 2013. [Online]. *Factors influencing place of delivery for women in Kenya: an analysis of the Kenya demographic and health survey, 2008/2009.* www.biomedcentral.com/1471-2393/13/40 [Accessed on 23 March 2014].

Koehlmoons, T.P., Walker, D.G. & Gazi, R. 2010. [Online]. *An internal health systems research portfolio assessment of a low-income country research institution*. www.health-policy-systems.com/content/8/1/8 [Accessed on 5 November 2012].

Kombo, D.K. & Tromp, D.L.A. 2006. *Proposal and Thesis Writing: An Introduction*. Nairobi: Paulines Publications' Africa.

KPMG. 2013. [Online]. *Devolution of Healthcare Services in Kenya: Lessons learnt from other countries.* www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Devolution%20of%20HC%20Services%20in%20Kenya.spdf [Accessed on 27 March 2014].

Kronborg, H., Vaeth, M. & Kristensen, I. 2012. The Effect of Early Postpartum Home visits by health visitors: a natural experiment. *Public Health Nursing* 29(4):289-301.

Kronborg, H., Vaeth, M., Ossen, J., Iversen, L. & Harder, I. 2007. Effect of early postnatal breastfeeding support: a cluster-randomized community based trial. *Acta Paediatria* 96(7):1064-1070.

Kululanga, L., Sundby, J., Chwira, E., Mulata, A. & Maluwa, A. 2012. Barriers to Husbands' Involvement in Maternal Health Care in a Rural Setting in Malawi: A Qualitative Study. *Journal of Research in Nursing and Midwifery* 1(1):1-10.

Kululanga, L., Sundby, J., Malata, A. & Chirwa, E. 2012. Male Involvement in Maternity Health Care in Malawi. *African Journal of Reproductive Health* 16(1):145.

Kwambai, T.K., Dellicour, S., Desai, M., Ameh, C.A., Person, B., Achieng, F., Mason, l., Laserson, K.F. & TerKuile, F.O. 2013. [Online]. *Perspectives of men on antenatal and delivery care service utilisation in rural western Kenya: a qualitative study*. www.biomedcentral.com/1471-2393/13/134/coments [Accessed on 5 November 2013].

Kwast, B. & Bergström, S. 2001. Training professionals for safe motherhood. In Lawson, J.B., Harrison, K.A. & Bergström, S. *Maternity Care in Developing Countries.* London: RCOG Press.

Kyomuhendo, G.B. 2003. Low use of rural maternity services in Uganda: impact of women's status, traditional beliefs and limited resources. *Reproductive health matters* 11:16–22.

Labree, R. 2013. [Online]. *Organizing your Social Science Research Paper.* http://libguides.usc.edu.writtingguide [Accessed on 4 January 2014].

Lehmann, U., Van Damme, W., Barten, F. & Sanders, D. 2009. [Online]. *Task Shifting: The Answer to the Human Resources Crisis in Africa? Human Resources for Health.* www.human-resources-health.com/content/7/1/49 [Accessed on 2 November 2012].

Lezine, D.A. & Reed, G.A. 2007. Political will: A Bridge Between Public Health Knowledge and Action. *American Journal of Public Health* 97(11):2010-2013.

Looman, W.S., Presler, E. & Erikson, M.M. 2013. Care coordination for children with complex special health care needs: the value of the advanced practice nurse's enhanced scope of knowledge and practice. *Journal of Pediatric Health Care* 27(4):293–303.

Lunney, M. 2008a. Current knowledge related to intelligence and thinking with implications for the use and development of case studies. *International Journal of Nursing Terminologies and Classifications* 19:158–162.

Lunney, M. 2008b. [Online]. Critical need to address accuracy of nurses diagnoses. *OJIN: Online Journal of Issues in Nursing.* Vol.13 (1)DOI:103912/OJIN.Vol13No01ppTo6. [Accessed on 4th June 2012].

MacArthur, C., Glazener, C., Lancashire, R., Herbison, P. & Wilson, D. 2011. Exclusive caesarean section delivery and subsequent urinary and faecal incontinence: a 12-year longitudinal study. *BJOG: An International Journal of Obstetrics and Gynaecology* 118:1001–1007.

MacArthur, C., Winter, H.R., Bick, D.E., Lilford, R.J., Lancashire, R.J., Knowles, H., Braunholtz, D.A., Henderson, C., Belfield, C. & Gee, H. 2003. Redesigning postnatal care: a randomised controlled trial of protocol-based midwifery-led care focused on individual women's physical and psychological health needs. *Health Technology Assessment.* 7(37):91-98.

Management Science for Health. 2006. [Online]. *Supportive Supervision to Improve Integrated Primary Health Care. Occasional Papers, no. 2. Management Science for Health.*
www.msh.org/Documents/OccasionalPapers/upload/Supportive-Supervision-to-Improve-Primary-Health-Care.pdf.
[Accessed on 5 November 2012].

Mangeni, J.N., Mwangi, A., Mbugua, S. & Mukthar, V. 2013. [Online]. *Male Involvement in Maternal Health Care as a Determinant of Utilization of Skilled Birth Attendants in Kenya. Working Papers.*
www.dhs.program.com/pubs/pdf/WP93/Wp93.pdf
[Accessed on 3 August 2014].

Manongi, R.N., Merchant, T.C. & Bygbjerg, I. 2006. Improving motivation among primary health care workers in Tanzania: a health worker perspective. *Human Resources for Health* 4(6):1478-4491-4-6.

Marchant, S. & Sengane, M. 2006. Physiology and Care in the Puerperium. In Fraser, D.M., Cooper, M.A. & Nolte, A.G.W. (Eds). *Myles Textbook for Midwives: African Edition*. Edinburgh: Churchill Livingstone.

Marjolein, D. & Harnmeijer, J.W. 2006. [Online]. *Improving health worker performance: in search of promising practices.*
www.who.int/hrh/resources/improving-hw-performance.pdf
[Accessed on 8 January 2013].

McDavid, J.C. & Hawthorn, L.R.L. 2006. *Program evaluation & performance measurement: An introduction to practice.* Thousand Oaks, CA: Sage Publications Inc.

McDonald, K.M., Sundaram, V., Bravata, D.M., Lewis, R., Lin, N., Kraft, S.A., McKinnon, M., Paguntalan, H. & Owens, D.K. 2007. [Online]. *Closing the Quality Gap: A critical Analysis of quality Strategies.*
www.ncb.nlm.nih.gov/books/NBK4415/
[Accessed on 19 November 2014].

Mehta, S., Granton, J., Lapinsky, S.E., Newton, G., Bandayrel, K., Little, A., Siau, C., Cook, D.J., Ayers, D., Singer, J., Lee, T.C., Walley, K.R., Storms, M., Cooper, J., Holmes, C.L., Hebert, P., Gordon, A.C, Presneill, J. & Russell, J.A. 2011. Agreement in electrocardiogram intepretetaion in patients with septic shock. *Critical Care Medicine* 39(9):2080-2086.

Midwifery 2020. Delivering Expectations*.* 2010*. Midwives as part of the Multidisplinary team. Midwifery 2020 programme.* Cambridge: Jill Rogers Associates.

Milstein, B. & Chapel, T. 2012. [Online]. *Developing a Logic Model or Theory of Change* www.ctb.ku.edu/en/table contents/sub_section_main_1877.aspx [Accessed on 9 August 2012].

Ministry of Health, Ireland. 2011. [Online]. *Strategic Framework for Role Expansion of Nurses and Midwives: Promoting Quality Patient Care*. www.health.gov.ie/wp-content/uploads/2014/03/role-expansion-nurses-midwives.pdf [Accessed on 1 July 2014].

Ministry of Health, Kenya. 2006*. A Strategy for the Delivery of Level One Services.* Nairobi: Government Printers.

Ministry of Health, Kenya. 2007. *Reorganization, Staffing and Regularization of the Operations and Functions of the Pharmacy and Poisons Board.* Nairobi: Government Printers.

Ministry of Health, Kenya. 2010. *Guidelines for Prevention of Mother to Child Transmission (PMTCT) of HIV/AIDS in Kenya.* Nairobi: Government Printers.

Ministry of Health, Uganda. 2011a. [Online]. *Health Sector Quality Improvement Framework and Strategic Plan 2010-2014/15*. www.health.go.ug/docs/HSQIFS.pdf [Accessed on 5th June 2013].

Ministry of Health, Uganda. 2011b. [Online]. *Strategic plan maternal, perinatal and child death review: Audit Surveillance.* www.health.go.ug/docs/HSQIFS.pdf [Accessed 17 March 2014].

Ministry of Public Health & Sanitation & Ministry of Medical Services, Kenya. 2010a. *National Infection Prevention and Control guidelines for Health Care Services in Kenya.* Nairobi: Government Printers.

