



UGANDA MANAGEMENT INSTITUTE

**PROJECT PLANNING AND PERFORMANCE OF THE HEALTH  
CENTRE IV PROGRAMME IN KABALE DISTRICT, UGANDA**

**BY**

**PAUL KALIBA**

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF MANAGEMENT SCIENCE IN  
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## DECLARATION

I, Paul Kaliba, declare that the work presented in this dissertation is my original work and that it has not been previously submitted for any academic award at any other institution or university.

Signed: .....

Paul Kaliba (Candidate)

Date: .....

## **APPROVAL**

This research report is submitted with our approval as Institute supervisors:

Signed: .....

Dr. David Onen

Date: .....

Signed: .....

Dr. G.K. Karyeija

Date: .....

## **DEDICATION**

This research work is dedicated to my beloved daughters; Lillian and Julian.

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## LIST OF ACRONYMS

HC IV	Health Centre Level IV
HSSP	Health Sector Strategic Plan
HSSIP	Health Sector Strategic and Investment Plan
MDG	Millennium Development Goals
MOFPED	Ministry of Finance, Planning and Economic Development
MOH	Ministry of Health
PHC	Primary Health Care
PMI	Project Management Institute
PMBOK	Project Management Body of Knowledge
PEAP	Poverty Eradication Action Plan
NDP	National Development Plan
SPSS	Statistical Package for Social Scientists
MRI	Mean Rating Index

## **ABSTRACT**

This research was a correlation survey aimed at finding out relationships between project planning and performance of the Health Centre IV (HC IV) Programme in Kabale District motivated by the nationwide poor performance of the Programme. Project Planning was investigated in respect of scope definition, estimating and scheduling while performance was measured in terms of completion of project components within time and budget as well as functionality of completed facilities. The study sample included 26 officials involved in planning at the district comprising of members of the District Councillors, the District Health Technical Team and the District Technical Planning Committee. Data was collected using a structured questionnaire for the majority of respondents and face-to-face interviews of top district officials. The study findings revealed that planning for the Programme was unsatisfactory. Resources required were neither fully established nor accurately estimated before implementation and estimates were not based on the local conditions. Scheduling for equipment supply and staff deployment was overly delayed. Management of construction was inappropriately assigned to the district that lacked the necessary competencies. Allocations for operational expenses were grossly underestimated. Performance of programme was overly poor. All components were completed late and with cost overruns and there was a scope creep of 40% when the number of HC IVs was increased from 5 to 7. Worse still, all the 7 HC IVs in the district were not offering the intended emergency obstetrics care. Finally, the study established that there was a moderately strong positive correlation between planning and performance of the Programme which implies that the poor performance of the programme in Kabale district could be associated with poor planning. To revamp the programme performance, therefore, it may be necessary to review the requisite planning processes.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 Introduction**

This study was an investigation of the linkages between project planning and performance of the Health Centre IV Programme in Kabale District in Uganda. The Programme involves upgrading of selected health centres to mini hospitals as a national strategic intervention towards achieving the Millennium Development Goal of reduction of maternal mortality. However, performance of the programme, countrywide, has fallen below expectation which has caused national concern (Lukwago, 2010). This introductory chapter is a presentation of the background to the study, the problem statement, the study objectives, research questions and hypotheses, the conceptual framework, scope of the study, justification and significance. The chapter ends with an outline of the structure of the dissertation.

### **1.1 Background to the Study**

#### **1.1.1 Historical Background**

Project planning, as a core function in the project management cycle, could be thought of as being as old as the existence of humanity because all mankind's accomplishment began as a project (Gray & Larson, 2008). However, history shows that modern project planning techniques were only initiated in the 19<sup>th</sup> century by Henry Gantt (1861-1919), commonly referred to as the father of planning and control techniques, and Henri Fayol (1841-1925) who identified planning and forecasting as a vital element of his postulation of the five functions of management (Gray & Larson, 2008). Both Gantt and Fayol developed their concepts during the last 20 years of the 19<sup>th</sup> century into the early 20<sup>th</sup> century at a time when there was an ugly competition in the

factory life after the industrial revolution of the 18<sup>th</sup> and parts of 19<sup>th</sup> centuries. The revolution gave rise to new factories, new plant and machinery; labour was plenty but the problem was how to organise all the elements into efficient and profitable operations (Cole, 2004). At the time, project planning was based on trial and error methods with little or no theoretical backing and with limited sharing of ideas and practices. However, the rapid advancement in technology, knowledge explosion, global competition as well as increased customer focus that came with the industrial revolution and the social demands of the 20<sup>th</sup> and 21<sup>st</sup> centuries, created a need for rational, efficient and flexible ways of doing things. Consequently, acquisition of project planning knowledge gained much attention (Fox & Waldt, 2007). The motivation for the evolution and advancement in knowledge of project planning reaffirms the general belief that planning is linked to performance.

However, despite the advancement in project management knowledge, many projects continue to be challenged. Projects continue to be completed late, over budgeted for and with less than required features and functions (Gray & Larson, 2008). Studies by the Standish Group (2009) on performance of Information Technology projects in the United States showed that only 32% of the projects were successful; 44% were challenged while 24% of the projects completely failed being cancelled prior to completion and never used. That projects have continued to experience performance hitches despite advances in planning knowledge and practice, raises questions on universality of linkages between project planning and project success. This is what motivated the researcher to find out the relationships between planning and the performance of the Health Centre IV Programme in Kabale district.

### **1.1.2 Theoretical Background**

Planning is one of the five basic functions of management alongside organising, staffing, directing and controlling (Koontz & Weihrich, 2001). It is the management function that deals with defining and deciding in advance the appropriate future course of action for achievement of pre-determined goals (Gray and Larson, 2008). It is forethought and rational decision making about future activities intended to result into efficiency and effectiveness in production (Cole, 2004). Litman (2012) asserts that effective planning should involve taking into account diverse perspectives and impacts to allow decision makers to identify and implement the most effective ways to achieve goals. Planning, therefore, is a decision making process of systematic thinking about ways and means for accomplishing pre-determined goals designed to enhance prediction of the expected project outcomes. These descriptions that indicate planning as a decision making process suggest that the theory of planning could best be explained by the “*Theory and Concept of Decision Making*”.

Decision making is defined as the process of choosing a particular action that deals with a problem or opportunity that is majorly based on the principles of rationality theory (Ivancevich, Kanopaske & Matteson, 2011). Rationality, just as planning, involves coming to the best solution by selecting the alternative among the identified courses of action that most effectively delivers the desired goals under particular circumstances and limitations (Ivancevich *et al.*, 2011). Rationality presupposes that careful analysis and study will result in success in attainment of goals. According to Alexander (2000), the association between planning and rationality is unabated but observes that different levels of planning require different forms of

rationality. There are basically three levels of planning associated with the different levels of management, that is; strategic, tactical and operational planning (Stoner *et al.*, 2001).

Project planning is undertaken after the project has been positioned in the overall strategy for the organization and is therefore majorly tactical and operation levels of management. It is concerned with ensuring that the set project objectives are achieved without evaluating of the project towards achieving the overall organisational goals (Cleland & Ireland, 2007). In this regard, project planning basically follows the principle of instrumental rationality approaches which aim at seeking the most efficient and cost-effective means to achieve predetermined specific goals without reflecting on the worthiness of those goals (Alexander, 2000; Raz, 2005). In this study therefore, it was envisaged just like by Kreitner (2002) that the rational philosophy underpinning planning enhances project success by reducing uncertainty, improving efficiency in operation, enabling better understanding of objectives and providing basis for monitoring and controlling. Planning was therefore believed to enhance project success as a result of enabling proper utilization of resources realised by avoiding confusion, uncertainties, risks and wastage.

### **1.1.3 Conceptual Background**

#### **1.1.3.1 The concept of planning**

Cole (2004) and Litman (2012) describe planning as the activity of breaking down issues, rationalising them and attempting to articulate them to enable visualisation of the likely future outcome of a set of actions. In this regard therefore, planning is a common sense human activity that is sometimes applied unconsciously whenever we set out to do anything when working out what to do, when to do it and how to do it.

There is however no universal agreement on the components of planning. The Project Management Institute (PMI) identifies project planning as the second stage of the project management cycle, consisting of twenty one processes (PMI, 2000). Fox and Waldt (2007) however, aggregates these processes into three core functions namely; defining work necessary to complete a project, identifying the resources required to complete the project and developing the schedules for the project.

The International Federation of Red Cross and Red Crescent Societies (2000), on the other hand, describe planning to include all the first two stages of “the project management cycle” which they categorise as conceptualisation, plan and prepare. The inclusion of conceptualisation in planning tends to show that planning extends up to the strategic level of management. This ideology is also shared by Cole (2004) who indicates that the planning function crosses all levels of the management hierarchy but only differs in content at each level. Additionally, the International Federation of Red Cross and Red Crescent Societies (2000) suggests that effective planning for public projects requires agreeing on the expectations and getting agreement among all the stakeholders about the targets and the schedule.

While there are variations in description of the components of planning by the different authors, a close examination of the descriptions shows that all authors agree that project planning includes the three core functions of defining project scope, development of project time and cost estimates, and project activity scheduling (Larson & Gray, 2008; Fox & Waldt, 2007). These components were the ones adopted for this study.

### **1.1.3.2 The concept of project performance**

There are wide differences in the meaning attached to project success among project stakeholders. According to Kuen, *et al.* (2009) and Litsikakis (2004), the divergent views are majorly because each individual or group of people involved in a project have differing needs and expectations and, therefore, interpret success in their way of understanding. For those involved with project management, project success is thought of as the achievement of the outputs of the pre-determined project objectives; while the beneficiaries view success based on long term outcomes, impacts and user satisfaction.

Another issue of contention, when discussing performance of projects is the distinction between project success and project management success. *Project success* is success measured against the overall objectives of the project and therefore related to effectiveness in obtaining the intended impacts while *Project management success* is success measured against time, cost and quality and thus concerned with efficiency in utilising resources to achieve short term project objectives (Cooke-Davies, 2002). Project management success is accorded if a project is completed within the budgeted cost, implemented on time and to designed features and functions.

