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Management of the Free Health Care Initiative in Sierra Leone: D*oes* the *Health Workforce* have the Right Managerial Competencies?

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Management of the Free Health Care Initiative in Sierra Leone: D*oes* the *Health Workforce* have the Right Managerial Competences?

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ABSTRACT

A 2007 WHO report outlined that many least developed countries will not meet the United Nations health related Millennium Development Goals because the health workers did not possess the appropriate managerial competencies. The public health care system in Sierra Leone, a Least Developed Country, is implementing a Free Health Care Initiative targeting pregnant women and children under five years.

The focus of this study is to determine if the health workers have the right managerial competencies to implement the Free Health Care Initiative by identifying the health workers perceptions on the relevant managerial competencies and the competency gaps.

39 managerial competencies derived from a similar study in South Africa were analysed in health facilities in the Western Health District of Sierra Leone. The qualitative findings showed that clusters of skills related people management, strategic management, tasks, self-management and health delivery were most important to the health workers and personal competency requirements included computing, staff motivation and communication skills.

The findings have broader relevance for stakeholders in the public sector healthcare management and quantitative research is recommended across all 12 Health Districts of Sierra Leone for all level of health workers.

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Glossary

AfDB	African Development Bank
AIDS	Acquired Immune Deficiency Syndrome
CHO	Community Health Officer
COMAHS	College of Medicine and Allied Health Sciences
DFID	[UK] Department for International Development
DHMT	District Health Management Team
EHO	Environmental Health Officer
FHC	Free Health Care
HIV	Human Immuno Deficiency Virus
HR	Human Resources
HRM	Human Resource Management
IPAM	Institute of Public Administration and Management
LMF	Leadership and Management Framework
MBA	Master of Business Administration
MCH	Maternal and Child Health
MCHPs	Maternal and Child Health Posts
MDGs	Millenium Development Goals
MLCF	Medical Leadership Competency Framework
MOHS	Ministry of Health and Sanitation
MPH	Master of Public Health
NHSSP	National Health Sector Strategic Plan, 2010-2015
PHUs	Peripheral Health Units
SECHN	State Enrolled Community Health Nurse
SLMDA	Sierra Leone Medical and Dental Association
SLNA	Sierra Leone Nurses Association
SPSS	Statistical Program for Social Sciences
UNICEF	United Nations Childrens Fund
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In today's competitive economy and rapid globalisation of markets, there is growing interest in the relationships between organisational performance and managerial performance and competencies. Globally, the success of organisations has been found to be related to the effectiveness of their management teams and the combined knowledge and skills of the organizations workforce which requires the identification of key management and specialist competencies that are both adequate and appropriate to organizations (Pickett 1998).

The terms 'Competency' and 'competence' focus on personal attributes of individuals and are behaviors and technical attributes individuals must possess or acquire to be able to perform effectively at work. Both competence and competency are extensive concepts that relate to behavioral inputs and performance outputs and could also relate to a set of minimum standards required for effective work performance that are contained in a 'competency framework'. Competency frameworks outline and define the individual competencies required by individuals in organizations such as problem-solving or people management (CIPD 2010).

1.1.2 Managerial Competencies and Managerial Competency Frameworks

The discourse on the terms 'competency' and 'competencies' is wide and varied and the term 'managerial competencies' has steadily emerged over the years to describe managerial performance in organizations. The term 'Competencies' is an encompassing term that describes the characteristics, traits and behaviour required for a successful or superior job performance and another related term, 'managerial competencies' has steadily emerged over the years to describe managerial performance in organizations. 'Managerial Competencies' is frequently used to refer to the competencies possessed by successful managers and that there is a strong relationship between managerial competencies and organizational competencies (Abraham et al 2001). Managerial or Management competency frameworks are developed to improve the performance of organizations by identifying the key competencies required to effectively perform a role and measuring managers

performance against those identified competencies. Managerial competency frameworks are also used in organizations to align human resource activities with organizational needs (Pickett 2008). In the United Kingdom, the Management Charter Initiative (MCI) has outlined a set of competencies or skills for managers within a competency framework to ensure effective management of organizations across all occupational sectors.

Managerial competencies and competency frameworks now have a wider recognition and utilisation across several workforce sectors which include the healthcare, engineering, education and information technology sectors. The most common reported results of managerial competency programs include an improvement in staff performance and achievement, an increase in staff motivation, development of a more flexible and highly skilled workforce, higher levels of customer service and improved quality levels (Pickett 2008).

1.1.3 Managerial Competencies and Health Care Management

In the Health Care sector, there has been a rapid evolution of health care organizations and the key management functions of planning, controlling, organizing have become complex processes. Health Care professionals who come from diverse backgrounds are increasingly taking up management roles and need to have managerial competencies to run their organizations effectively. Some critical managerial Competencies identified for managers in the health care industry are clustered in four domains (Anderson and Pullich, 2002):

Planning: Goal Setting, Decision Making
Organizing: Cooperating, Coordinating
Leading: Communicating, Conflict Management, Professionalism
Controlling: Empowerment of employees

Managerial competencies have also been outlined for the health care professionals within the framework of competency frameworks. In the USA, the Healthcare Leadership Alliance (HLA), a consortium of six major professional membership organizations in the health care industry has outlined managerial competencies in five competency domains for practicing healthcare managers (Stefl, 2008) which are Communication and relationship management; Professionalism; Leadership; Knowledge of the healthcare system; Business skills and knowledge.

Similarly, in the United Kingdom, managerial competencies have been outlined in five competency domains within the Medical Leadership Competency Framework (MLCF) by the Royal Medical Colleges and the National Health Service for the medical workforce. Both competency frameworks which are widely used in the USA and the UK, are utilised in management courses at medical schools, the development of curricula and management education.

1.2 Problem Discussion

The Health Sector in Sierra Leone

Sierra Leone has one of the lowest health indicators in the world, with life expectancy of 47 years, an infant mortality rate of 89 per 1,000 live births, an under-five mortality rate of 140 per 1,000 live births and a maternal mortality ratio of 857 per 100,000 births. The country has a government regulated pluralistic health care delivery system delivered by the public sector, private sector, faith based organisations and non governmental organizations. (NHSSP,2010). 89 % of the health care delivery is provided by the public sector at three levels:

1. peripheral health units (community health centres, community health posts, and maternal and child health posts) for first line primary health care
2. district hospitals for secondary care
3. regional /national hospitals for tertiary care.

At levels two and three, DHMTs headed by a DMO supervise the PHUs and district hospitals which provide district health services. They are responsible for planning, implementation, coordination, monitoring and evaluation of the district health services. Other DHMT members include the medical officer in charge of the district hospital and officers for various programs and units.

The district health services comprise of a network of PHUs, the district hospitals and the DHMTs. The PHUs which provide first line health services are made up of MCHPs (situated at village levels with populations of < 5000) and CHPs (situated at town levels with populations of up to 15000-20000). The PHUs are staffed by MCH Aides , SECHNs, Pharmacy technicians, EHOs and CHOs who are trained to provide services like: antenatal care, supervised deliveries, postnatal care, family planning, growth monitoring and promotion for under-five children, immunisation, health education, management of minor ailments, prevention and control of communicable diseases

and referral of cases to the district hospitals. At the next level, the district hospitals provide inpatient and outpatient services, diagnostic services, management of accidents and emergencies and technical support to PHUs. They are staffed by medical specialists, medical doctors, pharmacists and pharmacy technicians, registered nurses, registered midwifes and CHOs.

Millenium Development Goals and the Health Sector

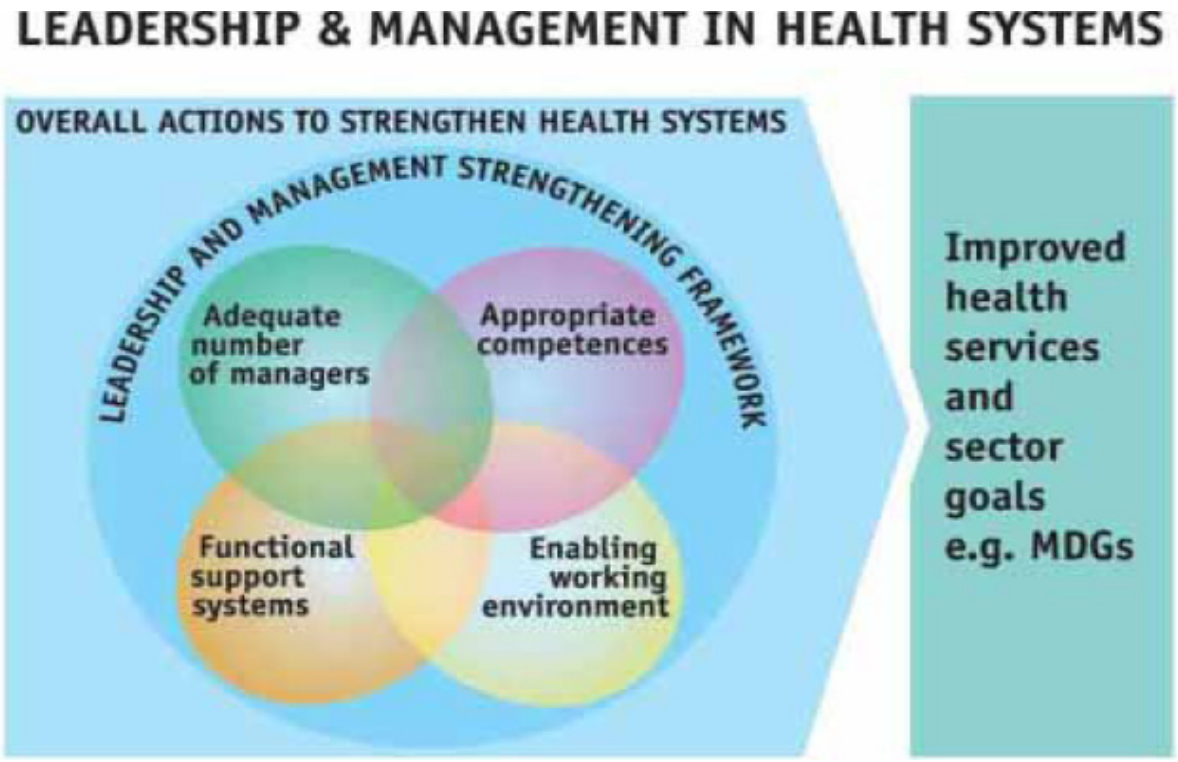
In 2000, 189 countries signed the United Nations Millennium Development Goals (MDGs) for human development. Goals four, five and six are health related: reducing child mortality; improving maternal health; and combating HIV/AIDS, malaria and other diseases. Progress in achieving the MDG's varies across the world and reports indicate that many developing nations of the world will not be able to achieve the 2015, particularly the health related goals. There is growing consensus that the best way to achieve the health related goals of the MDGs is through health systems. Critical to every health system is an efficient and trained workforce capable of delivering efficient and quality services. A dearth of this kind of workforce adversely affects progress and national rankings on achieving the MDG's**.**

Leadership and Management in Health Systems

The World Health Organization (WHO) recognises that many low-income countries face challenges in achieving the health-related MDG's and reports that a lack of leadership and management capacity at operational levels in the private and public health sectors was a constraint to achieving the health related MDGs in addition to other factors (Waddington et al, 2007). They report on a WHO international consultation on the strengthening of health leadership and management in low-income countries. In this consultation four major outputs that provided an overarching framework for strengthening leadership and management in low-income countries were developed. In output 1, Leadership and management were recognized as complex concepts that could be applied to different parts of the health system which included the private and public sectors; health facilities, district health offices; Line ministries; pharmaceuticals and human resource issues pertaining to the skills and motivation needed by managers and leaders to work in a health system (Waddington, 2007).