Ministry of Public Health Sanitation & Ministry of Medical Services, Kenya. 2010b. *Service Provision Assessment Survey*. Nairobi: Government Printers.

Ministry of Public Health & Sanitation & Ministry of Medical Services, Kenya. 2011. [Online]. *Danida Kenya Health Sector Programme support.* www.kenya.um.dk/en/~/media/Kenya/Documents/HSPSIIIProgrammeDocument.pdf
[Accessed on 27 February 2014].

Ministry of Public Health & Sanitation & Ministry of Medical Services, Kenya. 2012. *National Guidelines for quality Obstetrics and Perinatal Care.* Nairobi: Government Printers.

Ministry of Public Health & Sanitation, Kenya. 2008. *Roadmap for Accelerating the Attainment of the MDGs related to Maternal and Newborn Health in Kenya*. *Division of Reproductive Health.* Nairobi: Government Printers.

Ministry of Public Health & Sanitation, Kenya. 2009. *National Reproductive Health Strategy 2009-2015.* Nairobi: Government Printers.

Ministry of Public Health & Sanitation, Kenya. 2012. *National Orientation Package for Targeted Postnatal care.* Nairobi: Government Printers.

Ministry of Public Health & Sanitation, Kenya. 2013. [Online]. www.capacitykenya.org/about/technical-support-to-the-government-of-kenya-2/ministry-of-public-health-sanitation/
[Accessed on 8 Sept 2013].

Mitchell, G.J. 2010. Parse's theory of human becoming and nursing practice. In Alligood, M. (Ed.). *Nursing theory: Utilization & application.* 4thed. Maryland Heights, Mo.: Mosby Elsevier.

Mitchell, L., Flin, R., Yule, S., Mitchell, J., Coutts. K. & Youngson, G. 2012. Evaluation of the Scrub Practitioners' List of Intraoperative Non-Technical Skills (SPLINTS) system. *International Journal of Nursing Studies* 49(2):201-211.

Mogasale, W.T.C., Das, A., Kane, S., Singh, A.K., George, B. & Steen, R. 2010. Quality assurance and quality improvement using supportive supervision in large-scale STI intervention with sex workers, men who have sex with men/transgenders and injecting-drug users in India. *Sexually Transmitted Infection* 86(supplement 1):83-88.

Montavalo, I. 2007. The National Database of Nursing Quality Indicators (NDNQI). *The Online Journal of Issues in Nursing* 12(3):manuscript 2.

Moule, P. & Goodman, M. 2009. *Nursing Research: An Introduction.* London: Sage Publications Ltd.

Mouton, J. 2003. *How to succeed in your master's and doctoral studies: a South African guide and resource book.* Pretoria: Van Schaik.

Mrisho, M., Obrist, B., Schellenbergn, J.A., Haws, R.A., Tanner, M. & Schellenbergn, D. 2009. The use of Antenatal and Postnatal Care: Perspectives and Experiences of Women and Health Care Providers in Rural Southern Tanzania. *Pregnancy Childbirth* 9(10):doi.101186?1471-2393-9-10.

Mrisho, M., Schellenberg, J.A., Mushi, A.K., Obrist, B., Mshinda, H., Tanner, M. & Schellenberg, D. 2007. Factors affecting home delivery in rural Tanzania. *Tropical Medicine and International Health* 12:862-872.

Muga, R., Kizito, P., Mbaya, M. & Gakuguru, T. 2004. [Online]. *Overview of the Health System in Kenya.*
www.measuredhs.com/pubs/pdf/SPA8/02Chapter2.pdf
[Accessed on 5 March 2013].

Mugenda, O.M. & Mugenda, A.G. 2003. *Research Methods: Quantitative and Qualitative Approaches.* Nairobi: ACT Press.

Muinga, N. & Ayieko, P. 2014. Using health worker opinions to assess changes in structural components of quality in a Cluster Randomized Trial. *Bio Med Central* 14(1):282.

Murray-Davis, B., Mashall, M. & Gordon, F. 2011. What do midwives think about interprofessional working & learning? *Midwifery Journal* 27(3):376-381.

Mwangi, A., Warren, C., Koskei, N. & Blanhcard, H. 2008. Strengthening Postnatal Care Services Including Postpartum Family Planning in Kenya, *Frontiers in Reproductive Health, Population Council & ACCESS-FP, Jhpiego. Nairobi.*

Nabukera, S.K., Witte, K., Muchunguzi, C., Bajunirwe, F., Batwala, V.K., Muloqo, E.M., Farr, C., Barry, S. & Salihu, H.M. 2006. Use of postpartum health services in rural Uganda: knowledge, attitudes, and barriers. *Journal of Community Health* 31(2):84-93.

Naicker, S., Plange-Rhule, J., Tutt, R.C. & Eastwood, J.B. 2009. Shortage of healthcare workers in developing countries – Africa. *Ethnicity and Disease.* 19(Supplement 1):60-64.

Nakwanga, A. 2004. [Online]. *Factors influencing utilisation of postnatal services in Mulago and Mengo Hospitals Kampala, Uganda*.
http://etd.uwc.ac.za/usrfiles/modules/etd/docs/etd_init_6986_1174047746.pdf
[Accessed 24 October 2014].

National Aids Control Programme. 2010. [Online]. *Strengthening HIV Strategic Information in Kenya – Adam Consortium. Report on Organizational Capacity in HIV Monitoring and Evaluation Rapid Needs Assessment, Western Province and North Rift Region, June 2010.*
www.nascop.or.ke
[Accessed on 2 September 2011].

National Patient Safety Agency. 2006a. [Online]. *A Guide to Using the Intrapartum Scorecard.*
www.nrls.npsa.nhs.uk/resources/?entryid45=66358
[Accessed on 22 October 2014].

National Patient Safety Agency. 2006b. [Online]. *Seven Steps to patient safety for primary care. The full reference guide.* London: National Patient Safety Agency. www.safetyandquality.gov.au/.../patient-safety-in-primary-health-care
[Accessed on 20 July 2012].

Ndavi, P.M., Ogola, S., Kizito, P.M. & Johnson, K. 2009. *Decentralizing Kenya's Health Management System: An Evaluation. Kenya Working Papers No. 1.* Calverton, Maryland: Macro International Inc.

Negussie, T. & Chepngeno, G. 2005. Determinants of Health Care Seeking for Childhood Illnesses in Nairobi Slums. *Tropical Medicine and International Health* 10(3):240-245.

Neighbour, R. 2005. *The Inner Consultation: How to Develop an Effective and Intuitive Consultation Style.* Reading, MA: LibraPharm Ltd.

Newick, L., Vares, T., Dixon, L., Johnston, J. & Guilliland, K. 2013. [Online]. *A midwife who knows me: Women tertiary students' perceptions of midwifery.*
http://dx.doi.org/10.12784/nzcomjnl47..1.5-9
[Accessed on 9 July 2014].

Ngunyulu, R.N. & Malaudzi, F.M. 2009. Indiginous Practices Regarding Post natal care at Sikhunyani Village in Limpopo Province of South Africa. *Africa Journal of Nursing and Midwifery* 1(11):48-64.

Nickhols, F. 2008. [Online]. *Strategy, Strategic Management, Strategic Planning and Strategic Thinking.*
www.nurjazuli.blog.undip.ac.id/files/2009/11/strategy_etc1.pdf
[Accessed on 7 June 2011].

Nieuwenhuis, J. 2007a. Introducing qualitative research. In Maree, K. (Ed.). *First steps in research*. Pretoria: Van Schaik Publishers.

Nieuwenhuis, J. 2007b. Qualitative research design. In Maree, K. (Ed.). *First steps in research*. Pretoria: Van Schaik Publishers.

Nieuwenhuis, J. 2007c. Analysing qualitative data. In Maree, K. (Ed.). *First steps in research*. Pretoria: Van Schaik Publishers.

Nolte, A.G.W. 2006.The Midwife. In Fraser, D.M., Cooper, M.A. & Nolte, A.G.W. (Eds). 2006. *Myles Textbook for midwives: African Edition*. Edinburgh: Churchill Livingstone.

Noorman, A.C., Barbara, M.K., Stekelenburg, J. & Milen, A. 2011. Improvement of maternal services through use of mobile phones. *Tropical medicine and International Health* 16(5):622-626.

Nurses Association & National Council of State Boards of Nursing. 2005. [Online]. *Joint Statement on Delegation.*
www.ncsbn.org/Joint_statement.pdf
[Accessed on 12 January 2013].

Nursing Council of Kenya. 2012a. *Standards of Nursing Education and Practice for Nursing in Kenya.* 2nd ed. Nairobi: Nursing Council of Kenya.

Nursing Council of Kenya. 2012b. *Kenya Nursing workforce report: The Status of Nursing in Kenya.* Nairobi: Nursing Council.