This study considered both project management success and project success. Project management success was considered in respect of cost efficiency and timeliness of completion while project success was evaluated in terms of functionality of the completed facilities. The three variables were considered in the study because they are the major cited factors of concern in the Health Centre IV Programme (Lukwago, 2010).

### **1.1.3.3 Association between Planning and Project Performance**

Several project management scholars link project performance or success to the effectiveness of the initial planning for the project. According to Mochal (2003), lack of or inadequate planning is one of the major factors linked to poor performance of projects. He observes that if the major characteristics of the project are not properly defined and agreed upfront, it is likely to have differences in expectations among the major stakeholders as the project progresses and thereby unjustly assess the project as failure by those whose expectations are not met. Additionally, inadequate planning may lead to new ideas coming up during implementation causing confusion and rework and changes in scope which may result in higher costs and delayed completion. Conversely, if budgets and timelines for the projects are underestimated, the project will start with inadequate resources and become unsuccessful because they overshoot their budgets and timelines which were unrealistic at the start.

Studies by Gibson, *et al.* (2006) on 200 capital industry and building projects, affirmed the positive relationship between project planning and enhanced project performance. Wideman (2001) also alludes to the existence of linkages between planning and project performance but points out that failure of a project does not necessarily imply poor planning. He stresses that while lack of a sound plan will almost ensure failure, environmental factors such as technological advancements, socio-economic and political situations in the project setting, could also affect success. It is therefore apparent that the contribution of planning towards project success can only be established through thorough study for the particular project environmental setting. This study sought to examine the linkages between project performance as the dependent variable, and project planning as the independent variable cognizant of the possible

effects of the environmental factors. Project performance was evaluated in terms of timeliness of completion, cost efficiency and functionality while project planning was considered in respect of project scope definition, time and cost estimation, and project scheduling

#### **1.1.4 Contextual Background**

Uganda has not survived the bug of poor project performance. In the last twenty years, Government has invested heavily in development programmes and projects to rebuild the country's structures which broke down during the turbulent era of the 1970's and early 1980's, and to expand others to meet the increased demands (Nsibambi, 1998). However, many of these programmes are experiencing several hitches countrywide (Sekkonu, 2002). The Auditor General's Value for Money Audit (2006) for programmes in the health sector revealed that 16 out of the 81 sampled construction projects in districts were stalled while the completed ones were delayed and / or poorly constructed.

Nevertheless, Government of Uganda embraces rigorous planning as a tool for enhancing effectiveness and efficiency in service delivery and development (National Planning Authority, 2010). There are comprehensive established planning structures and processes at the national, sectors and local government levels. At the national level, between 1997 and 2009, planning was guided by the Poverty Eradication Action Plan (PEAP) as the overarching planning framework which was replaced by the National Development Plan (NDP) in 2010. During the same period, specific planning in the health sector was guided by the Health Sector Strategic Plan (HSSP) which was replaced in 2010 by the Health Sector Strategic and Investment Plan (HSSIP).

Furthermore, the Local Government Act (1997) provides rigorous planning structures for planning at the local government levels. Section 35 of the Act establishes District Councils as planning authorities of districts while section 36 provides for formation of District Technical Planning Committee to carry out the actual technical planning function. There are also sector (such as health) standing subcommittees of the district council which undertake sector-specific planning. The District Health Management Team is another organ for, among others, specific technical planning advice on health in the district.

Local governments annually undertake rigorous planning and budgeting processes that involve consultative workshops and review of the budget proposals by both cabinet and parliament (Uganda Debt Network, 2003). This is why the poor performance of government programme causes concern and raises questions about the association between planning and project success, considering the meticulous planning systems under which they are implemented. Could it be that rigorous planning has no worthwhile relationship with success of projects? Could it be that it is the planning systems employed that are inappropriate? These are among the questions that motivated this research.

The Health Centre IV programme under this study is a countrywide government project for upgrading selected health centres in Uganda (Lukwago, 2010). The programme is aimed at establishing emergency obstetric care services nearer to the population by providing operating theatres, equipment and staff houses as well as increasing staff at selected health centres, as a strategy to reduce maternal mortality (Ministry of Health, 1999). It is implemented by districts on annual conditional grants allocated by the central government through the Ministry of Health.

The programme, however, has experienced an overly poor performance. It was scheduled to take four years at a cost of approximately Uganda Shillings Eleven (11) billion, but has taken over 10 years and at a cost of over Uganda Shillings 30 billion and yet most of the health units have remained non-functional and with incomplete facilities (Ministry of Health, 1999; Lukwago, 2010). Furthermore, whereas the concept paper proposed 114 Health Centres, up to 169 Health Centres have been established indicating a scope creep of about 48% (Ministry of Health, 2011).

A survey conducted by Ministry of Health in 2006 covering the whole country indicated that functionality of sampled facilities was below 50% and provision of the intended emergency obstetric services was at only 22%. It is believed that the poor performance of the programme is responsible for the marginal progress in reduction of maternal mortality from 506 deaths in 1995 to the current 435 deaths per 100,000 live births (MOFPED, 2010). The country is therefore unlikely to achieve the Millennium Development Goals (MDG) national target of reducing maternal deaths to 131 deaths per 100,000 live births by 2015. This study sought to examine the extent to which the observed poor performance of the Health Centre IV could be linked to its planning processes.

## **1.2 Statement of the Problem**

Rigorous project planning is perceived to enhance project success (Fox & Waldt, 2007). However, the programme for upgrading of HC IVs in Uganda has not been successful despite being managed under meticulous government planning structures and procedures. The program was scheduled to take four years at a cost of Shs.11 billion but after over 10 years and expending over Shs.30 billion, most (84%) of the health centres are non-functional with many of them

incomplete (Ministry of Health, 2010). There has also been a scope creep of over 48% exhibited by the increased number of health centres under the project from 114 to 169. The programme is a key strategy for achieving MDG 5 and its failure is therefore of great concern as it is likely to lead to continued high maternal mortality rates, increased poverty and undermined growth of the national economy.

Investigations by the Auditor General and Ministry of Health into the cause of the poor performance of the programme delved in examining hitches in the implementation and monitoring processes and addressing them, but such efforts have not yielded noticeable improvements in the programme performance (Lukwago, 2010). As a result of the continued failure of the programme, it was recommended at the National Health Assembly 2011 that the whole programme structure be reviewed. This raised questions as to whether the poor performance could be related to the initial planning for the programme.

### **1.3 Purpose of the Study**

The purpose of the study was to examine the relationships between project planning and performance of the Health Centre IV programme in Kabale district in Uganda.

### **1.4 Objectives of the Study**

The research was guided by the following specific objectives:

1. To find out the relationship between project scope definition and performance of the HC IV programme in Kabale district in Uganda

2. To examine the relationship between project resources estimation and performance of the HC IV programme in Kabale district in Uganda
3. To find out the relationship between project scheduling and performance of the HC IV programme in Kabale district in Uganda

## **1.5 Research Questions**

The research sought to answer the following research questions:

1. What is the relationship between project scope definition and performance of the Health Centre IV programme in Kabale district?
2. What is the relationship between project estimating and performance of the Health Centre IV programme in Kabale district?
3. How is project scheduling related to performance of the Health Centre IV programme in Kabale district

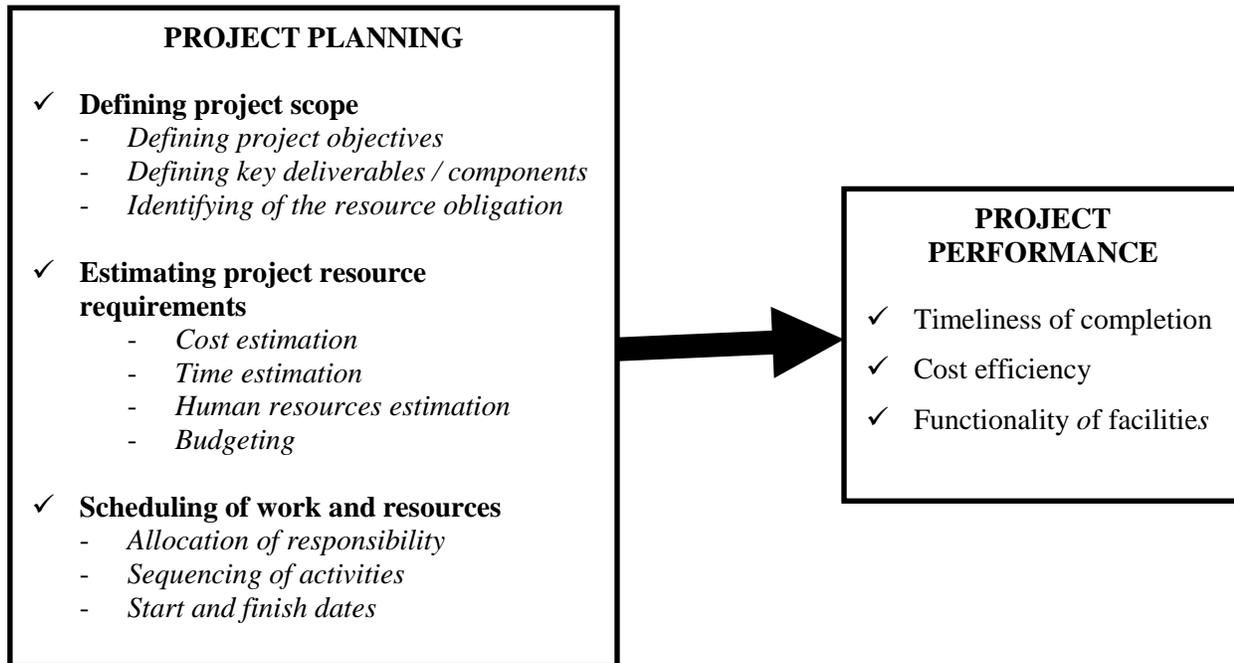
## **1.6 Research Hypotheses**

The research sought to test the following null hypotheses:

1. There is no relationship between project scope definition and performance of the Health Centre IV programme in Kabale district.
2. There are no relationship between project estimation and performance of the Health Centre IV programme in Kabale district
3. There is no relationship between project scheduling and performance of the Health Centre IV programme in Kabale district.