From this output, the WHO developed a framework of four dimensions which outline the conditions necessary for good management and leadership in a health system (Figure 1.1).

Figure 1.1 Leadership and Management Framework



Source: (Waddington 2007)

1. Adequate number of managers - having adequate numbers and deployment of managers throughout the health system.
2. Appropriate competencies - ensuring that managers have appropriate competencies (knowledge, skills, attitudes and behaviours)
3. Functional support system - existence of functional critical support systems (to manage money, staff, information, supplies, etc.)
4. Enabling working environment - creating an enabling working environment (roles and responsibilities, organizational context and rules, supervision and incentives, relationships with other actors).

In this framework, effective management and leadership of health systems, required a balance between all four dimensions and there are a series of activities under each dimension to facilitate the leadership and management processes in health systems (Appendix 1) . In the dimension relating to managerial competencies, Waddington (2007) reported that the recurring key findings were:

1. Most low-income countries did not use competency frameworks and lacked a national plan to obtain these competencies.
2. Competency development did not focus the on the provision of generic competencies but rather on short term needs.
3. Training activities were ad-hoc, un coordinated and focussed on individual knowledge and not on skills, attitudes and behaviours of management teams.

Managerial competencies and competency frameworks are of vital importance to the efficiency and functioning of any healthcare system and any competency gaps particularly in the public sector healthcare system could affect and influence progress on achieving the MDG's by sub Saharan countries. In Sub –Saharan Africa, the public sector health care system is the main vehicle for the delivery of health care services. Pillay (2008) appraised and ranked perceptions on the relevance and importance of managerial competencies in public and private health care organizations in South Africa and found out that there was greater awareness of the role and importance of managerial competencies in healthcare systems in the private sector than in the public sector.

1.3 Problem Formulation and Purpose

In 2010, the Government of Sierra Leone launched a Free Health Care Initiative in Sierra Leone for pregnant women, lactating mothers and children under five years to address the high maternal and infant mortality rates in the country and achieve the MDG's. This initiative which is implemented country wide in public sector health care institutions is managed through an Integrated Delivery System by public sector officials who may have professional competences in health related disciplines, but not necessarily managerial competences. After a year of implementation, the initiative appears to have faced some challenges with regards to its management. A report issued by Amnesty International in September 2011 described the government's Free Health Care Initiative as dysfunctional lacking monitoring, planning and accountability which are management and leadership issues.

The WHO leadership and management framework provides a basic outline to determine which dimension of a health system is not contributing adequately towards health delivery and the MDGs as the four dimensions should work together

to achieve a common purpose. A qualitative assessment of the FHC system was done using the LMF (Table 1.1).

Table 1.1:
Comparison of LMF Dimensions to Free Health Care System

LMF Dimension	Free Health Care Initiative
Adequate Number of Managers	• Supervised throughout the 12 districts of Sierra Leone by 13 District Health Management Teams & Local Government Councils comprising of Doctors, Medical Specialists, Pharmacists, midwives, Community Health Officers, Para Medics, District Councillors • Delivered directly to users at hospitals, health centres and health posts in 13 health districts by doctors, midwives, pharmacists and pharmacy technicians and para medics • Management planning is undertaken at the highest management levels of the Ministry of Health and Sanitation , UNICEF, DFID and AfDB
Appropriate Competencies	• Health workers possess clinical competencies • ***No competency framework for health sector*** • ***Not much is known about the workforce skills for managing the programme***
Functional Support Systems	• Professional support for procurement, logistics management, warehousing provided by DFID and UNICEF • 5 year financing of programme guaranteed by DFID, UNICEF and AfDB • Professional road haulage firms contracted to facilitate distribution of supplies • Computerised inventory system for drugs and other supplies provided by UNICEF
Enabling Working Environment	• Initiative enjoys the highest political support from the government. • Special incentives introduced for all level of health workers at the start of the program. • Health facilities upgraded in all 13 health districts throughout the country

Comparing the four dimensions illustrates that there is little information available about the workforce competencies in the absence of a competency framework and there was a need to examine if the health care workforce possessed the requisite managerial competencies for the delivery of services under the implementation of the FHC Initiative in Sierra Leone .

In this context, this study would broadly assess the perception of the health workforce and policy makers in Sierra Leone on the relevance of managerial

competencies to the free health care delivery, the degree of possession of the competencies and determine if there is a correlation between the implementation of the FHC Initiative and the managerial competencies of the health workforce involved in the delivery of the Initiative.

1.4 Research Objectives

The objectives of this research are to:

1. Determine which managerial competencies are considered as relevant to the management of the Free Health Care Initiative by the health work force
2. Identify the managerial competency gaps among the health work force managing the Free Health Care Initiative

The findings from this research will determine if a correlation exists between the possession of managerial competencies and the successful implementation of the FHC Initiative, highlight the importance of competency development among the public sector health workforce and facilitate planning for management capacity building for the public sector health workforce in Sierra Leone.

1.5 Research Hypothesis

This thesis will test the following hypothesis:

"Is there a positive relationship between effective implementation of the Free Health Care Initiative in Sierra Leone and managerial competencies of the health care workforce"

1.6 Thesis Structure

This thesis will be organised around five (5) chapters with each chapter addressing themes relevant to the study. Chapter One is an introductory chapter providing the background to the topic by describing competencies, competency frameworks, managerial competencies and their applications to the healthcare sector. The Chapter also presents a problem discussion on the growing use of health systems for the delivery of health care, the lack of competent management globally and in sub Saharan African countries to manage health systems and the need to develop the managerial competencies of health sector workers. The problem discussion is further narrowed down to the formulation of a problem involving the management of a health delivery system in Sierra Leone, a research purpose and two research objectives. Chapter Two provides an overview of literature relating to competencies,

competency frameworks, managerial competencies and managerial competencies used in the health care sector and a theoretical framework for the research.

Chapter Three outlines the methodology to be used for this research, the research approach and data collection methods that will be utilised. The findings will be presented, analysed and discussed in Chapter Four and Chapter Five will make conclusions from the research findings and make recommendations for future action or research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature for this research on managerial competencies is wide and three types of literature streams will be examined in this research. The first stream will seek to examine the concept of competencies, the similarity of terms, competency definitions, types of competencies, managerial competencies and competency frameworks and the UK and USA approach to competencies. The second stream of literature will examine how managerial competencies are applied in the health sector in terms of key competencies utilised in health care management, health care competency frameworks and competency gaps. The third literature stream will involve the development of a theoretical framework from the literature review carried out in streams one and two to address our research objectives.

2.2 Conceptual Framework

2.2.1 Competencies

Because of the growing interest in the management and effectiveness of organizations since the nineties, management theorists and managers have generally characterised competence by elements of competence which include skills, capabilities, knowledge, learning and relationships (Sanchez 2004). This has often resulted in the ambiguous use of the terms “skills”, “competencies,” “competence” and “capability” and confusion and different conceptualizations of what competencies is all about.

To undertake a study on competencies requires initially a clear understanding of the various terms as they are frequently used in the definition of competencies. In Viitala (2005), “Skills” is, defined as a specific expertise which is applied in an operational work activity and can be taught. Skills are generally linked to particular work roles requirements. “Capabilities” is defined, as the ability to apply both skills and competencies in a particular context that value can be added. (Citing Kakabadse and Korac-Kakabadse, 2000; Hogan and Warrenfeltz, 2003; Jackson et al., 2003). To describe the terms skills and capabilities effectively, Sanchez (2004) introduces a new term, assets on which basis the other terms are described. Assets are “Anything tangible or intangible the firm can use in its processes for creating, producing and

offering its products (goods or services) to a market". On this basis, Capabilities are described as Repeatable patterns of action in the use of assets to create, produce and/or offer products to a market". Sanchez explains that capabilities are important intangible assets that govern the use of tangible assets and they evolve from the coordinated activities of groups of people that bring together their individual skills to use the assets. From Sanchez description of capabilities, the term skills is described as "Special forms of capability, usually embedded in individuals or teams, that are useful in specialized situations or related to the use of a specialized asset.'' From the various understandings of skills and capabilities, we can now proceed to examine the various literature on competencies

There are varying explanations and understandings of the terms competency and competence which are often used interchangeably in management. Both terms can have multiple connotations contingent on the context and perspective in which they are used. Viitala (2005) citing (Garavan and McGuire, 2001) states that they can be classified as work-oriented definitions and multidimensional definitions and citing (Pickett, 1998; Parry, 1996; McLagan, 1998; Mumford, Zaccaro, Johnson, Diana, Gilbert and Threfall, 2000) the term "competency" generally refers to "the sum of experiences and knowledge, skills, traits, aspects of self-image or social role, values and attitudes a manager has acquired during his/her lifetime." The term "competence" is described by Amstrong, cited in Cheng and Dainty (2003, p 526) as the "ability to perform activities within an occupational arena to a particular standard." The term "competence" is frequently used in work based qualification schemes. In competency management literature, several definitions of competency have been highlighted from different schools of thoughts and experiences. Some schools view competencies from the perspective of experiences and skills, others behaviors and quite a few from knowledge perspectives. Penchev and Salopaju (2011) in a review of vast stream of competency literature available, synthesize the different definitions of competencies made by researchers according to key terms used to define competency.

Table 2.1:
Key Terms used to Define Competencies

Definition of Competencies	**Authors:**
Experiences, knowledge, skills, values, attitudes	Pickett, 1998
Attributes, knowledge, abilities, personality traits, motives, self-images	Kanungo & Misra, 1992
Behaviours, attitudes, characteristics, knowledge, skills	Mitchelmore & Rowley, 2010
Skills/abilities, knowledge/experience, and attitudes/traits.	Bartlett & Ghoshal, 19971
Core, personal, and managerial competencies	Abraham et al., 2001
Skills	Brightman, 2004; Hofener, 2000; Katz, 19552
Skills opposed to Competencies	Kanungo & Misra, 1992; McKenna, 2004
Characteristics, knowledge, skills and personality traits	Man et al., 2002
Knowledge, motives, traits, self-images, social roles and skills	Bird, 1995
Traits, personality, attitudes, social role and self-image; skills, knowledge and experience	Man and Lau (2005)4

(Source: Modified from Penchev and Salopaju)

Two definitions for competencies highlighted that are considered as pertinent to this study are those provided by Pickett, 1998 and Kanungo & Misra, 1992 in Penchev and Salopaju (2011). Competencies are defined as “the sum of our experiences, and the knowledge, skills, values and attitudes we have acquired during our lifetime” (Pickett, 1998, p.103), or the "attributes of an individual that are necessary for effective performance in a job or life role", with these attributes including “general or specialized knowledge, physical and intellectual abilities, personality traits, motives, and self-images” (Klemp and McClelland, 1986, p. 32, cited in Kanungo & Misra, 1992, p.1311).