Nursing Times.net. 2008. [Online]. *Improving the performance appraisal system for nurses.*
www.nursingtimes.net/nursing-practice/career-development/improving-the-performance-appraisal-system-for-nurses/1314790.article
[Accessed on 1 April 2011].

Nyamwange, M. 2012. [Online]. *Economic Growth and Public Expenditure In Kenya (1982-2012).*
http://mpra.ub.uni-muende/43707
[Accessed on 23 June 2012].

Nyasulu, D.N. 2012. Community-based, family-centered postnatal care: The midwife's role. *African Journal of Midwifery and Women's Health* 6(1):35-40.

Obongo, S.O. 2009. Implementation of Performance contracting in Kenya. *International Public Management Review* 10(2):66-82.

Obonyo, B., Miheso, A. & Wamae, A. 2010. *Demographic and Health Survey 2008-2009.* Calverton, Maryland: KNBS and ICF Maco.

Ochako, R., Fotso, J.C., Ikamari, L. & Khasakhala, A. 2011. Utilization of maternal health services among young women in Kenya: Insights from the Demographic and health Survey, 2003. *BMC Pregnancy and Childbirth* 11(1): doi:101186/147-2393-11-1.

Offei, A.K., Bannerman, C. & Kyeremeh, K. 2004. *Healthcare Quality Assurance Manual for Sub-Districts in Ghana.* Accra: Ghana Health Service.

Ojwang, B.O., Ogutu, E.A. & Matu, P.M. 2010. Nurses' impoliteness as an impediment to patients' rights in selected Kenyan hospitals*. Health and Human Rights* 12(2):101-107.

Olayo, R., Wafula, C., Loum, C., Aseyo, E. & Kaseje, D. 2014. [Online]. *A quasi-experimental assessment of the effectiveness of Community Health Strategy on health outcomes in Kenya.*
www.biomedcentral.com/1472-6963/14/s/s3
[Accessed on 19 December 2014].

Olupeliyawa, A.M., Balasooriya, C.D. & Hughes, C. 2009. A review of the literature on teamwork competencies in healthcare practice and training: Implications for undergraduate medical education. *South East Asian Journal of Medical Education* 3(2):61-72.

Omolo, C. & Kizito, P. 2010. *Adult and Maternal Mortality. Hehya Demographic and health Survey.* Nairobi: National Bureau of Statistics.

Omaswa, F.G., Bainga, G., Mwebesa, H.G. & Burnham, G. 1994. *Quality Assurance for Health workers in Uganda: A Manual of quality Improvement Methods*. Uganda: Ministry of Health.

Onyeabochukwu, D.A. 2007. [Online]. *Cultural Practices and Health: The Nigerian Experience.*
http://medikkajournal.com/culturalpractices.htm
[Accessed on 12 March 2014].

Opiyo, S.A., Manguro, L.O.A., Ogur, J.A. & Wagai, S.O. 2010. Bioactive Constituents of Conyzafloribunda. *Research Journal of Pharmacology* 4:55-59.

Owek, C., Abongo, B., Oyugi, H., Oteku, J., Kaseje, D., Muruka, C. & Njuguna, J. 2013. Motivational Factors that Influence Retention of Community Health Workers in a Kenyan District. *Public Health Research* 3(5):109-115.

Pandey, S., Lama, G. & Lee, H. 2012. Effect of empowerment on women's utilization of health services: the case of Nepal. *International Social Work* 55(4):554-573.

Parker, L.E., Kirchner, J.E., Bonner, L.M., Fickel, J.J., Ritchie, M.J., Simons, C.E. & Yano, E.M. 2009. Creating a quality improvement dialogue: Utilizing knowledge from frontline staff managers and experts to foster health care quality improvement. *Quality Health Research* 19(2):229-242.

Programme for Appropriate Technology in Health. 2003. [Online]. *Guidelines for implementing supportive supervision: A step –bystep guide with tools to support immunization.* www.path.org/vaccinesresources/files/Guidelinines-for-suportive-supervision
[Accessed on 20 July 2013].

Pearcy, M. 2010. [Online]. *Achieving the Health Related MDGs: WHO Focuses on Health Systems Strengthening.*
www.ghd-net.org/sites/default/files/achieving_0.pdf
[Accessed on 20 March 2010].

Pearson, L. & Shoo, R. 2005. Availability and use of emergency obstetric services: Kenya, Rwanda, Southern Sudan, and Uganda. *International Journal of Gynecology and Obstetrics* 88(2):208-215.

Pembe, A.B., Urassa, D.P., Carlstedt, A., Lindmark, G., Nystrom, L. & Darj, E. 2010. Rural Tanzanian women's awareness of danger signs of obstetric complications. *BMC Pregnancy Childbirth* 9(12): doi:101186/1471-2393-9-12.

Persson, E.K., Fridlund, B., Kvist, L.J. & Dykes, A. 2011. Mothers' sense of security in the first postnatal week: interview study. *Journal of Advanced Nursing* 67(7):105-116.

Pietersen, J. & Maree, J.G. 2007. The quantitative research process. In Maree, J.G. (Ed.). *First steps in research*. Pretoria: Van Schaik.

Polit, D.F. & Beck, C.T. 2004. *Nursing Research: Principles and Methods* 7th ed. Philadelphia: Lippincot Williams and Wilkins.

Polit, D.F. & Beck, C.T. 2006. *Essentials of Nursing Research: Methods, Appraisal and Utilization.* Philadelphia: Lippincot Williams and Wilkins.

Population Council & UNFPA. 2007. [Online]. *Community midwifery implementation Guidelines in Kenya: Taking midwifery services to the community.*
www.unfpa.org [Accessed on 28 October 2013].

Potter, J. 2004. Discourse analysis as a way of analyzing naturally occurring talk. In Silverman, D. (Ed.). *Qualitative research: Theory, method, and practice*. Thousand Oaks, CA: Sage.

Pund, L.E. & Sklar, P. 2012. [Online]*. Linking Quality Assurance to Human Resources: Improving Patient Satisfaction by Improving Employee Satisfaction.* www.indiana.edu/~spea/pubs/undergrad-honors/volumn-6pund,linsey- [Accessed on 2 March 2013].

Qureshi, Z.P., Sekkade-Kigondu, C. & Mutiso, S.M. 2010. Rapid Assessment of Partograph Utilisation in Selected Maternity Units in Kenya. East African Medical Journal 87(6):235-241.

Raftopoulos, V., Savva, N. & Papadopoulou, M. 2011. Safety Culture in the Maternity units: a census survey using the Safety Attitudes Questionnaire. *BMC Health Services Research* 11(238): doi:10.1186/1472-6963-11-238.

Rakuom, C. 2010. [Online]. *Nursing Human Resources in Kenya: A Case study. International Centre for Human Resources in Nursing.* www.ichrn.com/publications/casestudies/ICHRN_Kenya_CaseStudy [Accessed on 23 March 2011].

Rayner, J., Forster, D., McLachlan, H., Yelland, J. & Davey, M.A. 2008. A state-wide review of hospital postnatal care in Victoria. The views and experiences of midwives. *Midwifery* 24(3):310-320.

Rayner, J.A., McLachlan, H.L., Forster, D.A., Peters, L. & Yelland, J. 2010. A statewide review of postnatal care in private hospitals in Victoria, Australia. *BMC Pregnancy and Childbirth* 10(26):10-26.

Raynor, M.D., Oates, M.R. & Sengane, M. 2006. The Psychology and Psychopathology of Pregnancy and Child birth. In Fraser, D.M., Cooper, M.A. & Nolte, A.G.W. *Myles Textbook of Midwives: African Edition.* Edinburgh: Churchill Livingstone.

Republic of Kenya. 2010. *MDG Acceleration Framework and Action Plan Improving Maternal and Neonatal Health*. Nairobi: Government Printers.

Regassa, N. 2011. Antenatal and postnatal care service utilization in southern Ethiopia: a population-based study. *African Health Science* 11(3):390-397.

Remme, J.H.F., Adam, T., Becerra-Posada, F., D'Arcangues, C., Devlin, M., Gardner, C., Ghaff, A., Hombach, J., Kengeya, J.F.K., Mbewa, A., Mbizvo, M.T., Mirza, Z., Pang, T., Ridley, R.G., Zicker, F. & Terry, R.F. 2010. Defining Research to Improve Health Systems. *PloS Medicine.* 7(11):1-3.

Riley, P.L., Vindigni, S.M., Arudo, J., Waudo, A.N., Kamenju, A., Ngoya, J., Oywer, E.O., Rakuom, C.P., Salmon, M.E., Kelley, M., Rogers, M., St. Louis, M.E. & Marum, L.H. 2007. Developing a nursing database system in Kenya. *Health Services Research* 42:1389-1405.

Roberfroid, D., Kolsteren, P., Hoerée, T. & Maire, B. 2005. Do growth monitoring and promotion programs answer the performance criteria of a screening program? A critical analysis based on a systematic review. *Tropical Medicine & International Health* 10(11):1121-1133.