## 1.7 Conceptual Framework

The study was guided by the conceptual framework that explains the perceived relationships between the study variables as summarised in Figure 1.



**Figure 1: Conceptual Framework for the Study**

*Source: Rationality Theory adapted and modified to project management concepts (Cleland & Ireland, 2007)*

The framework shows that project performance is linked to project planning meaning that project success bears linkages with effective planning. The framework also indicates that effective project planning is assumed to have been achieved when the project scope is clearly defined by outlining the project objectives, deliverables, and description of the technical and resource requirements (Fox & Waldt, 2007). Additionally, resources estimates and budgets have to be accurate and realistic to cover all the components of the project and matched with the project area local conditions. Lastly, project scheduling of work ought to be accurately and

appropriately determined and matched with the available resources to ensure that the set targets are realistic and achievable.

On the other hand, project success is prescribed when a project is completed within budget and time, and the completed facilities are functional for the intended objectives (Cusworth & Franks, 1993). This research study sought to establish the appropriateness of the relationships expressed by this conceptual framework in explaining the observed poor performance of the Health Centre IV programme in Kabale district in Uganda.

### **1.8 Significance of the Study**

The study findings and recommendations will enable the Kabale district and the Ministry of Health management to recognise hitches in the planning process for the Health Centre IV Programme and the likely manner in which it is linked to the observed programme performance. The findings could make a contribution towards strategic review of processes for formulation of future health sector initiatives based the empirical information derived from this study. The results have also added to the body of knowledge and understanding of the linkages between project planning and performance of projects.

### **1.9 Justification of the Study**

Government is spending colossal amounts of money on the Health Centre IV programme. Over Shs.30 billion has been spent to date (Ministry of Health, 2000-2010). However, the programme has not been successful as most (>50%) of facilities are not functional (Lukwago, 2010). The programme is of strategic value intended to contribute towards reduction of the maternal

mortality and a key component of the Millennium Development Goals aimed at reducing poverty and promoting economic growth in United Nations member states (Overseas Development Institute, 2008). Failure of the programme is not only causing financial loss to government, but is also likely to contribute to weakening of national economic development and increased poverty.

The factors that have led to the poor performance have not been conclusively identified but planning, being one of the major factors linked to project success, is suspect. This study sought to establish the linkages between planning and performance of the programme. The findings could contribute towards obtaining the required solutions to rejuvenate the programme.

## **1.10 Scope of the Study**

### **1.10.1 Geographical scope**

The study was carried out in Kabale District in South Western Uganda. (See location map in Appendix 1). The District was selected on the basis that it has the highest number (7) of HC IVs and therefore presumed to have the widest experience of the Health Centre IV programme (Ministry of Health, 2011). The national distribution of Health Centre IV by district is indicated in Appendix 2. Kabale district is also among the districts which were reported to exhibit poor performance on the programme (Ministry of Health, 2006).

### **1.10.2 Time scope**

The proposed study was carried out on the basis of experiences of respondents over the twelve years period of implementing the Health Centre IV Programme from 2000 to 2011. This is the entire period of formulation and implementing the Health Centre IV programme.

### **1.10.3 Content scope**

The research focused on an evaluation of the project planning processes and identifying their linkages with the realised performance of the Health Centre IV programme in Uganda on the basis of the experiences by Kabale district. The study examined the core planning processes of scope definition, estimation of the resources requirements and activity scheduling for the programme as the independent variables. Performance of programme was considered in respect of timeliness and cost efficiency in implementation of the programme as well as the extent of functionality of the target facilities, as the dependent variable. The study sought to identify relationship between the project planning and project performance.

## **1.11 Operational definitions**

Project performance	The term project performance is used interchangeably with project success. Success (good performance) is assumed when a project is completed on time, within budget and the completed facilities are put to the function intended
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Planning	The term planning means operational planning limited to project scope definition, project estimation & budgeting, and scheduling
Functionality of HC IV	A functional Health Centre IV is one providing basic emergency surgical and obstetrics care as well as essential clinical care in accordance with the Uganda Minimum Service Standards (Ministry of Health, 2006)
Project cost:	The actual amount paid for project execution of project components.
Project Schedule:	The planned sequencing and duration of executing project activities and or components

## **1.12 Structure of the Dissertation**

The research report is structured into five chapters. Chapter one is the Introduction. It presents the background to the study, problem statement and the study objectives and scope justification and significance; Chapter Two is a review of pertinent literature that formed the foundation for the study. Chapter Three is the methodology outlining the methods and procedures used for sampling, the research instruments, data collection and analysis as well as the measures taken to ensure reliability and validity of the study instruments and results. Chapter Four is the presentation, analysis and interpretation of results of the data collected and Chapter Five is a discussion of key findings, the conclusions and recommendations.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

In this section, a critical examination of the existing theory and concepts regarding the study variables; project planning and project success as well as the relationship between them is presented. The chapter is structured into four sections namely: Sections 2.1, 2.2 and 2.3 discuss the relationships between the three core elements of planning (*Scope Definition, Estimating and scheduling*) and project success. The last section 2.4 is a summary of the literature reviewed.

#### **2.1 Project Scope Definition and Project Success**

##### **2.1.1 Project Scope Definition**

Project scope is described as the end result of the project that includes project objectives, deliverables, milestones, technical requirements and specifications as well as limits and exclusions (Gray & Larson, 2008). Project scope definition involves the development of a Work Breakdown Structure by the successive subdivision of the project into smaller and smaller work elements necessary to achieve the project objective (Fox & Waldt, 2007). Conversely, the Project Management Institute (2008) recognises two types of scope in the context of a project namely product scope and project scope. *Product Scope* indicates the features and functions that characterise a product, service or result delivered by the project, while *Project Scope* is the work that needs to be accomplished to deliver a product, service or result with the specified features and functions. Project scoping provides information that enables accurate estimation of time, cost and resources so that adequate resources can be mobilised or provide basis for decision makers

on whether to proceed with the project based on the resources available (Fageha & Aibinu, 2012).

### **2.1.2 Scope creep**

Scope creep refers to the incremental expansion of the project scope during the course of implementing a project, usually by changing requirement, specifications and priorities (Gray & Larson, 2008). This happens when more activities are added to the project, which were not in the initial requirements. According to Gray and Larson (2008), scope creep can be reduced by carefully writing the scope statements to sufficient detail. It is argued that a scope statement that is too broad increases the complexity of the project as too many unrelated elements have to be managed simultaneously, and is an invitation for scope creep (Fox & Waladt, 2007). A project experiencing unjustified scope creep will in most cases result in increased project cost and time, and may affect the functionality of the intended facilities. This will therefore lead to the project being considered unsuccessful.

### **2.1.3 Linkage between scope definition and project performance**

According to the Project Management Institute (2008), the major objective of breaking down the project into small manageable components during project scoping is to: improve the accuracy of cost, time and resource estimates; define a baseline for performance measurement and control as well as facilitating clear responsibility assignment. It is argued that the process of developing the WBS during project scoping enables those involved in the project development to think of the totality of all products and services comprising the project to ensure completeness and compatibility of all work that is required for the successful completion of the project (Cleland &

Ireland, 2007). This reduces the chance scope creep during the execution of the project necessary for enhancing project success.

According to Cleland and Ireland (2007), when projects are started before the requirements are fully defined and understood, the project team may drift away from the customer needs and fail to deliver the intended results and thereby render the project unsuccessful at completion. They contend that scope has to be clearly defined and agreed upon to avoid differences in expectations among stakeholders as the project progresses. Otherwise, lack of clarity of the project scope may give rise to new ideas during implementation causing rework and scope creep as little by little work is inadvertently added until the original schedule and cost estimates are exceeded and become meaningless.

In affirming the importance of stakeholders' participation in determining the project scope, the International Federation of Red Cross and Red Crescent Societies (2000) emphasise that for planning to enhance project success, project planning should never be done in isolation of beneficiaries and implementers. They cite that the most successful and sustainable projects make an effort to involve those who are to benefit so that the thoughts of the beneficiaries about the problem are sought as well as agreement on what is necessary to address it.

As is strongly argued by Gray and Larson (2008), clearly defining the work of the project enables effective project control and improves the identification of changes. An incomplete or inaccurate scoping of a project results in a poor project plan that is difficult to manage or control. Out of control projects are more likely to experience scope creep, cost more and take longer than

originally estimated resulting into poor performance. The WBS developed during the scoping exercise therefore enhances project success by ensuring that all components necessary for delivering the project objectives are identified. It also creates easy-to-cost small work packages that enable more accurate estimates. Studies cited by Gray and Larson (2008) involving more than 1400 projects in the United States and Canada, indicated that poorly defined project scope was the most mentioned barrier to project success and that 50% of the planning problems are related to unclear definition of scope. This and other studies, therefore, suggest a strong correlation between project success and scope definition; one of the subject of investigation in this study.

However, failure of a project does not necessarily imply poor planning. According to Wideman environmental factors such as technological advancements, socio-economic and political situations in the project setting, could also affect success of a project. It is therefore imperative that for one to determine the extent association between scope definition and project success can only be established through thorough study for the particular project and environmental setting, and thus this study.

## **2.2 Project Estimating and Project Success**

### **2.2.1 Project Estimating**

Estimating is the process of forecasting or approximating resources requirements for completing project deliverables (Gray & Larson, 2008). It is a tool for determining the required financing, time and effort for completing a project as well as for decision making on the feasibility of a project (Fox & Waldt, 2007). Cost, time and budget estimates are the basis for control which are

compared with the actual values obtained to determine the level of project performance (Gray & Larson, 2008). Despite the importance of estimating, Tylor (2007) indicated that 80 percent of projects costs and schedules are underestimated in the beginning. Indeed, as pointed out by Lorrallo and Kahnemar (2003), human beings have a hardwired tendency to be optimist whereby they routinely exaggerate benefits and discount costs which leads them into underestimating.