The multiple definitions for the term competencies results in confusion in an understanding of the term and concept in management literature. Penchev and Salopaju (2011) suggest that a possible reason for this multiplicity of definitions could possibly arise from an interest in the competency concept or difficulty in arriving at a precise definition or just both.

From the definitions of competencies in management literature, we move on to examining the types of competencies recognised. There are several different

approaches employed in the identification of competencies. A key approach is the identification of competencies from individual and organisational perspectives. Mitchell and Boak (2009) citing (Hamel and Prahalad, 1994; Murray, 2003) state that from an organisational perspective, "core competencies" can be viewed as those competencies that provide an organisation with strategic competitive advantage while from an individual perspective, the competencies are skills focussed represented by individual skills, knowledge, attitudes, traits and motives, citing (Boyatzis, 1982; Klemp, 2001; Higgs, 2003; Guo and Anderson, 2005). Mitchell and Boak (2009) identify yet a third approach to the identification of competencies based on individual competencies. In this approach, individual competencies are viewed not from a skills perspective but from specific outcomes a competent individual should be able to achieve by defining generic standards of performance for particular activities, citing Boak, 1990; Mansfield and Mitchell, 1996. Using this approach, they propose a definition of competence as "the ability to perform the activities within an occupational area to the levels of performance expected within employment" citing the (Training Commission, 1988).

This outcomes based approach to competency is the foundation for competency frameworks for specific sectors. Mitchell and Boak submit that the focus of competence in this approach is on the achievements of certain outcomes (tangible or intangible) by effective job holders whereas the emphasis of the skills-focused approach is the identification of skills or attributes that facilitate successful performance.

2.2.2 Competency Frameworks

Mitchell and Boak (2009) further report that based on the outcomes perspective, generic outcome-focused competences have been developed for both leadership and management, that can be applied to all sectors (citing MSC, 2009) and that different sector specific competencies have been developed for the manufacturing, engineering, construction, purchasing and supply, marketing and selling, personnel, health and healthcare sectors. They further submit that most of these competencies are recognised in the United Kingdom as National Occupational Standards (NOS) and approved by the Qualifications and Curriculum Authority and that the differences

between the two approaches were not clear as there were overlaps between the details of the two approaches. The two approaches relate strongly to behaviour statements and the outcome-focused competences often also relates to statements of knowledge, understanding and skills needed to achieve specified outcomes.

Mitchell and Boak explain that the rationale for developing competency frameworks was to support the improvements to both individual and organisational performance in performance management systems, citing (Boyatzis, 1982; Goleman et al., 2002; Hay Group, 2003; Conger and Ready, 2004). They further explain that since competency frameworks clearly outline required skills or desired outcomes, they provide direction for recruitment, training, appraisal, promotion and self-development. Mitchell and Boak (2009) argue that the benefits of competency frameworks are dependent on its quality and the effectiveness of its implementation where the quality of a framework is a function of its accuracy, acceptability and accessibility, citing (Boak, 2001). They submit that accurate competency frameworks outline the actual competences required for effective performance, by describing them in specific and clear language sufficient for the purposes it will be used. For a framework to be acceptable (utilised), several user factors are considered. The framework must match the experiences of its users, the methodology used to develop the framework must be accepted as valid and there should be synergy with other task priorities, initiatives, skills and competencies utilised by the users. The accessibility of a framework refers to the degree of ease or use by users to understand and apply the competencies.

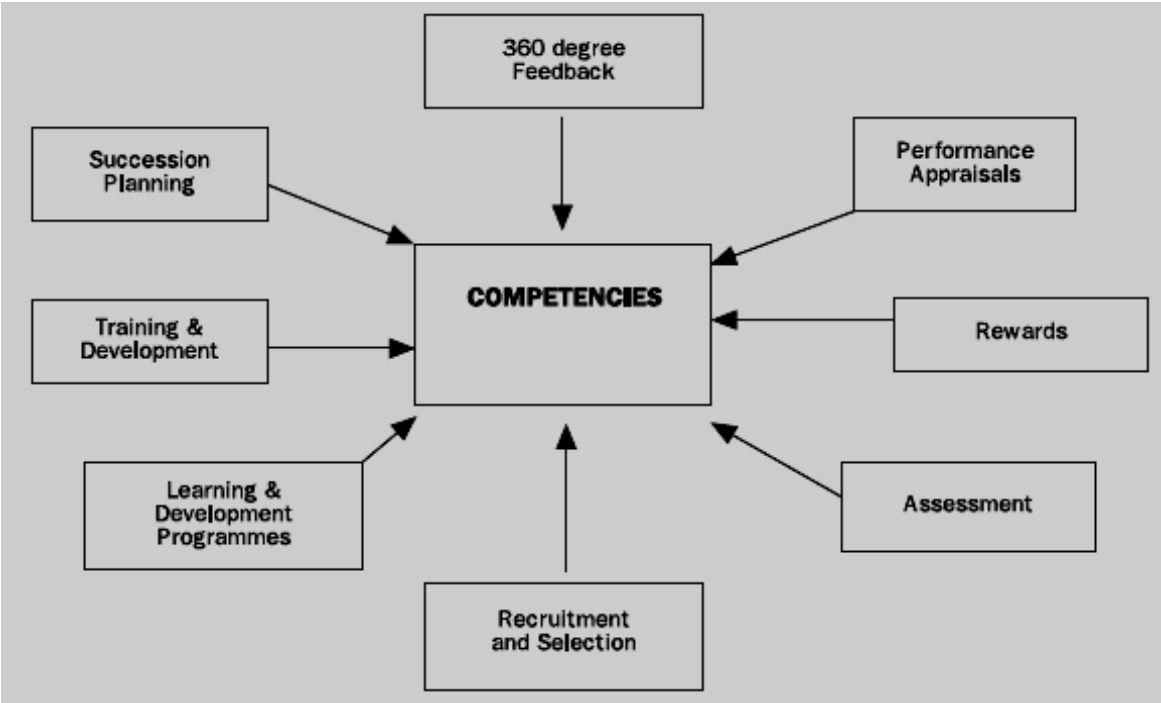
In summary, Mitchell and Boak submit that outcome-focused frameworks are specific and generally contain more competencies than skills-focused frameworks and citing Thompson et al. (1997) explain that competency frameworks can be:

1. simple and generic but inaccurate
2. simple and accurate but not generic;
3. generic and accurate, but complex and impractical for implementation.

Apart from their wide application to performance management systems in organizations, competency frameworks are also applied to human resource management in organizations. Heffernan and Flood (2000) provide a more detailed

explanation of the application of competency frameworks to Human Resource Management (Figure 2.1.) They report that the application of competency frameworks in organisations offers a contextual framework for hiring, measuring performance, providing feedback for developing competencies and rewarding superior performance for top level talent citing (Santo, 1998). They also suggest that the use of competencies in a systematic manner can link all organizational HR processes, from recruitment and induction to appraisal and succession, so that they focus on the same key expectations and objectives and provide mutual reinforcement to each other (citing Matthewman, 1997/98, p. 2).

Figure 2.1: Integration of Competencies into Human Resource Management



Source: Heffernan and Flood

2.3. Managerial Competencies

Earlier in this theory chapter, the skills-focused approach to individual competencies was highlighted as identifying the skills or attributes that facilitated successful performance in organizations and both skills and attributes can be regarded as inputs to performance.

The focus of this research is on managerial competencies and managerial competencies can be regarded as skills or attributes that facilitate successful performance. The relationship between performance management and

competencies has been outlined earlier in this literature review. Abraham et al (2001 p 843) report on a growing trend for organizations to implement performance management systems and identify managerial competencies and from a review of competency explanations, submit that the term "Managerial Competencies" is frequently used to refer to the competencies possessed by successful managers and that there was a strong relationship between managerial competencies and performance management. Pickett (1998, p 112) cited in Abraham et al (2001) explain the relationship between managerial competencies and performance management as follows:

> "Managerial Competencies provide a sound basis for an effective program management program. Using the information obtained during the review of competencies required by the job and those possessed by the person performing that job, an integrated process can be introduced linking competencies with the annual performance review program and the determination of objectives".

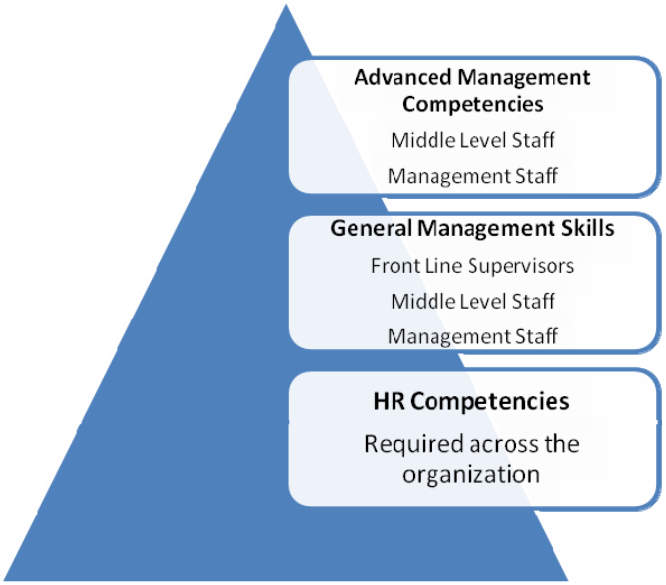
Pillay (2008) views managerial competencies from the traditional management functions of planning, organizing, leading and controlling for which managers required competencies to perform these functions effectively and efficiently. Pillay, citing (Hellriegel et al., 2004), defines Managerial competencies as "sets of knowledge, skills, behaviors, and attitudes that a person needs to be effective in a wide range of managerial jobs and various types of organisations". From both commentaries highlighted above, we propose that managerial competencies be viewed as knowledge, skills, behaviours that facilitate the traditional management processes in organisations and can be used to monitor the effective performance of organisations.

Researchers have highlighted several diverse approaches to classifying or viewing managerial competencies based on a clustering of skills, behaviour and functionality. Filerman (2003) suggests that managerial competencies should be viewed from a perspective of practicality and not complexity as was prone in contemporary managerial literature. He opines that there was little evidence to show that these complex managerial concepts worked or to what extent they worked and that they

could be applied in all societies. Filerman makes a simple classification of managerial competencies at three functional levels as follows (Figure 2.2):

1. HR Competencies
2. General Management Skills
3. Advanced or Senior Management Competencies.

(Figure 2.2):
Filerman Classification of Managerial Competencies



Source: Developed from Filerman 2003

Filerman 's classification which is developed on the health care system is generic in nature across all management systems. He submits that at a foundational level, organizations require a strong HR footing for building management throughout the health (management) system which required skilled HR personnel. At the second level, front-line supervisors required General management skills that were essential resources that facilitated the delivery of results for which they were accountable. At the third level, middle level and management staff required advanced management competencies and in addition should possess general management skills. The underlying factor in Filerman's classification is that technical competencies (clinical and public health training and skills) are different from managerial competencies and cannot substitute for them.