Robert, D. 2013. Nursing workforce planning: insights from seven Malaysian hospitals. *British Journal of Nursing* 22(2):95-100.

Rockefeller Foundation. 2012. [Online]. *Global Health*. In *Who We Are*. www.m.rockfound.org/ [Accessed on 5 September 2012].

Rockfeller Foundation. 2013. [Online]. *Moving Kenya Towards Universal Health Coverage.* www.rockfellerfoundation.org/blog/moving-kenya-towards-universalhealth [Accessed on 10 June 2014].

Rossouw, D. 2003. *Intellectual tools: skills for the human sciences.* 2nd ed. Cape Town: Creda Communications.

Roussouw, G. 2005. Business ethics and corporate governance: A global survey. *Business Society* 44(1):32-39.

Royal Australian and New Zealand college of Obstetricians and Gynecologists. 2014 [Online]. *Standards of Maternity Care in Australia and New Zealand*. http://www.ranzcog.edu.au [Accessed on 20 November 2014].

Royal College of Nursing. 2014. *Nursing dashboards – measuring quality*. London: Royal College of Nursing.

Rudman, A., El-Khouri, B. & Waldenström, U. 2006. Women's satisfaction with intrapartum care—a pattern approach. *Journal of Advanced Nursing* 59:474–487.

Rutherford, M. 2008. Standardized Nursing Language: What Does it Mean for Nursing Practice? *OJIN: The Online Journal of Issues in Nursing* 13(1): DOI;10.3912/OJIN.Vol13No01ppT05.

Sadik, N. 1997. Reproductive health/family planning and the health of infants, girls and women. *Indian Journal of Pediatrics* 64:739-744.

Safe Motherhood. 1998. [Online]. *Improve the quality of maternal health services. World Health Day 7th April 1998*. www.safemotherood.org.htm [Accessed on 4 June 2010].

Safe Motherhood. 2002. [Online]. *Safe Motherhood: A matter of human rights and social justice.*
www.safemotherood.org.htm
[Accessed on 3 July 2012].

Safe Motherhood. 2011. [Online]. *Bixby Centre for Global Reproductive Health*.
www.bixbycenter.ucsf.edu/research/safe_motherhood.html
[Accessed on 9 June 2013].

Safe Motherhood. 2012. [Online]. *Safe Motherhood Initiative in Latin America and the Caribbean.*
www.aaas.confex.com/aaas/2012/webprogram/Paper8039.html
[Accessed on 5 June 2013].

Safe Motherhood and Reproductive Health Working Group. 2004. [Online]. *Maternal and Newborn Standards and Indicators Compendium.* Washington D.C.: CORE Group*.*
www.coregroup.org/...work/working-groups/safe-motherhood-and-reproductivehealth
[Accessed on 5 June 2013].

Safe Motherhood. A Review: 1987-2005. 2007. [Online]. *Safe Motherhood Initiative, Family Care International.*
www.familycareintl.org/.../SM_A%20Review_Exec_Sum_%20FINAL.p
[Accessed on 9 June 2013].

Sakala, C. & Corry, M.P. 2008. [Online]. *Evidence-Based Maternity Care: What It Is and What It Can Achieve.* New York: Millbank Memorial Fund.
www.milbank.org/uploads/documents/0809MaternityCare/0809MaternityCare.htl
[Accessed on 4 May 2011].

Sakala, C. & Kazembe, A. 2011. Factors influencing the utilization of postnatal care at one week and six weeks among mothers at Zomba Central Hospital in Malawi. *Evidence Based Midwifery* 9(4):113-136.

Salam, R.A., Lassi, Z.S., Das, J.K. & Bhutta, Z. 2014. [Online]. *Evidence from district level inputs to improve quality of care for maternal and new born health: Interventions and Findings.*
www.ncb.nih.gov/pmc/articles/PMC4160920
[Accessed on 3 October 2013].

Sample, J.A. 1984. [Online]. *Nominal Group Technique: An Alternative to Brainstorming.*
http://joe.org/joe1984march/iw2.html
[Accessed on 16 January 2008].

Sandall, J., Homer, C., Rudisill, C., Bourgeault, I., Bewley, S., Welson, P., Cowie, L., Cooper, C. & Curry, N. 2011. [Online]. *Staffing in Maternity Units: Getting the right people in the right place at the right time.* London: The King's fund. www.nmh.uts.edu.au/cmcfh/about/cmcfh-annual-2010.pdf [Accessed on 20 May 2010].

Say, L. & Raine, R. 2007. A systematic review of inequalities in the use of maternal health care in developing countries: examining the scale of the problem and the importance of context. *Bulletin of the World Health Organization* 85:812-819.

Sein, K.K. 2012. [Online]. *Beliefs and practices surrounding postpartum period among Myanmar women.* http://dx.doi.org/10.1016/j.midw.2012.11.012 [Accessed on 25 November 2013].

Senfuka, S. 2012. [Online]. *Advocating for Recruitment and Retention of Additional Health Workers in Uganda.* www.huffingtonpost.com/authorarchive/?samuel-senfuka/2012/02/ [Accessed on 7 June 2013].

Severinsson, E., Haruna, M. & Frieberg, F. 2010. Midwives' group supervision and the influence of their continuity of care model – a pilot study. *Management* 18(4):400-408.

Shaikh, B.T. & Hatcher, J. 2005. Health seeking behaviour and health service utilization in Pakistan: challenging the policy makers. *Public Health* 27:49-54.

Sharma, B. & Mavalankar, D. 2009. [Online]. *Towards midwifery based maternal care: A road map for India. Discussion paper prepared based on work done by consortium on Midwifery & EmOC. Draft prepared by IIMA, 4 September 2009.* www.unfpa.org/.../R376_Sharma_2009_INDIA_Road_map_for_Mi [Accessed on 10 February 2010].

Shekelle, P.G. 2013. Nurse-Patient ratio as a patient safety strategy. *Annals Internal Medicine* 158:404-409.

Sherratt, J.E. & Tjallinks, D. 2006. International Midwifery. In Nolte, A. (Ed.). *Myles Textbook for Midwives, South African edition.* Edinburgh: Churchill Livingstone.

Simbar, M., Ghafari, F., Zahrani, S.T. & Majd, H.A. 2009. Assessment of quality of midwifery care in labour and delivery wards of selected kordestan medical science university hospitals. *International Journal Health Care Quality Assurance* 22:266-277.

Sines, E., Syed, U., Wall, S. & Worley, H. 2007. [Online]. *Postnatal Care: A Critical Opportunity to Save Mothers and Newborns', Saving Newborn Lives, Save The Children, Population Reference Bureau.* http://www.prb.org/pdf07/snl_pncbrieffinal.pdf [Accessed on 9 June 2013].

Singh, P.K., Rai, R.K., Alagarajan, M. & Singh, L. 2012. Determinants of Maternity Care Services Utilization among Married Adolescents in Rural India. *PLoS ONE* 7(2):31.

Smart Global Health Policy. 2010. [Online]. *Report of the Center for Strategic and International Studies Commission on Smart Global Health Policy.* http://www.csic.org/publication/report-csis-commision-smart-global-health-policy [Accessed on 5 November 2014].

Smith, K.M. 2012. [Online]. *The Functions of supervision.* www.infed.org/biblio/functions_of_supervision.htm [Accessed on 2 July 2011].

Some, T.D., Sombie, I. & Meda, N. 2011. Women's perceptions of home births in two rural medical districts in Burkina Faso: a qualitative study. *Reproductive health* 8(3): doi;101186/1742-4755-8-3.

Speziale, J.A. & Carpenter, D.J. 2007. *Qualitative Research in Nursing: Advancing the Humanistic Imperative.* 4th ed. Philadelphia: Lippincott Williams & Wilkins.

Stevens, K. 2013. The Impact of Evidence-Based Practice in Nursing and the Next Big Ideas. *OJIN: The Online Journal of Issues in Nursing* 18(2):Manuscript 4.

Stockhausen, L. & Turale, S. 2011. An exploratory study of Australian nursing scholars and contemporary scholarship. *Journal of Nursing Scholarship* 43(1):89-96.

Syed, U., Asiruddin, S.K., Helal, M.S., Mannan, I.I. & Sang, M.J. 2006. Immediate and early postnatal care for mothers and newborns in rural Bangladesh*. Journal of Health, Population and Nutrition* 24(4):11.

Suarez, S.H. 2005. [Online]. *Protocols VS. Guidelines.* www.midwiferytoday.com/articles/protocolsversus.asp [Accessed on 27 April 2013].

Szczepura, A. 2005. Access to health care for ethnic minority populations. *Postgraduate Medical Journal* 81:141-147.