According to Gray and Larson (2008), accuracy of estimates could be affected by several factors including the experience of the estimator, involvement of end users and availability of information about the expected project work. It is argued however that there could be limitations to the level of accuracy achievable because improvement of accuracy of estimates also costs effort and money (Gray & Larson, 2008). Project estimating, therefore, is a complex puzzle involving trade-off and balancing the benefits of accurate estimates and the cost for securing optimal accuracy.

As indicated by Young (2012), best practices in estimating require breaking down of scope into detailed requirements that are measurable to ensure that the estimators are clear of everything to be delivered. Adequate time should be allowed for estimation to enable a good job to be done. Young (2012) also argues that accuracy of estimates is highly dependent on availability of sufficient information to support the estimation process which is greatly enhanced by involving people that will do the work (Young, 2012).

## **2.2.2 Linkage between project estimates and success of the project**

Delivering of project results within estimated time, cost and quality parameters is the critical measure of project success (Cusworth & Franks, 1993). Poor estimates affect project success in several ways. If budgets and timelines for the project are underestimated, the project will start with inadequate resources which when exceeded as work progresses will mean poor project performance (Mochal, 2003). In effect, some projects that would otherwise be successful are viewed as failures because they overshot their budgets and timelines which were unrealistic at the start. Therefore, it is always necessary to have accurate estimates as inaccurate estimates may lead to false expectation and consumer dissatisfaction which are precursor to poor project performance. Poor estimating will therefore result in cost overruns, if the planned scope of the project is to be completed.

Additionally, shortfalls in the estimates discovered during implementation of projects will result loss of time when securing and organising additional resources and funds which may lead to project delays (Galorath, 2011). At the extreme therefore, poor estimates could results in total failure of a project if the additional resources cannot be realised. Poor estimates could also lead to changing of the project goals and the subsequent customer dissatisfaction and frustration.

## **2.3 Scheduling and Project Success**

### **2.3.1 Scheduling of Resources and Activities**

When the time and cost estimates for each project activity have been established, project planning is concluded with scheduling of the project activities within the constraints of the resources available (Gray & Larson, 2008). Scheduling is the sequencing of the project activities

and resources indicating the project's terminal elements and the intended start and finish dates (Fox & Waldt, 2007). Scheduling also involves assignment of authority, responsibility and accountability so that members of the project team know what their specific roles are and how they relate to other members of the project team (Cleland & Ireland, 2007). It can be summarily stated, as is expressed by the Project Management Institute (2008), that the project schedule is a description of what work is to be done, who will undertake the work and when it should be done.

According to Gray and Larson (2008), the main objective of the scheduling is to make realistic judgment and predictions of sequencing of project activities and duration, based on credible time estimates that conform to the available resources and compatible with other organisational plans that share common resources (people, materials and equipment). In other words, scheduling is concerned with understanding the resources available, the constraints and risks associated with the project work so that the project activities and events are linked in the best way to complete the project efficiently. Availability or unavailability of resources influences the scheduling of project activities and overall manner in which the project is managed (Gray & Larson, 2008).

The scheduling problem is carried out depending on the nature of constraints prevailing. In the context of scheduling, projects are classified either *time constrained* or *resource constrained* (Gray & Larson, 2008). Time constrained means time (project duration) is fixed and resources are flexible while resource constrained means that resources are fixed and time is flexible. A deficit of resources would call for altering completion dates and, sometimes, project costs. Failure to schedule limited resources at the planning stage would result in costly activity and

project delays during implementation when corrective actions are difficult arising out of project constraints.

### **2.3.2 Linkages between Scheduling and Project performance**

Scheduling provides a basis for monitoring and controlling project activities (Fox & Waladt, 2008). If the timelines attached to project activities are underestimated, it will give false expectations to stakeholders and thereby present a misrepresentation of the project performance when the project fails to achieve the unrealistic schedules (Cleland & Ireland, 2007).

Another factor associated with scheduling noted by Gray and Larson (2008) is when schedule does not provide definite intermediary stages at which quality problems can be checked. When errors are realized in the 'final' polishing stages, error-correction may take more resources and much longer than would be if the errors were detected in time. This means that, in addition to setting realistic overall project schedules, it is advisable to schedule projects in distinct stages, to enable early identification of quality problems and rectify them before they seriously threaten the project schedule and performance.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter is a presentation of the methods and procedures which were followed in carrying out the research to achieve the study objectives. It outlines the research design, the study area and location, the study population and sample design. It also describes the instruments and methods used for data collection, presentation and analysis to enable meaningful interpretation of the study results. Measures which were taken to enhance reliability and validity of the data collection instruments are also discussed in this section.

#### **3.1 Research Design**

The research was a cross sectional correlational survey that sought to gain in-depth information on experiences of district officials on planning for and the performance of the Health Centre IV programme in Kabale District. The study involved collection of on time information from respondents between March and April 2012.

A cross-sectional survey was adopted so that the research can be completed within the slated period for completion of the research study for award of a Masters degree as well as enabling gathering of comparable information. According to Yee and Niemeier (1996), cross-sectional studies are suitable for situations of limited time and resources.

Although the study was majorly descriptive, it was also aimed at determining relationships (correlations) between the dependent and independent variables. On the other hand, the Health Centre IV programme being a national scheme, the study also had elements of a case study design since the detailed study on Kabale district could also give insights into the national status of the programme. Overall, the study was basically quantitative research design.

### **3.2 Study Population**

The population for the study was all persons involved in planning for health services in Kabale District local government comprising members of the community, politicians and public servants. However, this population is so widely spread over the entire district that it would be very costly and not manageable to reach it within the time for the study. The study elements were therefore limited to the accessible population consisting of officials involved in planning at the district headquarters. This target population was selected because it consisted of persons considered to be most technically competent and best informed about the issues of concern for the study.

According to the Local Government Act (Uganda Government, 1997), the three main parties responsible for planning for health in a district environment are: the District Council, the Technical Planning Committee consisting of district heads of departments and the District Health Team (DHT). Table 1 summarises the study population.

**Table 1: Study Population**

<b>Category of Respondent</b>	<b>Target Population</b>
District Council Members	43
Members of the District Technical Planning Committee (Excluding District Health Officer)	7
Members of the District Health Team	11
<b>Totals</b>	<b>61</b>

*Source: Kabale District Staff Register and Electoral Commission Register (2011)*

### **3.3 Sampling**

#### **3.3.1 Sample size and selection**

The sample for the study included all members of the District Health Team and the District Technical Planning Committee and eight members of the District Council. Because of the wide geographical spread of district council members over the entire district, only the 8 members of the district council that sit on the standing committee for health were included in the sample to fit within the resources available to the researcher. Additionally, members of the standing committee for health were selected because they are assumed to be most knowledgeable about matters of health than other council members and were therefore believed to have more reliable information for the study. A sample size of 26 persons was therefore used for the study as per the composition indicated in Table 2.

**Table 2: Study Sample**

<b>Category of Respondent</b>	<b>Target Population</b>	<b>Sample</b>
District Council Members on the Standing Committee for Health	43	8
Members of the District Technical Planning Committee ( <i>Excluding District Health Officer</i> )	7	7
Members of the District Health Team	11	11
<b>Totals</b>	<b>61</b>	<b>26</b>

### **3.3.2 Sampling Techniques and Procedure**

Non probability sampling methods were used in the study. Purposive, stratified and census sampling techniques were used. Purposive sampling was used to determine categories of persons to include in the study among all those involved in the planning for health in a district environment. Only those members known to be most concerned with planning process for health were selected and included in the study that is; the district health team, district planning committee and district council members of the standing committee on health). According to Mugenda and Mugenda (2003), purposive sampling is appropriate for studies where the respondents with the required information are well known so that only those are targeted. Stratification of the sample was done by identifying and categorising the study sample by the three constituent subgroups of the accessible population so as to ensure that the selected sample is representative of the entire target population. Census sampling was used on elements of the district technical planning committee and the District Health Team. Census method was used because of the small numbers in the two groups.

### **3.4 Data Collection**

#### **3.4.1 Data collection Methods**

The study information was obtained by three methods, that is; questionnaire survey, interviewing and documentary review.

##### **3.4.1.1 Questionnaire Survey Method**

The questionnaire survey method was used to obtain most of the primary data from the majority of respondents. The Questionnaire survey method enables gathering well thought information from the many respondents at relatively low cost as well as collecting information from busy officers who would otherwise not be able to accept lengthy oral interviews (Amin, 2005). Some responses were received by email from respondent who could not be met at their work places.

##### **3.4.1.2 Interview Method**

Interviewing method was used to supplement the questionnaire method by getting deeper insights into the elements of the study from top district officials who take the core management responsibility for planning and implementation of health programmes in the district. Three officials were interviewed: the District Health Officer, the District Chairman and the District Secretary for Health (also Secretary to the Standing Sub-Committee for Health).

##### **3.4.1.3 Documentary Review Method**

Documentary review method was used to obtain secondary data to supplement and triangulate information obtained by the questionnaire survey and interviewing methods with regard to

performance of projects under the HC IV programme and also on the planning efforts made. Documents reviewed included the project formulation documents, programme implementation progress reports and annual performance reports.

### **3.4.2 Data collection Instruments**

Three data collection instruments were used to collect data namely: Questionnaire, Interview Guide and documentary checklist.

#### **3.4.2.1 Questionnaire**

A questionnaire was used to collect primary data from respondents on their views and evaluation of the planning processes for the Health Centre IV programme. The questionnaire was overly structured with only one open question. The structured questionnaire enabled gathering systematic, uniform and well thought information from respondents at relatively low cost. The closed nature of questions presented by a structured questionnaire enhanced reliability of the research since every respondent had to answer exactly the same questions without alteration. Analysis and comparison of responses was also easier. A copy of the questionnaire is annexed to this research report in Appendix 3.