Pillay (2008) suggests that because of the complex challenges faced by today's managers in their management functions, they required the following mix of skills or competencies to manage effectively:

strategic skills, related to setting of key objectives based on an understanding of what is happening inside and outside the organisations

task-related skills that include functional and operational competencies that provide the best approach to achieving organisational objectives, within the available resources

people-related skills which facilitate achieving organisational objectives working with people

self-management skills which equip the workforce with basic general work skills that can be used by individuals within and outside the organization

Viitala (2005) proposes a more complex classification of managerial competencies into six clusters based on different managerial competencies perspectives (Figure 2.3)

Technical competencies
Business competencies
Knowledge management competencies
Leadership competencies
Social competencies
Intrapersonal competencies

Figure 2.3: Hierarchical model of Management competencies

Source: Viitala (2005)

In Viitala's competency classification framework, "Competence is viewed as a holistic concept, consisting of technical, management, people, attitude, value and mental skill components" and that the combination of these components, was the basis of managerial behaviour and performance. Competencies closer to the top of the pyramid were more connected to education and specific work experience and easier to develop and those closer to the bottom were more associated to

managerial personal traits and growth and were more difficult to develop. (citing *Garavan and McGuire, 2001*).

2.3.1 Competency Gaps and Measurement of Competencies

Wickramasinghe and De Zoyza (2009) state that regular assessments of managerial performance could be done by determining if managers had the right competencies to show professionalism in their jobs at both organizational and individual levels. They highlight the importance of identifying key individual competencies required by organizations to realize their strategic objectives on a regular basis otherwise there was a tendency for the wrong competencies to move the organization in the wrong strategic direction. They suggest that the identification of competency gaps was a precise method of recognizing discrepancies in competencies across organizations which provided a framework for the assessment of managerial performance. Wickramasinghe and De Zoyza citing (Agut and Grau, 2002; Boydell and Leary, 1996; Goldstein, 1991) state that a gap arose when the competency possessed by an individual was lower than that required for an expert job performance. They further suggest that once identified, the competency gaps could be closed by developing strategies such as training, job enrichment, job content innovation, job redesign, enhancement of the organizational climate strategies etc, citing (Goldstein,1991; Naquin and Holton, 2003; Tharenou, 1991; Wright and Geroy, 1992).

In the simplest form, the measurement or the assessment of the degree or level of managerial competencies possessed in an organization should give an indication of the performance levels of that organization. Wickramasinghe, and De Zoyza (2009) report disagreement over the accuracy of measurement of competencies regarding the validity of competencies as measurable constructs, citing (Lawler, 1996; Schippmann et al., 2000; Tett et al.,2000) and outline four types of competency measurements utilised in competency management which are :

content validity where the competencies utilised for the study are a representative sample of the area of management; face validity where the competencies selected for measurement are accurate and relevant (but competency lists will always remain in adequate as managers were unable to describe all competencies needed for a particular job); construct validity which focussed on the importance of operationalizing competencies to facilitate

observation and measurement (citing Markus et al., 2005); criterion validity with an emphasis on the importance of accurate measurement of competencies.

Wickramasinghe, and De Zoyza (2009) citing Markus et al (2005) suggest that the the accurate measurement of competencies was a major matter in competency studies and describe three frequently used methodologies for the assessment of competencies:

self-evaluation which focussed on the improvement and/or decline of competencies over a period; third-party evaluation which monitors and evaluates the evolution of individual learning/acquisition of competencies; peer evaluation where the assessment of competencies is based on the perception of peers, citing (Camuffo et Gerli, 2004; Graham and Tarbell, 2006) which could be unreliable and affected by rater bias citing (Fletcher, 2001).

2.3.2. Managerial Competencies and Health Care Management

There is a growing perception by researchers that the traditional management functions of planning, organizing, leading and controlling utilized in the Health Care Sector can no longer be performed as they were but required special skills referred to as managerial competencies to lead and manage organizations effectively. Anderson and Pullich (2002) suggest that because health care organizations were evolving rapidly, the key management functions had become complex processes requiring Health Care Managers and Supervisors to have special skills and knowledge referred to as management competencies to run their organizations effectively. From another perspective, Filerman (2003) advances that the numerous global health challenges had evoked global health responses through multi stakeholder global health initiatives resulting in an evolution of health care management from clinical and medical management to management of integrated health care delivery systems. Filerman reports that integrated health care delivery systems were often complex systems that involved the management of strategies, people, financial resources and processes through health care programmes. The focus of these programmes was often on achieving specific and measurable results within a time frame requiring highly skilled managers for their successful implementation. Filerman suggests that there was a lack of competent management in health systems globally particularly in developing countries which was responsible for poor results

from these international programmes and proposes that in addition to competencies in public health, health care managers also required general management competencies for the successful management of health care programmes. Recently, there has been considerable interest in managerial competencies and their effect on the delivery of health care in several countries. A study on Integrated Delivery Systems by Lega (2007) outlined the growing emergence of Integrated Delivery Systems as a dominant organizational form in health care management and suggested that there was a need to develop the managerial competencies of clinicians and other health workers as they often had to perform managerial roles for which they were not trained. May (2009) examined public health delivery systems in the USA and suggested that there were gaps in knowledge of the attributes of these systems that influenced their performance and outcomes and that more research was required in several areas particularly in the assessment of competencies for professionals in the public health sector.

There has been a steady convergence of opinion on the need for managerial competencies for health care management. Different researchers outline the range and scope of competencies required in health care management. Pillay (2008) submits that modern health care management faced unique challenges where health care managers had to integrate modern business management practices with clinical and health care knowledge particularly in public sector hospital and health care management. Anderson and Pullich (2002) suggest that apart from the traditional managerial skills related to planning, organizing, leading and controlling, managers in organizations also needed strong inter personal and communication skills to manage effectively and propose a list of managerial skills perceived to be critical to the health care management function. (See Table 2.2)

Table 2.2
Critical Managerial Competencies

Planning:	- goal setting - develops work unit goals and priorities in alignment with organizational objectives - decision making – makes decisions proactively, in a timely manner, and considers a variety of alternatives to preclude problems from recurring
Organizing:	- cooperating – achieves departmental and organizational goals by creating and managing a supportive team environment - coordinating – performs liaison functions and integrates work unit activities with other units
Leading:	- communicating – interacts effectively with bosses, peers and employees through effective use of oral and written communication skills - managing conflict – identifies sources of conflict and facilitates conflict resolution - demonstrating professionalism – acts as a positive role model for others
Controlling	- empowering employees – uses appropriate management techniques to promote responsibility and innovation in improving work unit performance

Source: Anderson and Pullich (2002)

Filerman (2003) observing the rapid evolution of health care organizations and complexity of management functions proposes certain skills and competencies for Health Care Managers and Supervisors for effective organizational management. (See Table 2.3)

Table 2.3

Managerial Competencies Groupings Developed by Filerman

Competency Grouping	Competencies
Human resources development competencies	Organizing the HR Department
	Assessing Training Needs
	Budgeting and Advocacy for Resources
	Developing and Using Position Descriptions
	Planning and Implementing Training Programs
	Building Effective Teamwork
	Implementing Labor Law and Personnel Management Regulations
General management competencies	Accounting
	Managing a Budget
	Managing Supplies
	Managing Health Professionals
	Managing support staff
	Developing Staff Competence and Productivity
	Negotiation
	Patient/Client Relations
	Planning for Units and Programs
	Assessing and Improving the Quality of Services
	Oral and Written Communications
	Using Computers and Information Systems
	Implementing Labor Law and Regulations
	Ethical Management Behavior
	Managing Facilities and Equipment
Advanced or senior management competencies	Budget Preparation and Management
	Human Resource Planning and Management
	Leadership in Organizations
	Basic Epidemiolgy
	Organization of Public Health and Medical Care Services
	Principles of Health Economics
	National Health Policy
	Planning Health Services
	Organizing and Implementing Purchasing Systems
	Developing and Managing Contracts
	Assessing and Improving the Quality of Health Services
	Ethical Management Behavior
	Working with the Private Sector and Building Coalitions

Source: Adapted from Filerman (2003)

From the perspective of health care sector managerial competencies situated within the framework of competency frameworks, Lockhart and Backman (2009) undertook an analysis of several frameworks and models used by accreditation organizations, professional associations and educational institutions (Appendix 2). They report that core management competencies like leadership, communications and human resource management and strategic management competencies like transformation,

governance and knowledge of the health care environment were included in almost all models. However only a few models included competencies in financial management or analytical skills and there was little focus on the clinical skills related to health care services. From their analysis, they also reported that there was no clear distinction between competencies, personal skills and attributes, and leadership as most individual attributes were listed as competencies.

Pillay (2008) highlights the importance and benefits managerial competencies in health care competency models (frameworks) which include the determination of competency gaps between current and required skills (citing Brown , 2002) and the development of relevant programmes for hospital managers based on skills gaps to ensure sustainable management practices. Pillay (2008) reviews and comments on some of the widely used health care competency models with managerial competency perspectives. The National Centre for Health Care Leadership (NCHL, 2006) competency model widely used in the USA is reported to recommend 26 managerial competencies along three domains: transformation (strategic), execution (organising and controlling) and people (leadership). Pillay (2008) reports that the NCHL model had replaced a health care competency model developed by the American College of Preventive Medicine with health management competencies and performance indicators related to health care delivery, financial management, organisational management, legal and ethical considerations (citing *Lane and Ross 1998*). In a survey of American medical directors, competencies related specifically to health care, including clinical preventive skills, were rated highly relative to generic management competencies (Halbert et al. 1998). Similar studies in the United Kingdom (UK), also, identified financial, medical and people related skills as the most important for inclusion in management development programmes for hospital managers (Mahmood and Chisnell 1993; Walker and Morgan 1996)

Pillay (2008) argues that these health care competency models were developed and utilized in western countries and that it was important for their contextualisation within the prevailing socio-economic and political context in South Africa and other developing countries. Pillay further points out that compared to health care

managers in western countries, health managers in South Africa were generally medical doctors or commerce graduates as there was a lack of health management or health administration programmes at undergraduate or post-graduate levels in the country's tertiary institutions and outlines 39 managerial competencies perceived important in health care management in South Africa (Appendix 3).