Tanner, C.A. 2006. Thinking Like a Nurse: A Research-Based Model of Clinical Judgment in Nursing. *Journal of Nursing Education* 45(6):204-211.

Tao, F., Huang, K., Long, X., Tolhurst, R. & Raven, J. 2011. Low postnatal care rates in two rural counties in Anhui Province, China: Perceptions of key stakeholders. *Midwifery* 27(5):707-715.

Taylor-Powell, E. 2002. [Online]. *Quick Tips - Collecting Group Data: Delphi Technique*. www.uwex.edu/ces/pdande/resources/pdf/Tipsheet4.pdf [Accessed on 1 June 2010].

Taylor-Powell, E. & Henert, E. 2008. [Online]. *Developing a logic model: Teaching and training guide, University of Wisconsin-Extension Cooperative Extension, Madison.* www.uwex.edu/ces/pdande/evaluation/pdf/lmguidecomplete.pdf [Accessed on 4 June 2012].

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists. 2014. *Standards of Maternity Care in Australia and New Zealand*. Victoria: RANCOG Publications.

The Skilled Care Initiative. 2005. [Online]. *Saving Women's Lives, Family Care International.* www.familycareintl.org/en/issues/35 [Accessed on 17 April 2011].

The White Ribbon Alliance. 2013. [Online]. *A guide for advocating for respectful Maternity Care.* www.whitebbonalliance.org/wp-content/uploads/2013/10RMC-Guide-Final.pdf [Accessed on 18 September 2014].

Thorestensson, S., Ekstrom, A., Lundgren, I. & Wah, E.H. 2012. Exploring Professional Support offered by Midwives during labour: An observational and interview study. *Nursing Research and Practice.* From: http://www.hindawi.com/journals/nrp/2012/648405/ [Accessed on 23rd April 2013].

Titaley, C.R., Dibley, M.J., Roberts, C.L., Hall, J. & Agho, K. 2009. Iron and folic acid supplements and reduced early neonatal deaths in Indonesia. *Bulletin of the World Health Organization* 88:500-508.

Titaley, C.R., Hunter, C.L., Peter, H. & Dibley, M.J. 2010. [Online]. *Why don't some women attendant Antenatal and Postnatal Care Services. A qualitative study of community members' perspectives in Garut, Sukabumi and Ciamis Districts of west Java Province, Indonesia*. www.biomedcentrl.com/1471-2393/10/61 [Accessed on 7 June 2012].

Tran, N.G., Portela, A., Bernis, L. & Beek, K. 2014. Developing Capacities of Community Health Workers in Sexual and Reproductive, Maternal, Neonatal, Child & Adolescent Health: A Mapping and Review of Training Resources. *Plos One* 9(4):1-9.

Turan, J.M., Bukusi, E.A., Cohen, C.R., Sande, J. & Miller, S. 2008. Effects of HIV/AIDS on Maternity Care Provision In Kenya. *Journal of Obstetric and Gynecological Nursing* 37(5):588-595.

United Nations Population Fund. 2007a. [Online]. *Expectation and Delivery: Investing in Midwives and others with Midwife Skills. Maternal Mortality Update 2006.* www.unfpa.org/webdav/site/global/shared/.../mm_update06_eng.pdf [Accessed on 2 July 2012].

United Nations Population Fund 2007b. [Online]. *Failure to deliver: Violation of Women's Rights in Kenyan Health Care Facilities.* www.unfpa.org/sowmy/resources/docs/library/R419_CenterRepRights_2007_KENYA_Failure_to_Deliver_Kenya-Human_Righrts_Centre.pdf [Accessed on 24 September 2013].

United Nations Population Fund. 2008. [Online]. *Maternal health care seeking behaviour in Ethiopia. Findings from Ethiopia Demographic and Health Survey. UNFPA*. www.ethiopia.unfpa.org/drive/MaternalHealth.pdf [Accessed on 20 August 2012].

United Nations Population Fund. 2010a. [Online]. *Maternal Deaths Worldwide drop by one Third.* www.unfpa.org/news/maternal-deaths-worldwide-drop-third [Accessed on 2 December 2013].

United Nations Population Fund. 2010b. [Online]. *Investing in Midwives and others with midwifery skills to accelerate progress towards MDG5.* www.unfpa.org [Accessed on 4 September 2012].

United Nations Population Fund. 2011a. [Online]. *Skilled attendance at birth*. www.unfpa.org/public/home/mothers/pid/4383 [Accessed on 25 September 2013].

United Nations Population Fund. 2011b. [Online]. *Midwifery around the world.* www.unfpa.org/sowmy/resources/docs/main_report/en_SOWMR_Part1.pdf [Accessed on 28 October 2013].

United Nations Population Fund. 2011c. [Online]. *The State of the World's Midwifery 2011*. www.unfpa.org/sowmy/resources/docs/main_report/en_SOWMR_Part1.pdf [Accessed on 24 September 2013].

United Nations Population Fund. 2012. [Online]. *No Woman should die while giving birth*.
www.unfpa.org/webdav/site/global/shared/factsheets/srh/ENSRH%20fact%20sheet-LifeandDeath.pdf
[Accessed on 24 September 2013].

United Nations International Children's Emergency Fund. 2004. [Online]*. Goal: Improve maternal health, Millennium Development Goals, Maternal Health, UNICEF*.
www.unicef.org/mdg/maternal.html
[Accessed on 24 May 2011].

UnChronicle. 2009. [Online]. *Double Actions for Mother and Newborn care*.
www.unchronicle.un.org/article/4-double-actions-mother-new-born-care
[Accessed on 3 July 2012].

University of Vermont Extension System. 1993. *Making Group Decisions. Fact Sheet no. 154.* Burlington*:* University of Vermont.

United States Agency for International Development. 2013. [Online]. *USAID Kenya Health Systems Strengthening.*
www.usaid.gov/news.information/fact-sheets/used-kenya-health-systemsstrengthening
[Accessed on 17 September 2014].

United States Agency for International Development. 2013. [Online]. *USAID Kenya Health Systems Strengthening.*
www.usaid.gov/news.information/fact-sheets/used-kenya-health-systemsstrengthening
[Accessed on 17 September 2014].

Uys, L.R. & Klopper, H.C. 2013. What is the ideal ratio of nurses for the South African public health system? *South African Journal of science* 109(5/6):1-4.

Van Brenda, A.D. 2005. Steps to analyzing multiple-group NGT data. *The Social Work Practitioner Researcher* 17(1):1-15.

Van der Walt, C. 2004. Quality in midwifery. In De Kock, J. & Van der Walt, C. *Maternal and newborn care: a complete guide for midwives and other professionals*. Paarl: Juta.

Varma, D.S., Khan, M.E. & Hazra, A. 2010. Increasing Postnatal Care of Mothers and Newborns including Follow-up Cord Care and Thermal Care in rural Uttar *Pradesh Journal of Family Welfare* 56(Special issue):31-43.

Vora, K.S., Mavalankar, D.V., Ramani, K.V., Upadhaya, M., Sharma, B., Iyengar, S., Gupta, V. & Iyengar, K. 2009. Maternal Health Situation in India: A Case Study. *Journal of Health Population and Nutrition* 27(2):184-201.

Wafula, E.M., Abinya, N.A.O., Karanja, J.G., Kaseja, D.C.O., Musoke, R. & Ogendo, S.W.O. 2009. *Clinical Guidelines for Management and Referral of Common Conditions at Level 2-3: Primary Care.* Nairobi: Ministry of Medical Services & Ministry of Public Health and Sanitation.

Wakaba, M., Mbindyo, P., Ochieng, J., Kiriinya, R., Todd, J., Waudo, A., Noor, A., Rakuom, C., Rogers, M. & English, M. 2014. [Online]*. The public sector nursing workforce in Kenya: a county-level analysis.* http://www.human-resources-health.com/content/12/1/6 [Accessed on 4 November 2014].

Warren, C. 2010. Care of the newborn: Community perceptions and health seeking behaviour. *Ethopia Journal of health and development* 24(Special issue 1):111-114.

Warren, C., Daly, P., Touré, L. & Mongi, P. 2006. [Online]. Postnatal Care Opportunities for Africa's Newborns. In Lawn, J. and Kerber, K. (Eds.). *Opportunities for Africa's newborns: Practical data, policy and programmatic support for newborn care in Africa Partnership for Maternal, Newborn and Child Health.* Cape Town: From www.who.int/pmnch/media/publications/aonsectionIII_4.pdf [Accessed on 29 October 2013].

Warren, C., Daly, P., Toure, L. & Mongi, P. 2008. [Online]. *Postnatal care*. www.who.int/pmnch/media/publications/aonsectionIII-4pdf [Accessed on 23 July 2013].

Warren, C., Mwangi, A., Oweya, E., Kamunya, R. & Koskei, N. 2010. Safeguarding maternal and newborn health: improving the quality of postnatal care in Kenya. *International Journal for Quality in Health Care* 22(1):24–30.