#### **3.4.2.2 Interview guide**

According to Colin *et al.* (2007), structured questionnaires have the disadvantage of constrained detail about the subject of study because respondents are compelled to answer in only a particular way. To alleviate this limitation, the study also involved an interview guide for face-

to-face discussions with selected respondents. The guide was designed to gather information on the study variables and the relationships between them. A copy of the interview guide is annexed to the research report in Appendix 4

### **3.4.2.3 Documentary Check list**

A Documentary check list was used to outline the categories of documents or data related to the subject of study to be examined. The checklist was prepared to guide the review to ensure that omissions are avoided.

### **3.4.3 Procedure of Data collection**

The researcher obtained a letter from the department of higher degrees of the Uganda Management Institute introducing him to district authorities and respondents. A copy of the letter is annexed in Appendix 6. The questionnaires were physically distributed to respondents by the researcher. The questionnaires were majorly self-administered with a few cases researcher administering at the request of respondents. Some of the questionnaires were emailed to respondents who could not be reached in their offices. The researcher physically collected the completed questionnaire to ensure high response rate.

Additionally, the researcher held face-to-face interviews with the top officials of the district namely; the District Health Officer, the Secretary of Health and the District Chairman for more detailed insights into the issues of the study. The relevant documents reviewed were physically obtained from the district Health Office and the resource centre at the Ministry of Health Headquarters.

### **3.5 Validity and Reliability of Instrument**

The data collection instruments was examined for adequacy to measure the variables of the study (validity) as well as the capability to consistently yield the same results when administered at different times on repeated trials (reliability).

#### **3.5.1 Validity**

Content validity of the questionnaire was ascertained by expert judgement method by discussing the draft instrument (questionnaire) with the supervisors. During the review of the questionnaire, questions that had been included for the extraneous variables were omitted and the structuring of the basic background data about respondents was improved. All the other statements were agreeable to the supervisor.

#### **3.5.2 Reliability**

Reliability of the questionnaire was established by pre-testing it on similar categories of six respondents in Wakiso district. The split-half method was used to determine the internal reliability of the instrument. According to Amin (2005), the split-half method is appropriate for situations of limited time since it involves administering the test once and minimises errors that could arise due to change of testing conditions.

The internal consistence of the instrument was assessed based on both the Spearman-Brown and Guttman's split-half reliability coefficients between two halves of the questionnaire responses.

The analysis of the data obtained in the pretesting of the questionnaire using SPSS (*Test results are presented in Appendix 5*) yielded a reliability coefficient of 0.84 for both Spearman-Brown and Guttman's split-half reliability. According to Barifaijo, Basheka and Oonyu (2010) a reliability coefficient of 0.7 or higher is adequate for research purposes. With the reliability coefficient of 0.84, therefore, the questionnaire was considered satisfactory to collect sufficiently reliable information and was therefore used for the study without modification.

### **3.6 Data Processing and Analysis**

#### **3.6.1 Data Processing and Presentation**

Quantitative data obtained by the structured questionnaire was coded and input in the Statistical Package for Social Scientists (SPSS). Qualitative data collected through interviews was compiled in notes and summarised majorly to complement the information obtained in the questionnaire responses. Data was presented in frequency tables, pie charts and charts. Average rating indexes and percent distribution of responses for the different aspects of planning and of performance were computed to determine the perception of respondents on each of the study aspects.

#### **3.6.2 Data Analysis**

Data was analysed using Mean Rating Indexes (MRI) and Percent distribution of responses for the different dimensions of planning and of performance to determine the perceptions of respondents on each of the study elements. The Mean Rating Indices were calculated as follows (Majid & McCaffer, 1998):

$$\text{Average Rating Index} = \frac{\sum \mu \cdot n_i}{N}$$

Where:

$\mu$  = Weight given to the respondents' response (1 to 5) for the 5 levels of the likert scale

$n_i$  = Frequency of respondent for weights 1 to 5 corresponding to Strongly disagree through to Strongly agree on the likert scale

N= Total number of respondents

In classifying responses, the MRIs were converted into discrete categories that define the level of agreement as suggested by Majid & McCaffer (1998) as follows:

<b>Rating scale</b>	<b>Range</b>
Strongly Agree	$4.5 \leq \text{Mean Rating Index} \leq 5.0$
Agree	$3.5 \leq \text{Mean Rating Index} < 4.5$
Not sure	$2.5 \leq \text{Mean Rating Index} < 3.5$
Disagree	$1.5 \leq \text{Mean Rating Index} < 2.5$
Strongly Disagree	$1.0 \leq \text{Mean Rating Index} < 1.5$

Pearson correlation coefficients were used to examine the strength of association between the study variables. The findings of the study were also analysed for consistence between the different categories of respondents by comparing their segregated means responses using either

the student t-test or the ANOVA. The Statistical Package for Social Scientists (SPSS) and Microsoft Excel were used for the analysis of data.

## **CHAPTER FOUR**

### **PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS**

#### **4.0 Introduction**

The study sought to establish relationships between project planning (independent variable) and project performance (dependent variable) for the Health Centre IV Programme in Kabale District. Project planning was considered in respect of project scope, project estimation and project work scheduling while project success was measured in terms of timeliness, cost efficiency and functionality of established facilities. To achieve research objectives, a survey was carried out in the district on planning and performance of the programme by collecting data from persons involved in planning for health service.

In this section, the data collected is presented, analysed and interpreted to derive meaning from it. The chapter is structured in five sections. Section 4.1 focuses on the general characteristics of respondents of the study. In Section 4.2 the relationships between project scope definition and project performance are presented while section 4.3 is a review of the relationship between estimation and performance of the Health Centre IV programme. In Section 4.4, the results on the relationships between project work scheduling and performance are presented. Lastly, Section 4.5 gives a summary of the survey results.

## **4.1 General Characteristics of the Study Elements**

Under the general characteristics section of the questionnaire, information was required about the nature of respondents from whom data was collected. The data obtained is presented in this section. It includes the response rate, categorisation of respondents, education levels, gender and longevity of service in the district.

### **4.1.1 Response rate**

Out of the 26 questionnaire issued, 24 were completed and returned. This represents a response rate of 92%. According to Survey Monkey (n.d), an American specialised web-survey company, a response rate of more than 80% is good and satisfactory to give representative results. Fincham (2008) also affirms this supposition. The response rate of 92% attained in this survey was therefore considered satisfactory to yield representative results.

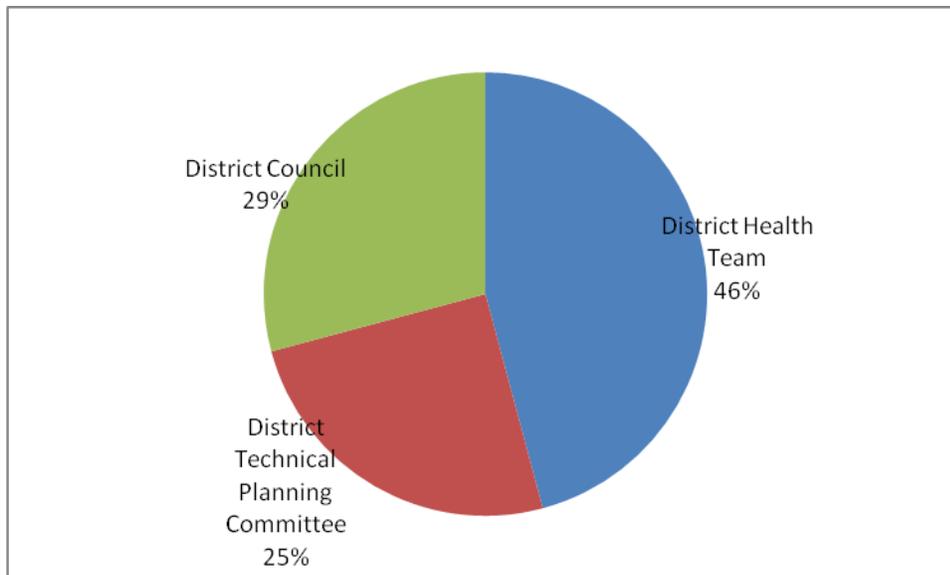
### **4.1.2 Categorisation of Respondents**

Respondents were asked to indicate their primary employment categorisation of the three major participants in the planning process in the district. The three categories identified were the District Council, the District Technical Planning Committee and the District Health Team. The requirement for respondents to indicate their categorisation was intended to ensure equitable inclusiveness as well as enabling comparison of responses by the three participant categories of respondents. The results are indicated in Table 3 and Figure 2.

**Table 3: Response Rate by Category of Respondents**

Category of Respondent	Sample	Response	Response Rate
District Health Team	11	11	100%
District Technical Planning Committee	7	6	86%
District Council ( <i>Standing Committee on Health</i> )	8	7	87.5%

**Source:** Primary survey data



**Figure 2: Distribution of Respondents Category**

The results in Table 3 show that response rate for all categories of respondents were above 80%. This means that the response rate was satisfactorily to yield representative results for all the categories of respondents of the survey. Figure 2 on the other hand shows that close to 50% of the respondents were members of the District Health Team. This category, however, also had a proportionately high number of elements in the sample, and therefore was unlikely to affect the

study results. The composition of respondents was therefore considered to be sufficiently representative of the target population.

#### 4.1.3 Education Qualification of Respondents

Respondents were requested to indicate their highest level of education. The requirement was intended to determine their capability to comprehend issues being investigated and appropriately answer the questionnaire. The Results are summarised Table 4.

**Table 4: Highest Academic Qualification of Respondents**

<b>Highest Qualification Attained</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Primary School Education	0	0	0
Secondary School Education	0	0	0
Tertiary Education	24	100.0	100.0
<b>Total</b>	<b>24</b>	<b>100.0</b>	

*Source:* Primary survey data

Table 4 shows that all the 24 respondents had obtained tertiary education. This means that respondents were sufficiently literate to participate in the study.

#### 4.1.4 Longevity of Service in the District of Respondents

Respondents were required to indicate the duration of their service in the district. This was intended to establish the level of exposure of respondents to the district programmes and, in

particular, the health centre IV programme so as to be able to give reliable information for the study. Table 5 summarises the survey data on longevity of service in the district of respondents.