2.4 Theoretical Framework

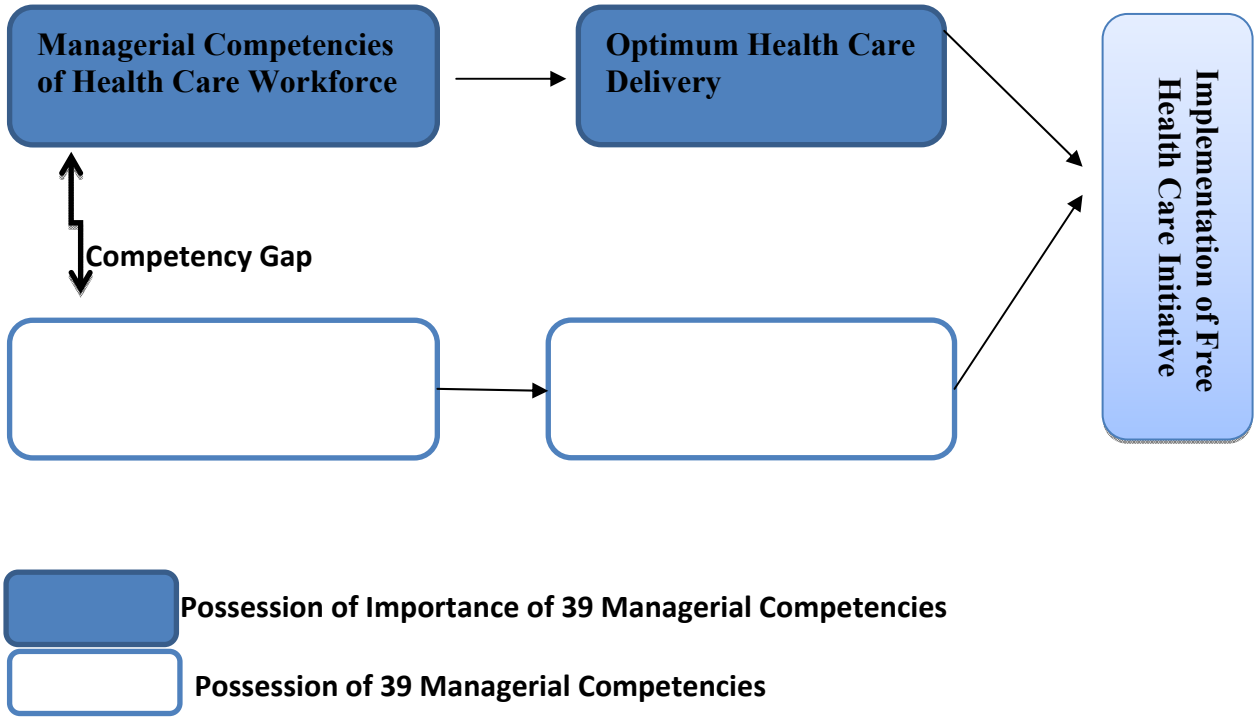
The literature review highlighted the importance and applications of managerial competencies and competency frameworks to the effective management of organizations and health care systems. Two aspects of the literature review have a potential to provide a framework for developing a theoretical model for this study. These which are Filerman's competency classification and the 39 managerial competencies framework utilised by Pillay in the study of the health sector in South Africa.

The merits of Filerman's model are that it was developed from an analysis of the healthcare management system, it has a generic application and supports Filerman's position that managerial competency frameworks should be simple as complex models may not be readily applicable in all societies. The demerits of the model are that managerial competencies are differentiated at the frontline, middle level and senior levels of management and clinical and public health competencies are distinctly different from managerial competencies and cannot replace them. This differentiation could be quite blurred in the context of Sierra Leone where the health care delivery system faces both a critical shortage of skilled health workers and an inequitable distribution of the same (NHSSP).

The merits of using the 39 competencies utilised by Pillay are that the research was carried out in South Africa, a developing country similarly trying to attain the health related MDG's. trthey have been tested in both the public and private health care sectors in South Africa and also include some clinical competencies. The premise of this model is that possession of some the 39 managerial competencies by the health workforce contributes to the successful implementation of the Free Health Care Initiative. This is the desired state of performance. On the other hand, various levels of possession of the 39 managerial competencies contributes to a somewhat

unsuccessful implementation of the Free Health Care Initiative. This is not an optimum state of performance and the overall implementation performance can be improved by improving on the current levels of managerial competencies. The difference between the optimum state and the current managerial competency levels is an indication of the competency gap in the management of the Free Health Care.

Figure 2.4
Theoretical Framework for Research



The theoretical model shows a linear relationship between the possession of the 39 managerial competencies as the only factor influencing health care delivery and successful implementation of the Free Health Care Initiative. This is certainly not the case as there are certainly other variables that influence health care delivery not considered in this study for reasons of complexity.

CHAPTER THREE

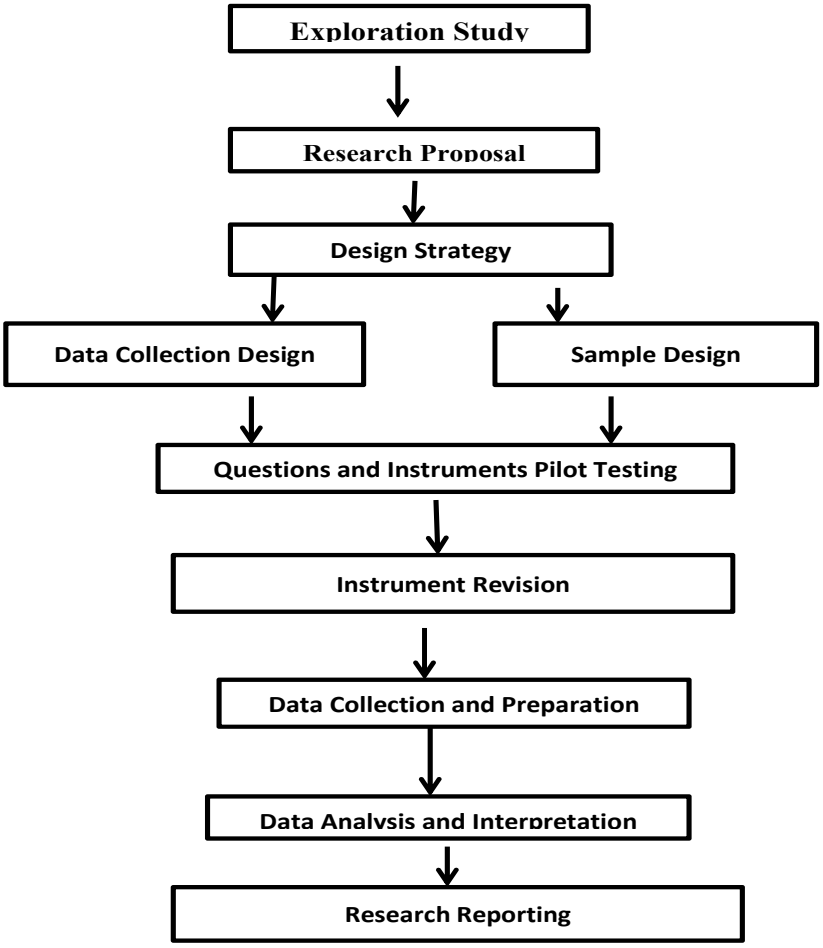
RESEARCH METHODOLOGY AND DESIGN

3.1 Research Approach

Research methodologies are shaped by several factors which include the nature of the problem to be investigated, availability of resources such as time, finance and personnel, would-be respondents and information to be generated.

Our research objectives focus on assessing managerial competencies and identifying competency gaps in the health care sector in Sierra Leone for which there is no evidence of previous research. This makes an exploratory study most relevant for this research over descriptive and casual research methods. Cooper and Schindler (2005) outline a process for exploratory research (Figure 3.1) which has been followed in this study.

Figure 3.1
The Research Process



Source: Adapted from Cooper and Schindler (2005)

The research process is in two phases, an exploratory study through extensive research on existing literature and secondary data to understand the key definitions, concepts and constructs used as well as identifying similar research done on managerial competencies to

bring the research into focus, followed by a formal study described extensively in this chapter.

Both qualitative and quantitative methods are frequently used in management competency research. Murphy (1995) explains that qualitative research brings out the meaning of relationships in terms of influence and actions compared with quantitative research which has a focus on scale of activities. Murphy submits further that, as qualitative research brings to the front possible different scenarios occurring under differing circumstances, its application to management competencies will elucidate circumstances under which different competencies are utilized within an organization. Ghauri and Gronhaug (2005) explain that qualitative methods are useful for exploratory studies particularly at first level research as they help with building explanation and hypothesis. Bryman and Bell (2003) explain that confidence in the findings can be increased by using more than one methodology and emphasise a combination between quantitative and qualitative methodologies as the latter can add relevant information that supports the findings of the first. Case studies are effective in studying situations not previously studied. Pillay (2008), Lockhart and Backman (2009) in their study of managerial competencies used a combination of case study, in-depth interviews and structured questionnaires. For this study a similar combination will adopted.

3.2 Research Design

Respondents

The study population was from two regional hospitals, four district hospitals and several PHU's all operated by the MOHS in the the Western Area Health District of Sierra Leone and the 34 Military Hospital, all of which are implementing the FHC Initiative and their health care workers are performing a certain level of managerial tasks. Because data on the population size was unavailable and time constraints, a non-probability sample of 100 was selected from the population for a survey. Doctors, medical specialists, pharmacists and hospital secretaries were purposively targetted because of their small numbers. MCH Aides were not targetted because they had negligible management responsibilities. Nurses, midwives, CHOs and other health care workers were randomly selected to increase the accuracy of the analysis. There was also not any targetting of front line, middle level and senior management workers as all respondents had to perform some level of management tasks relating to the FHC. If the demographic characteristics were known, a probability sample migt havebeen considered.

Research Instruments

Data was mainly collected in a survey using a three section questionnaire with mainly descriptive questions and a few analytical questions (Appendix 4). Descriptive questions are more suitable for qualitative research where the focus is on bulding explanations, (Ghauri and Gronhaug, 2005). Section A measures demographic factors of the respondents in terms of gender, age, management levels, educational characteristics, roles performed and management functions. Section B measures respondents exposure to management training and Section C measures respondents perception levels on the importance and current possession of 39 managerial competencies for managing the FHC using 5-point Likert scales. The questions on managerial competencies in Section C were adaptations from 39 managerial competencies for healthcare management, derived and tested by Pillay (2008) for construct and content validity, from a review of literature by (Lussier, 2006; Braithwaite, 2004; Lane and Ross, 1998; Halbert et al., 1998; Walker and Morgan, 1996; Mahmood and Chisnell, 1993). The questionnaire was pre- tested on 10 respondents to following which slight modifications were made to ensure content validity. The main modification was use of the term ”management skills” in place of ”managerial competency”to ease the respondents understanding of the terms was used.

To complement the data from the questionnaires, in depth, unstructured interviews were held with the key officials from a spectrum of health care providers from the private and public sectors, health care trainers and health industry professional associations:

1. Deputy Director, Human Resources Management, MOHS
2. Director of Management Services, MOHS
3. Director of Training, Blue Shield Hospital
4. Director of Nursing, 34 Military Hospital
5. Council Member, Sierra Leone Nurses Association
6. Council Member, SLMDA
7. Director of Research, Pharmaceutical Society of Sierra Leone
8. Senior Tutor, Faculty of Nursing, COMAHS
9. Director, Health for All Coalition
10. Short Course Coordinator, IPAM
11. Training Director, Blue Shield Hospital
12. Manager, UMC Hospital , Kissy

The following interview schedule served as a guide for the interviews after the research objectives and 39 managerial competencies were explained to the respondents.

1. Are the 39 managerial competencies relevant to run the free health care
2. Do the health workers possess the managerial competencies
3. Are there management training programmes for health workers
4. Are the problem(s) of the free health care related to lack of managerial competencies

3.3 Data Analysis

Data from the questionnaires were captured using an SPSS package for Windows Vista, analysed and presented in tabular form. Descriptive statistics was used to analyse the soci-demographic data, competency scores and derive the competency gaps. The mean rankings of the 95 respondents for levels of importance and possession were derived for each competency and the difference in values gives an indication of the gap for that competency. An analysis to determine ratings on the importance of the 39 managerial competency variables clustered into six groups based on factor analysis and conceptual appropriateness as done by Pillay (2008) was done.