Warren, C., Shonwe, R., Waligo, A., Mahdi, M., Mazia, G. & Narayanan, I. 2008. *Repositioning postnatal care in a high HIV environment: Swaziland. Horizons Final Report.* Washington, DC: Population Council.

White, B. 1999. Measuring Patient Satisfaction: how to Do It and Why to Bother. Family Practice Management 6(1):40-44.

White Ribbon Alliance. 2012. [Online]. *Respectful maternity care: the universal rights of childbearing women*. http://www.whiteribbonalliance.org/WRA/assets/File/Final_RMC_Charter.pdf [Accessed on 14 July 2012].

WHO (World Health Organization). 2013a. [Online]. *World Health Organization Country Cooperation at a glance: Health and Development.* www.who.int/countryfocus/cooperation_strategy/ccsbrief_ken_en.pdf [Accessed on 20 November 2013].

WHO (World Health Organization). 2013b. [Online]. *Why Women still die in Pregnancy and Child birth?* www .who.int/features/qa/12/en/ [Accessed on 24 September 2013].

WHO (World Health Organization). 2012. [Online]. *Managing Access to Medicines and Health Technologies.* www.apps.who.int/medicinedoc/documents/s19577/en/s19577en.pdf. [Accessed on 12 August 2013].

WHO (World Health Organization). 2011a. *World Health Statistics*. Geneva: World Health Organization.

WHO (World Health Organization). 2011b. *Progress*. www.who.int/healthmetrics/news/monitoring_maternal_newborn_child_health.pdf [Accessed on 23 August 2014].

WHO (World Health Organization). 2011c. [Online]. *Strengthening Midwifery: A background paper*. www.whqlibdoc.who.int/publications/2011/9789241501965_module1_eng.pdf [Accessed on 1 June 2013].

WHO (World Health Organization). 2010a. [Online]. *Medicines: Essential Medicines Fact sheet.* www.who.int/mediacentre/factsheets/fs325/en/ [Accessed on 22 September 2013].

WHO (World Health Organization). 2010b. [Online]. *Trends in maternal mortality 1990-2008: Estimates developed by WHO, UNICEF, UNFPA and the World Bank*. Geneva: World Health Organization. www.unfpa.org/webdav/site/global/shared/documents/publications/2012/Trends_in_maternal_mortality_A4-1.pdf [Accessed on 24 September 2013].

WHO (World Health Organization). 2009. [Online]. *The Work of WHO in the African Region 2008–2009. Biennial Report.* Geneva: World Health Organization. www.afro.who.int/index.php?option=com_docman&task [Accessed on 24 February 2012].

WHO (World Health Organization). 2008a. [Online]. *Scaling up, saving lives, Global Health Workforce Alliance*.
www.who.int/workforcealliance/documents/Global_Health%20FINAL%20REPORT.pdf
[Accessed on 23 June 2013].

WHO (World Health Organization). 2008b. [Online]. *Source of information: Facility report system.*
www.who.int/healthinfo/statistics/toolkit_hss/EN_PDF_Toolkit_HSS_ServiceDelivery.pdf
[Accessed on 31 March 2014].

WHO (World Health Organization). 2007. [Online]. *Strengthening Health Systems to improve Health Outcomes: WHO'S Framework for Action.*
www.who.int/healthsystems/strategy/everybodys_business.pdf
[Accessed on 2 May 2010].

WHO (World Health Organization). 2006a. [Online]. *Services Availability Mapping*.
www.who.int/healthinfo/sam/en/
[Accessed on 2 March 2013].

WHO (World Health Organization). 2006b. [Online]. *The World Health Report 2006.*
www.who.int/whr/2006/en/
[Accessed on 4 June 2012].

WHO (World Health Organization). 2006c. [Online]. *Scaling up health workforce production. A concept paper towards the implementation of World Health Assembly resolution WHA 59.23.* Geneva*:* World Health Organization.
www.who.int/workforcealliance/knowledge/resources/scalingup_conceptpaper/en/index.html
[Accessed on 16 July 2012].

WHO (World Health Organization). 2004a. [Online]*. Human resources for health: overcoming the crisis. Joint Learning Initiative.*
www.hrhresourcecenter.org/node/31
[Accessed on 3 August 2012].

WHO (World Health Organization). 2004b. [Online]. *Making Pregnancy Safer: The Critical Role of the Skilled Attendant. Department of Reproductive Health and Research*. Geneva: World Health Organization.
www.whqlibdoc.who.int/publications/2004/9241591692.pdf
[Accessed on 9 June 2013].

WHO (World Health Organization). 2004c. [Online]. *Beyond the Numbers: Reviewing Maternal deaths to make pregnancy safer.* www.ino.searo.who.int/LinkFiles/Reproductive_health_Beyond_the_numbers.pdf [Accessed on 8 June 2013].

WHO (World Health Organization). 2001a. [Online]. *Draft Report of Technical Consultation of Effective Coverage*. www.who.int/healthsystems-performance/technical_consultations/effcov_report.pdf [Accessed on 5 March 2013].

WHO (World Health Organization). 2001b. [Online]. *Report of the Scientific Peer Group on Health Systems Performance Assessment.* Geneva: World Health Organization. www.who.int/health-systemsperformance/sprg/report_of_sprg_on_hspa.htm [Accessed on 19 June 2013].

Wholey, J.S., Hatry, H.P. & Newcomer, K.E. (Eds.). 2004. *Handbook of practical program evaluation*. San Francisco: Jossey-Bass.

Yakong, V. Rush, K., Bassett-Smith, J., Bottorff, J & Robinson, C. 2010. Women's experiences of seeking reproductive health care in rural Ghana: challenges for maternal health service utilization. *Journal of Advanced Nursing* 66(1):2431-2441.

Zhao, M., Isaac, M.H., Shian-Jiann, L. & Gabriel, A.V. 2009. *Simulations of Global Hurricane Climatology, Interannual Variability, and Response to Global Warming Using a 50-km Resolution GCM NOAA/Geophysical Fluid Dynamics Laboratory*. Princeton, New Jersey: Springer Science and Business Media.

Ziraba, A., Madise, N., Mills, S., Kyobutungi, C. & Ezeh, A. 2009. Maternal mortality in the informal settlements of Nairobi city: what do we know? *Reproductive Health* 6(6): doi:10:1186/1742-4755-6-6.

Zuyderduin, A., Obuni, J.D. & McQuide, P.A. 2010. Strengthening the Uganda nurses' and midwives' association for a motivated workforce. *International Nursing Review* 57(4):419-425.

APPENDIX I: QUESTIONNAIRE

Please complete the questionnaire as honest as possible. Mark your options with an X in the appropriate box or write your answers on the space provided.

For official use

		3
		4 - - 9

1. Date questionnaire is completed (dd/mm/yy…/…/……

2. What is your gender?

Male (1)	Female(2)		**10**

3. What is your age? ……..years | | **11--12**

4. What is your highest level of education? | | **13**

1	Masters
2	Bachelors
3	Diploma
4	Certificate

5. When did you attain the above Midwifery/Nursing education? | | **14**

1	2010
2	2005-2009
3	2000-2004
4	1995-1999
5	Before 1995

6. At what level of hospital are you currently offering postnatal services? | | **15**

1	Referral
2	Provincial
3	District

7. Please indicate the province where you offer postnatal services currently? | | **16**

1	Nairobi
2	Central
3	Eastern

4	North Eastern
5	Rift Valley
6	Western
7	Nyanza
8	Coast

8. Please indicate the district where you currently offer postnatal services. ☐ **17**

_____

9. Are there postnatal mothers nursed in a ward/room designated only for postnatal mothers? ☐ **18**

Yes(1)	No(2)

10. Were you given adequate orientation when you were posted to the maternity unit/postnatal ward? ☐ **19**

Yes(1)	No(2)

11. Did your orientation include familiarisation with guidelines for postnatal care? ☐ **20**

Yes(1)	No(2)

12. Did your orientation include familiarisation with protocols for postnatal care? ☐ **21**

Yes(1)	No(2)

13. Do you have immediate access to policies for postnatal care in your maternity unit/postnatal ward? ☐ **22**

Yes(1)	No(2)

14. Do midwives in this hospital participate in continuing professional education to get updates on technical competence to offer postnatal care services? ☐ **23**

Yes(1)	No(2)

15. Do you think you have enough theoretical knowledge to render quality postnatal care services? ☐ **24**

Yes(1)	No(2)

16. If your response to the above question is no please identify the aspects that you need more knowledge on. ☐☐☐ **25--27**

1	Identification of obstetric emergencies
2	Management of obstetric emergencies
3	Documentation

17. Do midwives working in the maternity unit/postnatal ward of this hospital work as a team? **28**

Yes(1)	No(2)

18. Has your performance in the maternity unit/postnatal ward ever been evaluated by the hospital management? **29**

Yes(1)	No(2)

19. If the answer to the above question is yes, did you receive any feedback? **30**

Yes(1)	No(2)

20. Do midwives in the maternity unit /postnatal ward in your hospital receive enough supervision? **31**

Yes(1)	No(2)

21. If yes by whom? **32**

1	Chief Nurse
2	Nurse Manager
3	Ward-in-Charge
4	Doctor-in-Charge

22. If the answer to no.20 is no, what do you think should be done? **33**

1	A training of hospital/unit managers be conducted by department of reproductive health
2	A training of supervisors be initiated by department of reproductive health
3	A reorientation of all hospital staffs be conducted to remind all the staff of their responsibilities

23. Is the management at your hospital open to change that is evidence based? **34**

Yes(1)	No(2)

24. If yes in which way? **35**

1	Encourage staff to undertake/participate in research
2	Allocate funds for research activities
3	Organise forums for dissemination of research results.