**Table 5: Longevity of Service of Respondents in the District**

<b>Period of Services in District</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Less than a year	1	4.2	4.2
2-4 years	3	12.5	16.7
5-9 years	9	37.5	54.2
10 or more years	11	45.8	100.0
<b>Total</b>	<b>24</b>	<b>100.0</b>	

*Source:* Primary survey data

The result in Table 5 shows that the majority 83.3% (20 out of 24) of respondents had served in the district for at least five years and about 46% (11 out of 24) of them had served for longer than 10 years. This means that respondents were adequately exposed to the district programmes and therefore likely to give reliable information about the Health Centre IV programme.

#### **4.1.5 Gender of Respondents**

The respondents were asked to indicate their gender. The requirement was based on the postulation alluded to by Cusworth and Franks (1993) that effective planning should involve participation of beneficiaries. Since the Health Centre IV programme targeted to improve maternal health, it would have been desirable that females participate in the planning process. The results on the gender of respondents are summarised Table 6.

**Table 6: Gender of Respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Female	4	16.7	16.7
Male	20	83.3	100.0
Total	24	100.0	

*Source:* Survey primary data

The results in Table 6 indicate that only 16.7% of the respondents were female implying that there was limited participation of the direct beneficiary gender. The low involvement of females, therefore, could have affected the effectiveness of the planning process.

## **4.2 Project Scope Definition and Performance of the HC IV Programme**

In this section, the analysis and derived meaning of the responses on project scope definition and performance of the health centre IV programme, and the relationships between them are presented.

### **4.2.1 Project scope definition for the Health Centre IV Programme**

The study sought to evaluate the state of project scope definition for the Health Centre IV programme on seven attributes that were included in the questionnaire. The responses of the survey are summarised in Table 7.

**Table 7: Summary Responses on Project Scope Definition**

	Attribute	Frequencies and Percentages by Rating Scale Score					Mean Rating Index	Standard Deviation	Summary Result of Majority Response
		1	2	3	4	5			
1	Objective of HCIV Programme was clearly defined	0 0%	3 12.5%	0 0%	12 50%	9 37.5%	4.13	0.95	Agree
2	Services to be offered by HCIVs were clearly defined	0 0%	1 4.2%	0 0%	13 54.2%	10 41.7%	4.33	0.70	Agree
3	All the necessary building facilities at each health centre were clearly defined	0 0%	3 12.5%	5 20.8%	11 45.8%	5 20.8%	3.75	0.94	Agree
4	The project duration for establishing of HC IVs was clearly defined	4 16.7%	10 41.7%	8 33.3%	2 8.3%	0 0%	2.33	0.87	Disagree
5	All resources for a functional HCIV were included in the programme	4 16.7%	14 58.3%	1 4.2%	5 20.8%	0 0%	2.29	1.00	Disagree
6	All resources were identified prior to commencement of work	6 25%	16 66.7%	2 8.3%	0 0%	0 0%	1.83	0.57	Disagree
7	The total funding for establishing HC IVs was clearly defined	7 29.2%	11 45.8%	5 20.8%	1 4.2%	0 0%	2.00	0.83	Disagree
	<b>Aggregated Rating Index</b>						<b>2.95</b>	<b>0.47</b>	<b>Disagree</b>

**Key:** Strongly Disagree = “1”; Disagree = “2”; Not Sure = “3”; Agree = “4”; Strongly Agree = “5”

The results in Table 7 show that the majority of respondents agreed (“Strongly Agree” and “Agree”) on three of the attributes with Mean Rating Index (MRI) values greater than 3.5. The attributes were: The objective of the programme was clear (87.5% agree; MRI = 4.13>3.5); Services to be offered by the health centres were clearly defined (95.9% agree; MRI = 4.33 >3.5) and the necessary building facilities to be provided at each facility were clearly defined (66.6%

agree; MRI = 3.75 >3.5). This result implies that project scope definition was satisfactory on these three attributes.

On the other hand, most of the respondents expressed disagreement on the majority (4 out of 7) attributes of scope definition yielding Mean Rating Indexes (MRI) less than 2.5. The results show that 58% (MRI = 2.33) of respondents disagreed with project duration being clearly defined while 75% disagreed (MRI = 2.29) with inclusion of all the required resources in the programme and 91.7% did not agree (MRI = 1.83) that identification of the required resources was done prior to commencement. Majority (75%) of respondents disagreed (MRI = 2.00) to the statement that total financing being clearly defined. This means that these four attributes of scope definition were unsatisfactorily carried out.

An ANOVA test was carried out to examine whether there were significant statistical differences between the responses of the three categories of respondents. The results of the ANOVA test are presented in Table 8.

**Table 8: Comparison of means against categories of respondents**

Attribute		Sum of Squares	df	Mean Square	F	Sig.
Objective of the HCIV programme was clearly defined	Between Groups	3.707	2	1.854	2.301	.125
	Within Groups	16.918	21	.806		
Services to be offered by HC IVs were clearly defined	Between Groups	2.058	2	1.029	2.330	.122
	Within Groups	9.275	21	.442		
All the necessary building facilities at each health centre were clearly defined	Between Groups	2.829	2	1.415	1.681	.210
	Within Groups	17.671	21	.841		
The target project duration for establishment of HC IVs was clearly defined	Between Groups	.961	2	.481	.616	.549
	Within Groups	16.372	21	.780		
All the resources for a functional HC IV were included in the programme	Between Groups	1.969	2	.985	.985	.390
	Within Groups	20.989	21	.999		
All resources were identified prior to commencement of implementation	Between Groups	1.149	2	.575	1.952	.167
	Within Groups	6.184	21	.294		
The total funding for establishment of HC IVs in the district was clearly defined	Between Groups	3.740	2	1.870	3.203	.061
	Within Groups	12.260	21	.584		

The results in Table 8 show that there were no statistically significant [ $p>0.05$ ] differences between the mean responses of the three categories of respondents on any of the study elements of scope definition. This means that the results obtained from the survey and presented in Table 7 were typically the same and therefore presented the views of all categories of respondents.

Overall, project scope definition was poorly carried out as most (4 out of 7) of the core attributes of project scope definition were unsatisfactory. The overall aggregated mean rating index of 2.95 (<3.5) affirms that scope definition did not meet the expectation of respondents. The

interviewed top officials of the district Health Team indicated that the Health Centre IVs were like “white-elephants” due to lack of essential components.

#### 4.2.2 Performance of the Health Centre IV Programme

In this study, performance of the Health Centre IV Programme was measured on the basis of three core project success factors namely; timeliness of completion of project components [works, equipment and recruitment of staff], completion of works within the allocated funds and functionality of the completed facilities. The summary results are presented in Table 9.

**Table 9: Summary of responses on Performance of the HC IV programme**

	Attribute	Frequencies and Percentages by Rating Scale Score					Mean Rating Index	Standard Deviation	Summary Result of Majority Response
		1	2	3	4	5			
1	Construction works were completed in time	5 20.8%	17 70.8%	1 4.2%	1 4.2%	0 0%	1.92	0.55	Rarely
2	Equipment was installed immediately after completion of building works	7 29.2%	16 66.7%	0 0%	1 4.2%	0 0%	1.79	0.56	Rarely
3	Construction works were completed within budget initially allocated	4 16.7%	12 50%	6 25%	2 8.3%	0 0%	2.25	0.85	Rarely
4	HC IVs are optimally offering emergency obstetrics care	11 45.8%	13 54.2%	0 0%	0 0%	0 0%	1.54	0.51	Rarely
5	Core staff were promptly recruited after establishment of HC IVs	7 29.2%	17 70.8%	0 0%	0 0%	0 0%	1.71	0.46	Rarely
	<b>Aggregated Rating Index</b>						<b>1.84</b>	<b>0.37</b>	<b>Rarely</b>

**Key:** *Never = “1”; Rarely = “2”; Do not know = “3”; Often = “4”; Always = “5”*

Results in Table 9 showed that majority of respondents rated the five attributes investigated as either never or rarely achieved yielding mean rating indexes of less than 2.5 in all cases. Up to 91.6% of respondents indicated that construction works were either never (20.8%) or rarely (70.8%) completed on time while 95.9% of respondents indicated that equipment installation was rarely (66.7%) or never (29.2%) done immediately after completion of the building works. The results also indicated that HC IVs never (45.8%) or rarely (54.2%) optimally offered the intended services just as recruitment of staff promptly was never (29.2%) or rarely (70.8%) achieved. Performance of the Health Centre IV Programme was therefore overly rated as poor.

In the face to face interviews, the District Health Officer and Health Sub-District In-Charges indicated that none of the seven (7) Health Centre IVs was offering the intended emergency obstetric care because they all lacked doctors and did not have funds for operational expenses. It was also observed that there was a scope creep of 40% when the number of Health Centre IV was increased from the five stated in the concept paper to seven as indicated in Table 10.

**Table 10: Health Centre IVs in Kabale District**

Health Sub-District	Health Centre IV	
	Original Proposal	Actual
Ndorwa County East	Maziba	Maziba
Ndorwa County West	Rubaya	Rubaya
Rubanda County East	Hamurwa	Hamurwa
Rubanda County West	Muko	Muko
Rukiga County	Kamwezi	Kamwezi and Mparo
Kabale Municipality	-	Kamukira

*Source: Health Facilities Inventory (2012) and the Health Sub-District in Uganda – Concept Paper (1999)*

In order to determine consistence in responses, an ANOVA test was carried out to compare response MRI by the three categories of respondents. The results are illustrated in Table 11.

**Table 11: Comparison of Means for offering intended Services**

Attribute		Sum of Squares	df	Mean Square	F	Sig.
Construction works were completed in time	Between Groups	.734	2	.367	.847	.443
	Within Groups	9.100	21	.433		
Equipment was installed immediately after completion of building works	Between Groups	.443	2	.222	.489	.620
	Within Groups	9.515	21	.453		
Construction works were completed within budget initially allocated	Between Groups	.128	2	.064	.082	.922
	Within Groups	16.372	21	.780		
HC IVs are optimally offering emergency obstetrics care	Between Groups	1.586	2	.793	3.809	<b>.039</b>
	Within Groups	4.372	21	.208		
Core staff were promptly recruited after establishment of HC IVs	Between Groups	.015	2	.007	.031	.969
	Within Groups	4.944	21	.235		

The results in Table 11 revealed that there was only a significant difference ( $p=0.039<0.05$ ) at 95% confidence level in the responses on Health Centre IVs optimally offering the intended services. Further ANOVA analysis using Tukey *post-hoc* test of multiple comparisons to determine the particular category of respondents that presented significant differences in responses yielded results presented in Table 12.