Table 3.1
Pillay's Managerial Competency Groups

Managerial Competency Groups	**Managerial Competency Variables**
People related skills	4,5,6,7,8,10,18
Health delivery	25,26,27,28,29,30,31,33
Self management	12,13,35,36,37,38,39
Task related skills	1,2,3,9,11,14,15,16,32
Strategic management	19,20,21,22,23,24
Need for future health care management programme	17,34

Source: Adapted from Pillay 2008

Chronbach alpha's coefficients were used to analyse the reliability of the groupings using coefficients greater than 0.7.

The information from the structured interviews was analysed by looking for commonalities and differences.

CHAPTER FOUR

PRESENTATION OF FINDINGS, ANALYSIS AND DISCUSSIONS

4.1 Introduction

Only 95 questionnaires could be administered out of a target sample size of 100 because of time constraints giving a response rate of 95.00 % which was quite good and could be attributed to the fact that a review of FHC workers pay conditions had just been announced by the MOHS.

4.2 Findings from the Questionnaires

Descriptive statistics for the socio-demographic characteristics are presented in Table 4.1.

Table 4.1
Socio Demographic Findings

Socio-Demographic Indicator	No	%
Gender		
Male	50	52.63
Female	45	47.37
Primary Functions		
Senior Management	36	37.89
Middle Management	28	29.47
Frontline staff	31	32.63
Age		
<35	38	40.00
35-50	42	44.21
>50	15	15.79
Years in Current Position		
<2	12	12.63
2-5	30	31.58
6-10	11	11.58
>10	42	44.21
LEVEL OF EDUCATION ATTAINED		
Basic professional	51	53.68
Advanced Professional	21	22.11
Bachelors degree	17	17.89
Postgraduate qualification	6	6.32
ROLES PERFORMED		
Senior Management	14	14.74
Middle Management	8	8.42
Supervisory role	22	23.16
Professional	37	38.95
Paraprofessional	11	11.58
Administrator	3	3.16
PRIMARY FUNCTION		
Medical Doctor	17	17.89
Medical Technician/Assistant	11	11.58
Non Physician Provider	8	8.42
Administrator	11	11.58
Nurse	42	44.21
Other	6	6.32

Source: Survey Findings

52.53% and 47.37% were male and female respectively. This suggests that there is gender balance among the workforce. If a larger sample was used, a standard deviation measure might have revealed if there was a deviation from this observation. In terms of respondents age, 40% of the sample size are below 35 years, 44.21% are between 35 and 50 years, while 15.79% are over 50 years. In view of the fact that the retirement age is 60 years, 40% and 15% of the worforce have useful working lives of up to 25 and 10 years. This is a good situation for human resource planning as the capacity of these category of workers can be strengthened in this period. In general over 87% of the respondents have been in their current positions for over one year. This is significant as the implementation of the FHC is in it second year and suggests that there is non frequent rotation of workers and the experience of the workers is u

93.73% of the respondents have some form of medical or health related background. This is because the recruitment criteria by the MOHS sets the basic competency requirements for clinical workers at SECHN levels and that for health workers at CHO levels and most of the respondents satisfied this background. 6.32% had a management or some other background and these were non clinicians providing support services to the hospital management.

While there was no purposive sampling of senior, middle management and supervisory staff, the questionnaire design included two apparently confusing questions on Management Functions and Type of Roles Performed relating to these level of staff. This is a result of a review of job classifications undertaken independently by both the MOHS and the central government's Human Resource Management Office without harmonisation of job descriptions and salary scales resulting in a dysfunctional management system. These findings has no statistical significance other than to highlight the fact that these three levels of workers fell into the sample.

The statistics relating to findings on management training are presented in Table 4.2. 40% of respondents claim to have some formal training in health management in the

form of taught courses at certificate, diploma or degree levels while 80% reported informal training in health management through workshops, seminars and non certified programmes.

Table 4.2
Findings on Management Training

Status of Health Management Training	No	%
Formal Training in Health Management		
yes	38	40.00%
no	57	60.00%
Total	95	100.00%
Informal Training in Health Management		
yes	76	80.00%
no	19	20.00%
Total	95	100.00%
Intention to attend future health care management training		
yes	84	88.42%
no	11	11.58%
Total	95	100.00%

Source: Survey Findings

The results for informal training is largely due to the numerous capacity building workshops and seminars normally conducted by the MOHS for their staff when introducing a new health programmes like the Free Health Care, “Kick Polio” and Tuberculosis (TB) and Malaria eradication. 88% of respondents expressed their desire to attend future healthcare management training. This level of response suggests bias in the response to the previous questions on attendance at formal training in health care management and a desire to develop management competencies formally or informally as the new criteria for promotion in the civil service have a strong focus on continuing professional development and th possession of skills.

The findings of the competency perception levels and competency gaps is presented in Table 4.3.

Table 4.3

Competency Levels of Health Care Workforce

	Competency	Importance	Possession	Gap
1	Computing skills	4.81	2.75	2.06
2	Management of information systems	4.75	2.73	2.02
3	Medical informatics	4.74	2.69	2.04
4	Motivating staff	4.88	2.95	1.94
5	Managing people and teams	4.76	3.07	1.68
6	Communication skills	4.87	3.26	1.61
7	Managing delivery	4.75	3.40	1.35
8	Managing conflict	4.63	2.99	1.64
9	Marketing of health care organisation	4.45	3.03	1.42
10	Management of change	4.55	2.94	1.61
11	Structuring of health services organisation	4.52	2.92	1.60
12	Analysis of legal issues	4.25	2.39	1.86
13	Bioethics	4.44	3.09	1.35
14	Financial performance evaluation	4.41	2.52	1.89
15	Budgeting and resource allocation	4.54	2.61	1.93
16	Health economics	4.51	2.42	2.08
17	Human resource management	4.60	2.76	1.84
18	Labour relations	4.40	2.60	1.80
19	Strategic thinking	4.61	2.97	1.64
20	Planning for future needs	4.79	3.29	1.49
21	Analysis of internal and external environment of organisation	4.59	2.95	1.64
22	Analysis of the wider health system	4.55	2.82	1.73
23	Analysis of government programmes	4.71	2.75	1.96
24	Evaluation of health service technology	4.52	2.68	1.83
25	Clinical competence and expertise	4.53	3.71	0.82
26	Ability to conduct clinical audit	4.40	3.57	0.83
27	Health promotion skills	4.42	3.66	0.76
28	Epidemiologic analysis	4.16	3.49	0.66
29	Quality control and improvement in health service organisation	4.48	3.43	1.05
30	Managed health care principles	4.47	3.45	1.02
31	Understanding the district health system	4.39	3.81	0.58
32	Measuring performance of health care organisations	4.40	3.54	0.86
33	Evidence-based medicine	4.40	3.61	0.79
34	Learning from experience	4.66	3.92	0.75
35	Time management	4.68	3.88	0.80
36	Balancing work and life issues	4.52	3.62	0.89
37	Integrity and ethical conduct	4.68	3.86	0.82
38	Self-awareness	4.63	3.88	0.75
39	Self-development	4.61	3.83	0.78

Source: Survey Findings

The ten greatest gaps in managerial competencies are:

Health economics	2.08
Computing skills	2.06
Medical informatics	2.04
Management of information systems	2.02
Analysis of government programmes	1.96
Motivating staff	1.94
Budgeting and resource allocation	1.93
Financial performance evaluation	1.89
Analysis of legal issues	1.86
Human resource management	1.84

These ten skills can be considered as skills critical to the management of Integrated Health Delivery Systems as outlined by Lega (2007) but there relevance to Health Care Management are best viewed from Filerman's managerial competencies grouping. These skills are general management skills and advanced management skills and suggests that the management teams of the FHC Initiative may not be quite effective. Computing skills, Medical Informatics and Management of Information Systems carry the second, third and fourth highest gaps. These are fundamental skills considered not only important in health care management but for all modern management systems. There is need to improve on these skills at all levels of the workforce. Another significant competency gap is Human Resource management. According to Filerman's grouping, this is a competence that should be possessed by all levels of health workers. Filerman's classification is broader and does contain elements that have been considered as part of the 39 managerial competencies examined. Sub competencies like Organizing the HR Department, Assessing Training Needs, Developing and Using Position Descriptions, Planning and Implementing Training Programs, Building Effective Teamwork, Implementing Labor Law and Personnel Management Regulations would be most useful for workers of the FHC Initiative.

The skills that show the lowest competency gaps are:

Understanding the district health system	0.58
Epidemiologic analysis	0.66
Learning from experience	0.75
Self-awareness	0.75
Health promotion skills	0.76
Self-development	0.78
Evidence-based medicine	0.79
Time management	0.80

Clinical competence and expertise	0.82
Integrity and ethical conduct	0.82

Unsurprisingly most of the health workforce appear to have competencies which relate to an understanding of the district health system which has the lowest competency gap. With the exception of Self Awareness, Time Management and Self Development, most of these skills appear to be medically related. While there is need for their improvement, much emphasis for improvement should not be laid on them.

The following competencies which do not fall in the category of the 10 highest skills gaps have significant gaps that must be reduced. They are identified more with senior management teams and relate directly to strategic management, HR management and communication skills:

Analysis of the wider health system	1.73
Managing people and teams	1.68
Analysis of internal and external environment of organisation	1.64
Strategic thinking	1.64
Managing conflict	1.64
Management of change	1.61
Communication skills	1.61
Structuring of health services organisation	1.60
20 Planning for future needs	1.49
Managing delivery	1.35

The FHC Initiative is delivered through an Integrated Health Delivery System country wide. It is a radical departure from previous public sector healthcare management and delivery systems where there was not much accountability and collaboration among different sectors of the health workforce. It brings together a wider section of the health workforce into teams and groups which require proficiency in skills for managing people and teams, managing conflict, management of change and communication as they do impact tremendously on the delivery of programs and general organisational effectiveness.

Respondent's ratings of the relevance of managerial competencies to the FHC implementation, success of the FHC Initiative are presented in Tables 4.4.

Table 4.4
Respondents Ratings of FHC Initiative

Respondents Ratings of the FHC Initiative	No	%
Relevant Managerial Competencies for FHC Initiative		
yes	51	53.68
no	44	46.32
Rating of the FHC implementation		
Very Successful	18	18.95
Successful	18	18.95
Somehow Successful	48	50.53
Less Successful	11	11.58
Problem(S) of The FHC Related To Lack of Managerial Competencies		
yes	72	75.79
no	23	24.21

Source: Survey Findings

53% of respondents claim to possess the necessary management skills to manage the FHC, a figure slightly below the number of respondents who claimed to possess formal healthcare management skill. Almost two-third of the respondents think the free health is somehow or less successful, which is consistent with unofficial reports on the success of the FHC. When asked whether the problems associated with the management of the FHC lies with the lack of relevant management skills, 75.79% agree but the authors exercise caution that this could be a biased response to trigger training response from the health officials. Most respondents felt that there were inadequate personnel to handle the demand of the FHC given the fact that most medical patients had moved away from private sector to public sector healthcare because it was free.. This could not be verified as the authors did not interview the private sector to determine the effect of the free healthcare on their operations. Table 4.5 presents the respondents analysis of the importance of the competency variables and groupings outlined in Table 3.1.