4	Changing of policies as per research results

If the answer to no. 24 is no, in which of the ways are they not open to this change? **36**

1	Refusing research activities to be undertaken at the hospital.
2	Insisting on the way of performing procedures irrespective of research results.
3	Reluctance to change policies even when research results have shown otherwise.

26. How often are consumable materials used in the care of postnatal mothers supplied in your hospital? **37**

1	Daily
2	Thrice a week
3	Twice a week
4	Once a week

27. Is it acceptable to order supplies on any other day if you run short of supply? **38**

Yes(1)	No(2)

28. Do you receive the same kind of support while working at the postnatal ward as you do while working at the antenatal clinic or labour ward? **39**

Yes(1)	No(2)

29. Do the religious beliefs of the client have any influence in the provision of postnatal care services in this region? **40**

Yes(1)	No(2)

30. Do the religious beliefs of the health care provider (midwife) have any influence in the provision of postnatal care services? **41**

Yes(1)	No(2)

31. Do cultural practices in this region cause any hindrances to the provision of postnatal care services? **42**

Yes(1)	No(2)

If yes, explain:

		43-44
		45-46
		47-48

32. Do differences in age between the midwife and patient s in your region interfere with the provision of postnatal care services? | | **49**

Yes(1)	No(2)

33. If yes, explain:

		50-51
		52-53
		54-55

34. Are the postnatal mothers in your hospital accorded the same attention as those in antenatal and labour wards? | | **56**

Yes(1)	No(2)

35. If no, explain:

		57-58
		59-60
		61-62

36. Are postnatal mothers in your hospital involved in decision-making concerning their care and that of their infants? | | **63**

Yes(1)	No(2)

37. Are postnatal mothers in your hospital treated with respect and dignity? | | **64**

Yes(1)	No(2)

38. If the answer to the above is YES, please explain:

		65-66
		67-68
		69-70

39. Is counselling considered an important aspect of postnatal care in your hospital? | | **71**

Yes(1)	No(2)

40. If yes, explain:

		72-73
		74-75
		76-77

41. Are postnatal follow-up appointments made before the clients are discharged from the hospital? | | **78**

Yes(1)	No(2)

42. If yes, when do they attend the clinic? | | **79**

1	1st 3 days
2	2 weeks
3	6 weeks

43. On a scale of 1 to 5, please indicate how important you rate postnatal care. | | **80**

1	Not at all
2	Not that important
3	Important
4	Very important
5	Extremely important

Thank you very much for your participation.

APPENDIX II: CHECKLIST

For office Use only

APPENDIX II **TYPE OF HOSPITAL……** ☐☐☐ 1-3

CHECKLIST

PERSONNEL

1. The average number of mothers who give birth per month at this hospital, are_____ ☐☐☐☐ 4-7

2. The average age of mothers who give birth at this hospital, is _____years. ☐☐ 8-9

3. The nurse: patient ratio adequate according to the Nursing Council requirements, is. 10

MEDICATIONS AVAILABLE

		Yes	No	
1.	Adrenaline	☐	☐	11
2.	Ampicillin	☐	☐	12
3.	Amoxyl	☐	☐	13
4.	Antiretroviral treatment	☐	☐	14
5.	Augumenti	☐	☐	15
6.	Brufen	☐	☐	16
7.	Calcium gluconate	☐	☐	17
8.	Ceftriaxone	☐	☐	18
9.	Crystapen	☐	☐	19
10.	50% Dextrose	☐	☐	20
11.	Diazepam	☐	☐	21
12.	Ergometrine	☐	☐	22
13.	Flagyl	☐	☐	23
14.	Hydralazine	☐	☐	24
		☐	☐	

☐

		Yes	No	
15.	Hydrocortisone			25
.	Insulin			
17.	Lasix	☐	☐	27
18.	Lidocaine	☐	☐	28
19.	Magnesium sulphate	☐	☐	29
20.	Misoprosol	☐	☐	30
21.	Morphine	☐	☐	31
22.	Naloxone	☐	☐	32
23.	Nifedipine	☐	☐	33
24.	Normal saline	☐	☐	34
25.	Panadol	☐	☐	35
26.	Pethidine	☐	☐	36
27.	Pitocin (oxytocin)	☐	☐	37
28.	Phenytion	☐	☐	38
29.	Sodium bicarbonate	☐	☐	39
30.	Tramadol	☐	☐	40

EQUIPMENT

1.	A container for disposing sharps is available	☐	☐	41
2.	A container with 1-6 Jik and water for decontamination of re-usable equipment, is available	☐	☐	42
3.	A container with clean soapy water, is available	☐	☐	43
4.	Adult intravenous tubing sets	☐	☐	44
5.	Adult face mask	☐	☐	45
		Yes	No	
6.	Ambubag	☐	☐	46

7. B/P machine in good working order	☐	☐	47
8. Baby weighing scale available	☐	☐	48
9. Bed linen supplies are sufficient adequate	☐	☐	49
10. Blood administration tubing sets	☐	☐	50
11. Canulas	☐	☐	51
12. Containers for disposable used materials available	☐	☐	52
13. Intravenous therapy stands available in each rooms	☐	☐	53
14. Environmental cleaning equipment and supplies available	☐	☐	54
15. Examination bed	☐	☐	55
16. File trolley available	☐	☐	56
17. HIV Testing kit	☐	☐	57
18. Jik for disinfection	☐	☐	58
19. Laryngoscope	☐	☐	59
20. Needles gauge 21	☐	☐	60
21. Needles gauge 23	☐	☐	61
22. Neonatal face mask	☐	☐	62
23. Oxygen cylinder / Piped Oxygen	☐	☐	63
24. Paediatric Intravenous tubing sets	☐	☐	64
25. Record sheets available for documentation	☐	☐	65

26. Chairs available for the postnatal mothers	☐	☐	66
27. Soap for cleaning	☐	☐	67
28. Suction bulb	☐	☐	68
29. Tape measure available	☐	☐	69
30. Space between beds of approximately one meter for nursing postnatal mothers	☐	☐	70
31. Thermometer available	☐	☐	71
32. Uri-stick for urine testing	☐	☐	72
33. Suction machine in working order	☐	☐	73
33. IV Fluids	☐	☐	74
34 Monitoring charts	☐	☐	75

POLICIES ACCESSIBLE

		Yes	No	
1.	Essential obstetric care manual for health service providers in Kenya, accessible to nursing personnel	☐	☐	76
2.	Kenya National Reproductive Health Manual for service providers accessible to nursing personnel	☐	☐	77
3	Road-to-Health cards for documenting weight profile of infant and immunisations administered.	☐	☐	78

APPENDIX III: CONSENT

INFORMATION DOCUMENT

Study title: A Framework to improve postnatal care in Kenya.

I, Dinah Chelagat, a PhD student at the University of the Free State, South Africa and a lecturer at Moi University School of Medicine in the Department of Nursing Sciences, hereby request you to participate in the above mentioned research study. The purpose of this phase of the study is to determine factors contributing to the current state of postnatal services in Kenya.

Participation in this study is voluntary and you may terminate your participation at any given time. You will not be penalized or lose benefits if you refuse to participate in the study.

Participation will not be biased and no compensation will be offered. This study has no risks involved. The only disadvantage is the time consumed during the nominal group discussion.

Results will be published after completion of the research study and all information will be depersonalized to ensure privacy and confidentiality. If you agree to participate, you will receive a signed copy of this document as well as the letter of consent that you need to sign.

You may contact the secretariat of the Ethics Committee of the Faculty of Health Sciences UFS at telephone number (051) 4052812 or Institutional Research and Ethics Committee (IREC) of Moi University at (+254)5333471/2/3, if you have questions about your rights as a research participant.

For any enquiries regarding the study, the researcher Dinah Chelagat, can be contacted at +254722441077.

Best Regards,
Dinah Chelagat.