**Table 12: Multiple Comparison of Means for optimally Offering Care**

Dependent Variable	(I) Designation of respondent	(J) Designation of respondent	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
HC IVs are optimally offering emergency obstetrics care	Member of District Standing Committee on Health	Member of the District Health Team	.584*	.221	<b>.038</b>	.03	1.14
		Member of the District Technical Planning Committee	.190	.254	.737	-.45	.83
	Member of the District Health Team	Member of District Standing Committee on Health	-.584*	.221	<b>.038</b>	-1.14	-.03
		Member of the District Technical Planning Committee	-.394	.232	.228	-.98	.19
	Member of the District Technical Planning Committee	Member of District Standing Committee on Health	-.190	.254	.737	-.83	.45
		Member of the District Health Team	.394	.232	.228	-.19	.98

\*. The mean difference is significant at the 0.05 level

The results in Table 12 showed that there were statistically significant ( $p=0.038 < 0.05$ ) differences between mean responses of the District Health Team (DHT) and members of the District Council on the Standing Committee for Health. Table 13 shows the mean rating indices of the two categories.

**Table 13: Mean Responses by DHT and District Council Members**

<b>Designation of Respondent</b>	<b>Mean Rating Index</b>	<b>N</b>	<b>Standard Deviation</b>
Member of District Standing Committee on Health	1.86	7	.378
Member of the District Health Team	1.27	11	.467

The mean responses of the two categories of respondents in Table 13 demonstrated the wide differences. The District Health Team (DHT) mean rating index of 1.27 indicated in Table 13 suggests that the HC IVs had never offered obstetric care whereas the rating of 1.87 by the members of the District Council means that the HC IV offered the services but rarely.

The difference could be attributed to variations in understanding and interpretations of “optimal delivery” of services by the two categories. The DHT’s being technical, could have had specific and clear understanding of the services to be offered and therefore had more critical assessment of the statement compared to the District Council Members who could have had only a general idea of the services offered. Furthermore, the District Council members, being politically responsible and accountable for service delivery to the populace, could have had reservations to stating that the services were not delivered because this could be considered as a failure on the Government they support. Nonetheless the responses by both categories rated performance as unsatisfactory (MRI <2.5). The difference in means therefore did not have substantial effect on the aggregated result. Performance of the programme was overly unsatisfactory.

### 4.2.3 Relationship between Scope Definition and Performance

The first objective of the study was to find out relationship between scope definition and performance of the Health Centre IV programme. The Pearson Correlation coefficient was used to determine the relationship. The test results are presented in Table 14.

**Table 14: Pearson correlation between Scope Definition and Performance**

Attribute		Scope Definition	Performance
Scope Definition	Pearson Correlation	1	.363
	Sig. (2-tailed)		.081
	N	24	24
Performance	Pearson Correlation	.363	1
	Sig. (2-tailed)	.081	
	N	24	24

The results in Table 13 show that there was a weak positive relationship [correlation coefficient,  $r = 0.363$ ;  $p = 0.081 > 0.05$ ] between scope definition and performance of the health centre IV programme. The relationship, however, was not significant at 95% confidence interval. The result not being significant at 95% confidence implies that there is a possibility that the observed relationship could be a result of chance rather than reality but could still provides a pointer to positive linkages.

### 4.3 Project Estimating and Performance of HC IV Programme

The study sought to evaluate key project estimation processes and their relationship with the performance of the Health Centre IV Programme.

### 4.3.1 Project Estimating for the HC IV Programme in Kabale district

In this study project estimating was measured on six elements believed to be essential factors for effective project planning. The result of responses is summarized in Table 15.

**Table 15: Summary of responses on estimation for the HC IV Programme**

	Attribute	Frequencies and Percentages by Rating Scale Score					Mean Rating Index	Standard Deviation	Summary Result of Majority Response
		1	2	3	4	5			
1	Cost estimates for HC IVs were adequately accurate	7 29.2%	16 66.7%	1 4.2%	0 0%	0 0%	1.75	0.53	Disagree
2	Funds allocated for operational expenses were adequate	15 62.5%	9 37.5%	0 0%	0 0%	0 0%	1.38	0.50	Disagree
3	Cost estimates were prepared by competent teams	1 4.2%	5 20.8%	15 62.5%	3 12.5%	0 0%	2.83	0.70	Not Sure
4	Cost estimates were based on local conditions	10 41.7%	12 50%	2 8.3%	0 0%	0 0%	1.67	0.64	Disagree
5	The 4-year target period for establishment of HC IVs was adequate	5 20.8%	13 54.2%	4 16.7%	2 8.3%	0 0%	2.12	0.85	Disagree
6	The staffing structure developed is adequate for proper functioning of a HC IV	4 16.7%	6 25%	0 0%	13 54.2%	1 4.2%	3.04	1.30	Not Sure
	<b>Aggregated Rating Index</b>						<b>2.13</b>		<b>Disagree</b>

*Key: Strongly Disagree = "1"; Disagree = "2"; Not Sure = "3"; Agree = "4"; Strongly Agree = "5"*

The results in Table 15 show that majority of respondents disagreed (Strongly Agree and Agree) on: Cost estimates being adequately accurate (95.9%, MRI =1.75); Funds allocated for

operational expenses being adequate (100%, MRI=1.38); Cost estimates being based local conditions (91.7%, MRI=1.67); and target completion period of the programme being adequate (75%, MRI=2.12). This means that project estimation for the programme was unsatisfactory on these aspects.

On the other hand, the results indicated that most (62.5%) of the respondents were not sure that the estimates were prepared by competent teams. During interviews of top district management officials, it was intimated that cost estimates were prepared centrally by the Ministry of Health and were simply imposed on the district without consideration of the district's local economic and physical environment factors. The "not sure" response on whether the teams that prepared the cost estimates were competent could have been due to lack of knowledge of competencies of the persons who prepared the cost estimates, since they were not known to respondents.

Additionally, the results indicated an unclear situation with an almost equal number of respondents agreeing (14) and those that disagreed (10) on staffing structure developed being adequate for the proper functioning of the Health Centre IVs. It was discovered during interviews that respondents could have had differing understanding of "staffing Structure". While the intended meaning was with regard to the organization structures as established, some interpreted it to mean the positions filled. This ambiguity was not discovered during the pretesting but could have contributed to the inconsistent response on the statement.

The overall aggregated MRI for estimation was 2.13 <2.50 which translates in a "disagree" rating means that estimation was overly unsatisfactory.

### 4.3.2 Relationship between estimating and performance

Table 16 summarises the Pearson Correlation coefficients computed to determine the relationship between estimation and performance of the Health Centre IV programme.

**Table 16: Pearson Correlation between Estimation and Performance**

		Estimation	Performance
Estimation	Pearson Correlation	1	.597**
	Sig. (2-tailed)		.002
	N	24	24
Performance	Pearson Correlation	.597**	1
	Sig. (2-tailed)	.002	
	N	24	24

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The results in Table 16 show that there was a moderately strong significant positive correlation ( $r=0.6$ ;  $p=.002<0.05$ ) between the performance of the Health Centre IV programme and estimation at 99% confidence interval. This suggests that the poor performance of the programme was closely related to the unsatisfactory estimates.

### 4.4 Project Scheduling and Performance of HCV Programme

In this section data on scheduling processes are presented and analysed as well as examining the relationships between scheduling and performance.

#### 4.4.1 Project Scheduling for the HC IV Programme in Kabale District

The scheduling of work activities and resources for the Health Centre IV programme was assessed on seven key factors. The responses are summarised in Table 17.

**Table 17: Summary of Responses on Scheduling for the HC IV Programme**

	Attribute	Frequencies and Percentages by Rating Scale Score					Mean Rating Index	Standard Deviation	Summary Result of Majority Response
		1	2	3	4	5			
1	There were clear timelines for completion of construction work at Health Centre IVs	3 12.5%	7 29.2%	4 16.7%	10 41.6%	0 0%	2.88	1.12	Disagree
2	There were clear timelines for completion of equipment installation	4 16.7%	10 41.6%	6 25%	4 16.7%	0 0%	2.42	0.97	Disagree
3	There were clear timelines for completion of recruitment of staff	6 25%	12 50%	1 4.2%	5 20.8%	0 0%	2.21	1.06	Disagree
4	The timelines were realistic in relation to the available resources	5 20.8%	10 41.6%	8 33.4%	1 4.2%	0 0%	2.21	0.83	Disagree
5	Assigning responsibility of management of construction works to the district was appropriate	1 4.2%	13 54.2%	1 4.2%	9 37.5%	0 0%	2.75	1.03	Disagree
6	Assigning responsibility of procurement of equipment to Ministry of Health was appropriate	0 0%	0 0%	4 16.7%	17 70.8%	3 12.5%	3.96	0.55	Agree
7	Assigning responsibility of recruitment of staff by the district was appropriate	1 4.2%	5 20.8%	2 8.3%	14 58.3%	2 8.3%	3.46	1.06	Agree
	<b>Aggregated Mean Rating Index</b>						<b>2.83</b>		

**Key:** Strongly Disagree = “1”; Disagree = “2”; Not Sure = “3”; Agree = “4”; Strongly Agree = “5”

The results in Table 17 show that respondents disagreed (MRI <3) with most (5 out of 7) of the key positive attributes of effective scheduling being achieved on the Health Centre IV Programme. Up to 58.3% and 75% of respondents disagreed with there being clear timelines for

installation of equipment and for recruitment of staff respectively while 62.4% disagreed to timelines being realistic to match the available resources. About 58.4% of the respondents disagreed with the statement that assigning responsibility for management of construction works to the district was appropriate.