Table 4.5

Analysis of Importance of Managerial Competency Sub Groups

Management competency variables	**Number of items**	**Cronbach's alpha**	**Mean total score**
Health delivery (25,26,27,28,29,30,31,33)	8	.93	4.41
Task related skills (1,2,3,9,11,14,15,16,32)	9	.87	4.57
Self management (12,13,35,36,37,38,39)	7	.8	4.55
Strategic management (19,20,21,22,23,24)	6	.792	4.63
People related skills (4,5,6,7,8,10,18)	7	.72	4.7
Need for future health care management programme(17,34)	2	.551	4.63

Source: Survey Findings

All groups had a Cronbach alpha higher than 0.70 except the group relating to the " Need for future health care management programme"and was not considered for further analysis. The sub groups related to "people related skills", and "strategic management" were rated highest followed by "task related skills" , "self management" and "health delivery" skills respectively.

The survey results indicate that health care managers generally feel that people related skills and strategic management skills are the most valuable for the efficient and effective management of the healthcare system, followed by task related skills, self management skills and health delivery skills. These findings contradict those of similar studies done by (Lane and Ross, 1998; Halbert et al., 1998) in the USA, (Walker and Morgan, 1996; Mahmood and Chisnell, 1993) in the UK , cited by Pillay (2008) which prioritise hard skills and medical knowledge. Similarly, Pillay outlines people management skills as the most important managerial competencies but our findings show different rankings from Pillay's for all other managerial competencies except the healthcare related competencies. The research completely agrees with Pillay's suggestion that health care management competencies are context specific and it was inappropriate to adopt a generic approach to training which had implications for the design and delivery of education and training programs in different countries.

Pillay (2008) states that people management skills include the ability to be a team player, to work with people from different backgrounds, resolve conflicts, delegate tasks and share information. The high value placed on "people management skills" reinforces the fact that health care is a human system and supports the findings of

Couper and Hugo (2005) that teams and teamwork are critical success factors in the management of hospitals.

The human resource of any organization are a critical resource and the efficient management of this resource base can either make or break the organization and this concept applies similarly to the FHC. While most of the managers possess the required clinical skills, implementation of the FHC Initiative requires special management skills especially people related skills. The FHC involves the free distribution of drugs and supplies to end users and which present a special challenge for the FHC management team as healthcare workers have been used to charging ”unofficial” fees for drugs, supplies and services. To ensure the success of the FHC, health care workers should be adequately trained in people related skills to handle cultural, educational and religious diversities of both patients and co-workers as well as well as skills in both change and transformational management.

In contrast to Pillay’s findings, the survey indicates that in Sierra Leone’s healthcare management, a strong emphasis is placed on strategic management planning skills which is significant considering that as there is a move towards decentralized health systems, key competencies for effectiveness and sustainability include visioning, forward planning and program design, implementation and monitoring are required. (Sanders et al, 2001). Strong strategic planning skills are required in organizations to inform, motivate, create a buy in from workers and develop benchmarking and performance monitoring targets. This concept is quite relevant in the case of the FHC Initiative.

”Task related skills”, or core management functions on which management development programs usually focus, were ranked after ”strategic management skills” unlike Pillay’s rankings. This could be attributed to the fact that the FHC Initiative requires proper accountability and there is increasing use of Information Technology and Performance Tracking Tables for monitoring and analysis. Of the FHC and healthcare managers must have competencies relating to these tasks.

Pillay (2008) citing (Grewer, 2007; Gilmartin and D’Aunno, 2004) suggests that there is an intrinsic link between personal and career effectiveness or perhaps a failure to validate modern approaches to management and leadership development which

focus not only on enhancing cognitive ability but on emotional intelligence and spiritual intelligence as well. The relatively low ranking placed on "self management skills" appears to contradict Pillay's suggestion and could be due to multiple factors which include an overestimation of self management skills, weak understanding of the concept of self management and the lack of both public sector and personal resources to develop self management skills. However, Pillay (2008) citing (Gilmartin and D'Aunno, 2004) submits that individuals can be developed by the transfer of knowledge and skills through coaching and mentoring.

The finding that health delivery skills were perceived as least important agrees completely with Pillay's (2008) findings from studies done in South Africa. Pillay considers this as significant and suggests that traditionally, health care management was done by clinicians who had training only in clinical and not management issues , but citing (Schaay et al., 1998) suggests that a clinical or health related background were not essential for the effective management of health service organizations which supported Pillay's earlier findings. Pillay further reports a growing perception that health care management training was most suitable to be included as part of management programmes than options in medical curricula. It appears that health care workers in Sierra Leone have similar perceptions.

4.3 Findings from the In-Depth Interviews

The responses from the in – depth interviews are summarised in Table 4.6

Table 4.6
Summary of Findings from In –depth Interviews

Guiding Question	***Summary of Responses***
Are the 39 managerial competencies relevant to run the free health care	There were a variety of responses. There was a general feeling that health workers at different levels of responsibilities required different levels of managerial competencies to handle health care management efficiently. Nurses and pharmacists were of the opinion that not all 39 competencies were relevant to the FHC. The doctors felt that the 39 competencies were more relevant to doctors performing management roles and some of the competencies outlined were actually clinical competencies for doctors.. Two respondents felt that only management competencies relating to communications, leadership and budgeting were important.
Do the health workers possess the managerial competencies	The respondents felt that health workers generally did not possess the managerial competencies. The general possession of competencies was weakest at the level of nurses, midwives, SECHN, Environmental Health Officers and strongest with the medical doctors. A few respondents had undertaken short management programmes, while some had undertaken MBA, MPH degree or a Diploma in Public Health. Competencies appeared to be acquired either by experience on the job or through a formal learning process.
Are there management training programmes for health workers	Most of the interviewees' were of the view that management topics were not in included in the curricula of doctors, nurses, pharmacists and other health workers that were trained in-country and there was need for a revision of the curricula to include basic management concepts. One interviewee from a private sector nursing school reported that basic management topics were introduced to trainees but could not state at which level this was done. Interviewees felt that management programs at local institutions did not target the needs of the health workforce and that management programs should be specially designed for the health workforce and at the levels of frontline staff, supervisory staff and management staff. A training provider interviewee explained that their institution had previously organized management programs for the health care sector but were not popular.

Guiding Question	*Summary of Responses*
	Some of the interviewees (doctors) explained that a key issue affecting management capacity for the health care sector was the absence of any standardized competency framework in the country relating to management. Interviewees from the professional associations explained that this issue had been recognized and was being addressed by sub regional professional associations. A Public Sector Official explained that the NHSP had recognized the capacity gaps among the health workforce which included both clinical and management capacity and this was been addressed by short term capacity building programs in the sub-region with WHO assistance. Some interviewees suggested that health workers preferred the MPH program which contained management modules and an increasing number of health care workers were pursuing MBA programs locally and both types of programs carried high costs.
Are the problem(s) of the free health care related to lack of managerial competencies	Interviewees response to this question was mixed. Some of the interviewees felt that there were other issues affecting the FHC Initiative chief of which were underfunding, lack of resources and low clinical competencies. Other interviewees were of the opinion that lack of management skills at all levels of the health workforce was the key factor responsible for the unsatisfactory implementation of the FHC Initiative One interviewee explained that before the FHC, the health workers were in control of admission fees, user charges, charges for medications. This had changed under the FHC and health workers were reluctant to cooperate for a successful implementation. Good managerial competencies were required among the management staff to address these issues.

The findings from the in depth interviews provide a new perspective to the research objectives as the respondents were mostly experienced senior level personnel dealing with policy and professional issues.

The responses indicate that that the level of managerial competencies was generally low across the health workforce and lowest at the level of nurses, midwives, CHO's and highest at the level of doctors and that not all 39 managerial competencies may be relevant to the FHC Implementation. The questionnaire was not designed to highlight the competency levels across the the different management levels in the FHC which might have been a flaw in the design process. The findings also highlight

the absence of a standard competency framework in the national health sector covering both clinical and managerial competencies. This is most unhelpful to the health sector as a competency framework with managerial competencies will be a motivating factor for the health care workers to develop their managerial skills. It is also useful to learn that the government had recognised clinical and management capacity gaps within the national health workforce and was urgently addressing these gaps through funding of capacity buiilding programmes in Ghana.

There appeared to be a unanimous response that managerial competencies in the health workforce were low because the curricula for training nurses, doctors and other health workers management concepts were covered at basic levels and not in depth. There is need for a redesign of the training curricula to cover more management concepts at advanced levels. The introduction of a competency framework for healthcare workers will facilitate the design of management development programs for all levels of the health workforce by local training providers.

The interviewees responses to relating the problems with the implementation of the FHC to possession of managerial competencies appears to be mixed with some of the opinion that the FHC implementation were more than managerial competency problems. Motivation factors influenced staff committment to the implementation process as staff had previously enjoyed significant monetary benefits for their services and this had been considerably reduced.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The broad research objectives of this study were to determine if there was a correlation between implementation of the FHC Initiative and the managerial competencies of the health workforce involved in its delivery and the specific research objectives were to:

1. Determine which managerial competencies are considered as relevant to the management of the Free Health Care Initiative by the health work force
2. Identify the managerial competency gaps among the health work force managing the Free Health Care Initiative

From our findings and analysis, the following conclusions were reached which provide valuable information for the policymakers and human resource planners at the MOHS,; and for those responsible for curricula development and training of health care workers in Sierra Leone.

1. The competencies found most relevant to the management of the FHC Initiative in terms of Pillay's functional grouping were:
   People Related Skills
   Strategic Management Skills
   Task Related Skills
   Self-Management Skills
   Health Delivery Skills
2. From the perspective of individual competency requirements, the most important competencies were :
   Motivating Staff, Communication Skills, Computing Skills, Planning for Future Needs, Managing People and Teams
3. The greatest individual competency gaps of the workforce managing the FHC Initiative were in the areas of:
   Health economics, Computing skills, Medical informatics, Management of information systems, Analysis of government programmes Motivating staff, Budgeting and resource allocation, financial performance evaluation, Analysis of legal issues and Human resource management.
4. The greatest individual competency gaps when considered from Filerman's managerial competencies grouping are general management and advanced management skills, which suggests a weakness of the FHC management in the Western Area.
5. There was a general conception that the performance of the FHC could not be primarily ascribed to the lack of health management skills.

6. A qualitative study of this nature could not reliably determine if there was a correlation between the successful implementation of the FHC and the managerial competencies of the healthcare workers as the sample size used was small.

5.2 Recommendations

The research findings and conclusions provide valuable information for all healthcare stakeholders and as there is considerable scope for further research on the implementation of the FHC and management development needs of the health sector and the authors make the following recommendations:

1. Policy makers and Health Sector Associations should consider the adoption of a managerial competency framework for all levels of healthcare workers.
2. The management skills of health workers at all levels should be enhanced through management development and skills building programs designed for health sector requirements.
3. Undertake quantitative research to identify competency gaps across all levels of health care workers in the 13 Health Districts of Sierra Leone and also the different factors responsible for a successful implementation of the FHC Initiative.