……
……
Researcher Date
……

APPENDIX: IV: RESEARCH AUTHORIZATION LETTER 1

Tel: 254-(053)-2063013
Fax: 254-053-33041
E-mail: mufhs@net2000ke.com

Moi Teaching & Referral Hospital Bldg
First Floor
P.O. Box 4606-30100,
Eldoret,
KENYA.

MOI UNIVERSITY

Dinah Chelagat
Moi University, School of medicine
Department of Nursing Sciences

10th May 2011

Medical Officer in charge

……..Hospital

Dear Sir/Madam,

RE: PERMISSION TO UNDERTAKE RESEARCH IN YOUR HOSPITAL

I, Dinah Chelagat, a lecturer at the Department of Nursing Sciences of Moi University, is currently a PhD student at the University of the Free State, South Africa. I am planning to conduct a research study and the purpose thereof is the development of a framework to improve postnatal care services in Kenya.

I hereby request permission to request midwives allocated to maternity/postnatal units, to voluntarily complete a questionnaire that will take 15-20 minutes of their time. I will also be complete a checklist at the same time.

I will start gathering the above data after obtaining approval from the Ethics Committee from the Health Science at the University of the Free State and that of Moi University and Moi Teaching and Referral Hospital.

Your cooperation would be highly appreciated.

DINA CHELAGAT

APPENDIX: V: RESEARCH AUTHORIZATION LETTER 2

Tel: 254-(053)-2063013
Fax: 254-053-33041
E-mail: mufhs@net2000ke.com

Moi Teaching & Referral Hospital Bldg
First Floor
P.O. Box 4606-30100,
Eldoret,
KENYA.

MOI UNIVERSITY

Dinah Chelagat
Department of Nursing Sciences
Moi University, School of Medicine

9 May 2011

The Head Division of Reproductive Health,
Old Mbathi Road,
P. O BOX 43319,
NAIROBI.

Dear Sir/Madam,

RE: PERMISSION TO UNDERTAKE A NOMINAL GROUP DISCUSSION WITH NATIONAL AND PROVINCIAL REPRODUCTIVE HEALTH COORDINATORS

I, Dinah Chelagat, a lecturer in the Department of Nursing Sciences of Moi University, is currently a PhD student at the University of the Free State, South Africa. I am planning to conduct a research study and the purpose thereof is the development of a Framework to improve postnatal care services in Kenya.

I hereby request permission to undertake a Nominal Group Discussion with the above reproductive health coordinators with the purpose of identifying strategies that can be implemented to improve the postnatal care services in Kenya. This discussion will be facilitated by an expert in the Nominal Group Technique. The planned discussion will take 2 -3 hours. The venue and time will be communicated to the coordinators well in time. Traveling and accommodations costs will be met by Moi University. A meeting to validate the Framework development, will be convened as a follow up to this discussion in which the same coordinators will be requested to participate.

The above discussion will take place after approval from the Ethics Committee from the Health Science at the University of the Free State, Moi University and Moi Teaching and Referral Hospital, has been obtained.

Your cooperation would be highly appreciated.

DINAH CHELAGAT

APPENDIX VI: CONSENT FOR THE NOMINAL GROUP DISCUSSION

I……..hereby give consent to participate in the Nominal Group Discussion which purpose is to identify strategies that can be implemented in Kenyan Hospitals to improve postnatal care services.

I am aware that my participation in this study is voluntary and that I may terminate participation at any given time. I will not be penalised or lose benefits if I refuse to participate in the study.

Participation in this study will take approximately 3 hours and I will receive no compensation. I have been informed about the purpose of the study and acknowledge what my involvement to this study means.

I will receive a signed copy of this document as well as the participant information document, which is a written summary of the research.

I may contact the secretariat of the Ethics Committee of the Faculty of Health Sciences, UFS at telephone number (051)4052812 or Institutional Research and Ethics Committee (IREC) of Moi University at (+254)53 33471/2/3, if I have questions about my rights as a research subject.

The research study as well as the above information has been verbally explained to me by the researcher.

……

……

Signature of participant Date

……

INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE (IREC)

MOI TEACHING AND REFERRAL HOSPITAL
P.O. BOX 3
ELDORET
Tel: 33471/2/3

MOI UNIVERSITY
SCHOOL OF MEDICINE
P.O. BOX 4606
ELDORET
Tel: 33471/2/3

Reference: IREC/2011/68

28th July, 2011

Approval Number: 000675

Ms. Dinah Chelagat
Moi University
School of Medicine
P. O. Box 4606-30100
ELDORET - KENYA

Dear Ms, Chelagat

RE: FORMAL APPROVAL

The Institutional Research and Ethics Committee have reviewed your research proposal titled:

"A framework to improve postnatal care in Kenya"

Your proposal has been granted a Formal Approval Number: **FAN: IREC 000675** on 28th July, 2011. You are therefore permitted to begin your investigations.

Note that this approval is for 1 year; it will thus expire on 27th July, 2012. If it is necessary to continue with this research beyond the expiry date, a request for continuation should be made in writing to IREC Secretariat two months prior to the expiry date.

You are required to submit progress report(s) regularly as dictated by your proposal. Furthermore, you must notify the Committee of any proposal change (s) or amendment (s), serious or unexpected outcomes related to the conduct of the study, or study termination for any reason. The Committee expects to receive a final report at the end of the study.

Yours Sincerely,

29/07/2011

DR. W. ARUASA
AG. CHAIRMAN
INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE

INSTITUTIONAL RESEARCH & ETHICS COMMITTEE
APPROVED
28 JUL 2011
P.O. Box 4606 ELDORET

cc:
	Director	-	MTRH
	Dean	-	SOM
	Dean	-	SPH
	Dean	-	SOD

UNIVERSITEIT VAN DIE VRYSTAAT
UNIVERSITY OF THE FREE STATE
YUNIVESITHI YA FREISTATA

Direkteur: Fakulteitsadministrasie / Director: Faculty Administration
Fakulteit Gesondheidswetenskappe / Faculty of Health Sciences

Research Division
Internal Post Box G40
☎(051) 4052812
Fax (051) 4444359

E-mail address: StraussHS@ufs.ac.za

Ms H Strauss

2011-06-10

MS D CHELAGAT
DEPT OF NURSING SCIENCES
SCHOOL OF MEDICINE
MOI UNIVERSITY
P O BOX 4606-30100
ELDORET
KENYA

REC Reference number: REC-230408-011
IRB nr 00006352

Dear Ms Chelagat

ECUFS NR 72/2011
MS DJ CHELAGAT **SCHOOL OF NURSING**
PROJECT TITLE: **A FRAMEWORK TO IMPROVE POSTNATAL CARE IN KENYA.**

- You are hereby kindly informed that the Ethics Committee approved the above study at the meeting held on 07 June 2011.

  [Dr L Roets, who is a member of the Ethics Committee did not take part in the discussion of this study]

- Committee guidance documents: Declaration of Helsinki, ICH, GCP and MRC Guidelines on Bio Medical Research. Clinical Trial Guidelines 2000 Department of Health RSA; Ethics in Health Research: Principles Structure and Processes Department of Health RSA 2004; Guidelines for Good Practice in the Conduct of Clinical Trials with Human Participants in South Africa, Second Edition (2006); the Constitution of the Ethics Committee of the Faculty of Health Sciences and the Guidelines of the SA Medicines Control Council as well as Laws and Regulations with regard to the Control of Medicines.

- Any amendment, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

- The Committee must be informed of any serious adverse event and/or termination of the study.

- A progress report should be submitted within one year of approval of long term studies and a final report at completion of both short term and long term studies.

- Kindly refer to the ECUFS reference number in correspondence to the Ethics Committee secretariat.

Yours faithfully

ACTING CHAIR: ETHICS COMMITTEE

Cc Dr L Roets

Validation Meeting Programme

Moi University Nairobi Campus-12th March 2014

Time	Activity	Facilitator
8:30am-9:00 am	Registration	Grace Jeptui
9:00am-9:30am	Climate setting	DRH representative
9:30am-10:00am	Recap of previous meeting the identification of strategies (April 2012)	Dinah Chelagat
10:00am-10:30am	Health break	
10:30am-1:00pm	Validation of the framework	Dinah Chelagat
1:00pm-2:00pm`	Lunch	All
2:30pm	Logistics and departure	Grace Jeptui

Validation Meeting Programme

Moi University Nairobi Campus-12th March 2014

Time	Activity	Facilitator
8:30am-9:00 am	Registration	Grace Jeptui
9:00am-9:30am	Climate setting	DRH representative
9:30am-10:00am	Recap of previous meeting (2012)	Dinah Chelagat
10:00am-10:30am	Health break	
10:30am-1:00pm	Validation of the framework	Dinah Chelagat
1:00pm-2:00pm`	Lunch	All
2:30pm	Logistics and departure	Grace Jeptui