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Appendix 1

The four conditions which facilitate good leadership and management

	Conditions
1	**Ensuring adequate numbers of managers** • How manyhealth service managers are employed? Do we know this? • How many of these have "manager" in their job title? How many combine the role with clinical work? • How are the managers distributed throughout the country? At what levels of the health service? • What efforts to increase and maintain the pool of available managers have been employed?
2	**Ensuring managers have appropriate competences** • Is there a practical competency framework for the knowledge, skills, attitudes and behaviour required for various managerial posts? • How are competencies enhanced? Through off-site or on-the-job training, coaching or action learning? • Is there a national system for competency development? • What qualifications and experience do managers have? • What are the principal limitations of current managers in terms of their own competencies? • Which managerial competencies have been targeted for development? • Have approaches been piloted and later scaled up? What is known about their costs and effectiveness? Are the activities and the achievements sustainable?
3	**Creating better critical management support systems** • How well do critical support systems function? • What are these critical systems? (The list could include budget and financial management; personnel management, including performance management; procurement and distribution for drugs and other commodities; information management and knowledge sharing.) • How successful (or not) are efforts to improve one or more of these support systems? Have any improvements been sustained? • How important were changes in these managerial support systems in terms of improving the performance of managers themselves? • Who are the management professionals running specific support systems and how qualified are they (e.g. accountants, logisticians, IT specialists)?
4	**Creating an enabling working environment** • Do organizational arrangements within the health system encourage managers to perform well? (These include degree of autonomy, clear definition and communication of roles and responsibilities, fit between roles and structures, existence of national standards, rules and procedures, availability of help lines, regular meetings, etc.) • Do incentives and supervision encourage managers to perform well? • How do the various disciplines in the health sector work together in the context of leadership and management? • Have there been recent changes to organizational arrangements, incentives or supervision? (e.g. job descriptions, written guidelines, benchmarks, changes in remuneration packages, etc.) • How important were these changes in improving managerial performance?

Source:(Waddington 2007)

Appendix 2
Healthcare Competency Models

Organization and Description	Key Elements/Competencies
Canadian College of Health Service Executives CCHSE presents a comprehensive set of professional competencies for the CHE Program.	Competency areas include leadership, communication, life-long learning, consumer and community responsiveness, public relations, political awareness, conceptual skills, results- oriented management, resources management, compliance with standards, ethics and laws.
American College of Healthcare Executives ACHE Healthcare Executive Competencies Assessment Tool 2008.	Five key domains: communication and relationship management, leadership, professionalism, knowledge of the health care environment, business skills and knowledge.
Commission on Accreditation of Healthcare Management Education CAHME's Criteria for Accreditation lists 19 health care management content areas that should be addressed in accredited programs.	Content areas include population health, policy, organization, operations, human resources, information systems, legal principles, governance, leadership, communication, statistics, economic and financial analysis, ethics, strategy, quality and professional skills.
National Center for Healthcare Leadership NCHL 's health leadership competency model was developed to improve health status by establishing core competencies for health leaders, strengthening practice, continuous learning and increasing diversity.	Transformation: Achievement, analytical thinking, financial skills, strategic orientation and others. Execution: Accountability, change leadership, collaboration, communication, organization and others. People: human resources management, interpersonal understanding, professionalism, leadership and others.
Healthcare Leadership Alliance HLA is a consortium of six professional membership organizations. Competencies for health care managers were developed from 300 competency statements.	Communication and relationship management, leadership, professionalism, knowledge of the health care environment, business skills and knowledge.
Skills for Health Council (U.K.) In the U.K., 25 Sector Skills Councils aim to close skills gaps, improve productivity and improve learning supply	Sample of skills categories and number of competencies listed. Management and Leadership 47 Business and Administration 74 General Health Care 69 Health Informatics 21
First Nations Health Managers Advisory Committee The FNHM's competency framework for First Nations health managers in Canada. Six domain areas serve as the basis for specific competencies.	Six domains: Communication, client focus, accountability, community focus, fiscal management, human resource management.
Public Health Agency of Canada	Public health sciences, assessment and analysis, policy and

PHAC's Core Competencies for Public Health in Canada define core competencies as "the essential knowledge, skills and attitudes necessary for the practice of public health." Technical and managerial skills are included	program implementation and evaluation, partnerships, collaboration and advocacy, diversity and inclusiveness, communication, leadership.
Association of Schools of Public Health ASPH represents the 38 accredited schools of public health in North America. Core competencies cover 5 core and 7 interdisciplinary domains. Competencies for masters degrees in public health are used as a guide for accredited member institutions.	Core discipline-specific domains: biostatistics, environmental health sciences, epidemiology, health policy, and social and behavioural sciences. Interdisciplinary, cross-cutting domains: communication and informatics, diversity and culture, leadership, professionalism, program planning, public health biology, systems thinking.
Canadian Healthcare Association CHA Learning provides distance learning programs for 500-600 students each year. The Health Services Management program focuses on health administration skills.	HSM I (Year 1): Continuum of health services HSM II (Year 2): CCHSE Management Competencies University component: (Minimum 1 year)

Source: Adapted from Lockhart and Backman (2009)

Appendix 3

List of Management Competencies Important for Hospital Management

1.	Computing skills
2.	Management of information systems
3.	Medical informatics
4.	Motivating staff
5.	Managing people and teams
6.	Communication skills
7.	Managing delivery
8.	Managing conflict
9.	Marketing of health care organisation
10.	Management of change
11.	Structuring of health services organisation
12.	Analysis of legal issues
13.	Bioethics
14.	Financial performance evaluation
15.	Budgeting and resource allocation
16.	Health economics
17.	Human resource management
18.	Labour relations
19.	Strategic thinking
20.	Planning for future needs
21.	Analysis of internal and external environment of organisation
22.	Analysis of the wider health system
23.	Analysis of government programmes
24.	Evaluation of health service technology
25.	Clinical competence and expertise
26.	Ability to conduct clinical audit
27.	Health promotion skills
28.	Epidemiological analysis
29.	Quality control and improvement in health service organisation
30.	Managed health care principles
31.	Understanding the district health system
32.	Measuring performance of health care organisations
33.	Evidence-based medicine
34.	Learning from experience
35.	Time management
36.	Work and life issues
37.	Integrity and ethical conduct
38.	Self-awareness
39.	Self-development

Source: Adapted Pillay (2008)

Appendix 4

Competency Questionnaire On Free Healthcare Service Delivery

Section A: Socio Demographic Information

NO	QUESTION	FILTERS	COMMENTS
SA1	Sex	1=Male 2=Female	
SA2	What is your age ?	Enter data……..	
SA3	What is your highest level of Education attained?	1= 2=JSS; 3=SSS; 4=Basic Professional, Advanced Professional 5=Bachelor's degree; 6=Postgraduate qualification	
SA4	How long have you worked in the healthcare unit?	Enter data……	
SA5	What is your current position/designation?		
SA6	How long have you been in your current position	Enter data……..	
SA7	What type of roles do you perform?	1=Senior Management; 2=Middle Management; 3=Supervisory role; 4=Professional; 5=Paraprofessional; 5=Administrator; 5=Technical;	
SA8	What classification describes your primary function?	1=Medical Doctor; 2=Medical Technician/Assistant; 3=Non Physician provider; 4=Administrator; 5=Nurse; 6=Other please specify…….	
SECTION B: PROFESSIONAL TRAINING/EXPERIENCE			
SB1	Do you have any formal training in healthcare management?	1=Yes 0= No	
SB2	Do you have any informal training in healthcare management?	1=Yes 0= No	
SB3	Do you intend to do any future healthcare management training program ?	1=Yes 0=No	

SECTION C: COMPETENCY (SKILLS) LEVEL OF Health Care Personnel

Now I will want to ask you about how important certain skills are to your area of work as a hospital staff and if you have them.

For the importance of certain skills, please indicate the importance of each skill to you on a scale of 1 – 5; 5=Very important; 4=Important; 3=Somehow important; 2=Less important; 1=Not important

For the possession of the skills, please indicate your level of possession of each skill on a scale of 1 – 5; 5=Very High; 4=High; 3=Average; 2=Low; 1=None

	Skills	**Importance**	**Possession**	**Comments**
SC1	Computing skills	1 2 3 4 5	1 2 3 4 5	
SC2	Management of information systems	1 2 3 4 5	1 2 3 4 5	
SC3	Medical informatics	1 2 3 4 5	1 2 3 4 5	
SC4	Motivating staff	1 2 3 4 5	1 2 3 4 5	
SC5	Managing people and teams	1 2 3 4 5	1 2 3 4 5	
SC6	Communication skills	1 2 3 4 5	1 2 3 4 5	
SC7	Managing delivery	1 2 3 4 5	1 2 3 4 5	
SC8	Managing conflict	1 2 3 4 5	1 2 3 4 5	
SC9	Marketing of health care organisation	1 2 3 4 5	1 2 3 4 5	
SC10	Management of change	1 2 3 4 5	1 2 3 4 5	
SC11	Structuring of health services organisation	1 2 3 4 5	1 2 3 4 5	
SC12	Analysis of legal issues	1 2 3 4 5	1 2 3 4 5	
SC13	Bioethics	1 2 3 4 5	1 2 3 4 5	
SC14	Financial performance evaluation	1 2 3 4 5	1 2 3 4 5	
SC15	Budgeting and resource allocation	1 2 3 4 5	1 2 3 4 5	
SC16	Health economics	1 2 3 4 5	1 2 3 4 5	
SC17	Human resource management	1 2 3 4 5	1 2 3 4 5	
SC18	Labour relations	1 2 3 4 5	1 2 3 4 5	
SC19	Strategic thinking	1 2 3 4 5	1 2 3 4 5	
SC20	Planning for future needs	1 2 3 4 5	1 2 3 4 5	
SC21	Analysis of internal and external environment of organisation	1 2 3 4 5	1 2 3 4 5	
SC22	Analysis of the wider health system	1 2 3 4 5	1 2 3 4 5	
SC23	Analysis of government programmes	1 2 3 4 5	1 2 3 4 5	
SC24	Evaluation of health service technology	1 2 3 4 5	1 2 3 4 5	
SC25	Clinical competence and expertise	1 2 3 4 5	1 2 3 4 5	
SC25	Ability to conduct clinical	1 2 3 4 5	1 2 3 4 5	

	audit			
SC26	Health promotion skills	1 2 3 4 5	1 2 3 4 5	
SC27	Epidemiologic analysis	1 2 3 4 5	1 2 3 4 5	
SC28	Quality control and improvement in health service organisation	1 2 3 4 5	1 2 3 4 5	
SC29	Managed health care principles	1 2 3 4 5	1 2 3 4 5	
SC30	Understanding the district health system	1 2 3 4 5	1 2 3 4 5	
SC32	Measuring performance of health care organisations	1 2 3 4 5	1 2 3 4 5	
SC33	Evidence-based medicine	1 2 3 4 5	1 2 3 4 5	
SC34	Learning from experience	1 2 3 4 5	1 2 3 4 5	
SC35	Time management	1 2 3 4 5	1 2 3 4 5	
SC36	Balancing work and life issues	1 2 3 4 5	1 2 3 4 5	
SC37	Integrity and ethical conduct	1 2 3 4 5	1 2 3 4 5	
SC38	Self-awareness	1 2 3 4 5	1 2 3 4 5	
SC39	Self-development	1 2 3 4 5	1 2 3 4 5	

SC 40 Do you think you have the relevant managerial competencies (as described above) to run the free health care
Yes
No

SC41 How Do you rate the free health care in this hospital/clinic
1= very successful,
2= Successful
3 =somehow successful
4 = less successful,
5 = not successful

SC42 Is the problem(s) of the free health care related to lack of managerial competencies as described above?
Yes
No