The responses on timelines for construction being clear, however, were divided, with about an equal number of respondents agreeing (41.6%) and disagreeing (42.7%) while 16.7% of respondents were neutral. During the interviews it was discovered that the neutral result could have been due to misunderstanding of the statement in the questionnaire. Some respondents understood timeline to be the individual construction contract periods for each site yet the statement was intended to mean the overall programme timelines.

Respondents only agreed to two positive attributes of effective scheduling being achieved namely: assigning of responsibility for recruitment of staff to the district being appropriate (66.6% agree; MRI = 3.46) and for procurement of equipment to the Ministry of Health (83.3% agree; MRI = 3.96). Overall, the results yielded an aggregated Mean Rating Index of 2.83 (< 3) indicating that respondents generally disagreed with scheduling being satisfactory.

During the interviews, officials of the District Health Team intimated that the district did not have the capacity to oversee construction of specialised medical facilities like operating theatres. They also indicated the poor scheduling of activities of the programme made the project facilities seem like white elephants due to lack of essential components like staff.

An ANOVA test to examine consistence of responses by the three categories of respondents, yielded results summarised in Table 18.

**Table 18: Comparison of Means for Scheduling between Categories of Respondents**

Attribute		Sum of Squares	df	Mean Square	F	Sig.
There were clear timelines for completion of Construction works	Between Groups	.443	2	.222	.165	.849
	Within Groups	28.182	21	1.342		
There were clear timelines for equipment installation	Between Groups	.240	2	.120	.117	.890
	Within Groups	21.593	21	1.028		
There were clear timelines for recruitment of staff	Between Groups	4.859	2	2.429	2.418	.113
	Within Groups	21.100	21	1.005		
The timelines were realistic in relation to the available resources	Between Groups	1.151	2	.575	.816	.456
	Within Groups	14.807	21	.705		
Assigning responsibility for managing construction works to the district was appropriate	Between Groups	3.816	2	1.908	1.937	.169
	Within Groups	20.684	21	.985		
Assigning responsibility for procurement of equipment to MOH was appropriate	Between Groups	.125	2	.062	.192	.827
	Within Groups	6.833	21	.325		
Assigning responsibility for recruitment of staff to the district was appropriate	Between Groups	3.774	2	1.887	1.786	.192
	Within Groups	22.184	21	1.056		

The ANOVA test did not reveal any statistically significant differences in means of responses ( $p > 0.05$  in all cases) by the three categories of respondents. This implies that all the categories of respondents were consistent with the overall rating that scheduling for the Health Centre IV Programme was unsatisfactory.

#### 4.4.2 Relationship between Scheduling and Performance

The Relationship between scheduling and performance of the Health Centre IV programme was examined using the Pearson Correlation between the two variables. The results are presented in Table 19.

**Table 19: Pearson Correlation between Scheduling and Performance**

Attribute		Scheduling	Performance
Scheduling	Pearson Correlation	1	.031
	Sig. (2-tailed)		.885
	N	24	24
Performance	Pearson Correlation	.031	1
	Sig. (2-tailed)	.885	
	N	24	24

The results in Table 19 show that there was a very weak (tending to zero) positive correlation ( $r=0.031$ ;  $p=.89>0.05$ ) between scheduling and performance of the Health Centre IV Project. The correlation was also not significant at 95% confidence interval. This result means that the study finding did not reveal a worthwhile relationship between scheduling and the performance of the Health Centre IV programme in Kabale district.

#### 4.5 Aggregated relationship between Planning and Project Performance

The overall objective of the study was to find out the relationship between planning and performance of the Health Centre IV Programme in Kabale District. The results of the survey on the relationship between planning and performance are summarised in Tables 20 and 21.

**Table 20: Summary Results of Planning and Performance for HC IV Programme**

Attribute	Mean	Std. Deviation
Scope	2.95	.474
Estimation	2.13	.437
Scheduling	2.84	.387
<b>Aggregated mean for Planning</b>	<b>2.64</b>	
Timeliness	1.80	.471
Cost Efficiency	2.25	.847
Functionality	1.54	.509
<b>Aggregated mean for Performance</b>	<b>1.84</b>	

**Table 21: Relationship between Planning and Performance of HC IV Programme**

Variable		Planning	Performance
Planning	Pearson Correlation	1	.467*
	Sig. (2-tailed)		.021
Performance	Pearson Correlation	.467*	1
	Sig. (2-tailed)	.021	

\*. Correlation is significant at the 0.05 level (2-tailed).

The overall result in Table 20 of MRI =2.64 <3.0 indicate that planning was unsatisfactory and that Performance with a MRI = 1.8<2.5 was overly poor. The overall correlation in Table 21 of r=0.47; p=0.021< 0.05 indicate that there was significant moderately strong positive correlation between planning and the performance of the Health Centre IV Programme. This correlation coefficient of 0.47 gives a coefficient of determination of 0.22 which implies that up to 22% (r<sup>2</sup>)

of variations in performance of the Programme in Kabale District can be explained by variations in planning processes.

## **CHAPTER FIVE**

### **DISCUSSION OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.0 Introduction**

The overall objective of this survey study was to find the relationship between planning and performance of the Health Centre IV Programme in Kabale District. The study was motivated by the prevailing poor performance of the Programme Countrywide. Planning was the independent variable investigated in respect of project scope definition, project estimating and project scheduling. Performance was the independent variable measured in terms of timeliness of completion of project components, cost efficiency with regard to completion within budget as well as functionality of the completed facilities. The study population consisted of officials involved in the planning process at the district comprising of District Councillors, members of the District Health Technical Team and the District Technical Planning Committee.

Overall, there was a significant moderately strong positive correlation ( $r=0.47$ ;  $p=0.021 < 0.05$ ) between planning and the performance of the Health Centre IV Programme implying that there was a relationship between planning and performance. The result also means that 22% (*Coefficient of determination,  $r^2$* ) of variations in performance of the Health Centre IV Programme in Kabale District can be explained by intricacies of planning processes.

In this section, the major findings of the study in respect of each of the three specific objectives are discussed, and the derived conclusions and recommendations stated.

## **5.1 Summary of Major Findings**

### **a. Performance of the Health Centre IV Programme**

The study established that performance of the Health Centre IV programme in Kabale District was overly poor. Construction works were not completed on time and not within budget. Equipment was never installed in time nor was staff recruited in time. Moreover, even when the programme components were completed, the Health Centre IVs were not delivering the intended emergency obstetric care.

### **b. Scope definition**

Much as the objective and services to be offered by the Health Centre IV Programme were clearly defined, scope definition was not satisfactory. The project implementation duration was not clearly defined and all the resources required to deliver the project were not identified and were not included in the programme. The total financing for the project was also not clearly defined. Scoping of the project was done at the Ministry of Health without involving the district.

The study established that there was a weak positive relationship [correlation coefficient,  $r = 0.363$ ;  $p = 0.081 > 0.05$ ] between project scope definition and performance of the health centre IV programme. The relationship however, was not significant at 95% confidence interval.

### **c. Estimating**

Estimating for the Health Centre IV programme was overly unsatisfactory. Costs for programme activities were underestimated and not based on the local conditions. Funds allocated for operational expenses and the target completion period of the programme were overly inadequate.

There was a moderately strong significant positive correlation ( $r=0.6$ ;  $p=.002<0.05$ ) between the performance of the Health Centre IV programme and estimation at 99% confidence interval. The study therefore established that there was a linkage between project estimating and performance of the Health Centre IV Programme.

### **d. Scheduling**

It was established that scheduling for the Health Centre IV Programme in Kabale District was unsatisfactory. Timelines for recruitment of staff and installation of equipment were neither clear nor were the set crude timelines realistic. Responsibility for managing of construction works was inappropriately assigned to the district. Scheduling was, however, satisfactory on assigning of responsibility for procurement of equipment to Ministry of Health and on assigning of responsibility of recruitment of staff to the district.

There was a very weak (tending to zero) and insignificant positive correlation ( $r=0.031$ ;  $p=.89>0.05$ ) between scheduling and performance of the Health Centre IV Project indicating that there was no worthwhile relationship between scheduling and the performance of the Health Centre IV programme in Kabale district.

## 5.2 Project Scope Definition and Project Performance

The study sought to determine the relationships between project scope definition and the performance of the Health Centre IV Programme in Kabale District. Although Fox & Waldt (2007) indicate that scope definition was the one major factor linked to performance of projects, the weak and not significant correlation obtained in the study did not support this position. It seems the near neutral (not sure) rating (MRI=2.95) of scope definition by respondents in the study could have contributed to the weakened correlation. The results in Tables 7 and 9 indeed showed that dispersion of responses for scope definition and performance differed widely. The Standard Deviation (SD) for Scope Definition was high ranging between 0.8 and 1.00 while responses for performance had low variations with SD at about 0.5. The outcome of the study for scope definition was much less consistent. The wide difference in dispersion of responses between the two variables could have contributed to the lessened significance of the correlation between the two variables.

However, existence of a positive correlation despite fairly good outcome on some of the elements of scope definition demonstrated that the poor performance could bear some association with scope definition. The failure to identify and include all resources necessary for the project implementation was discovered to have been, as suggested by people interviewed, a result of the political bearing that the programme had, the failure to involve the district in the initial structuring of the project and the rush to start the project with limited time for consultations and evaluation. Consequently, the total financial requirements could not be fully defined. Additionally, the research seems to have confirmed the supposition by Cleland and Ireland (2007) that poor scope definition results in scope creep. The 40% scope creep on the

programme in Kabale District, when the number of Health Centre IVs was increased from 5 to 7, could be associated with the mediocre level of Scope Definition.

### **5.3 Estimating and Project Performance**

The study intended to examine the relationships between project estimation and the performance of the Health Centre IV Programme in Kabale district. The findings that the poor estimations for the programme had a strong relationship with performance of the programme, was in total agreement with Mochal (2003)'s argument that when project requirements are underestimated, the project would most likely fail to perform. Hence, effort to revamp the performance of the Health Centre IV programme could require deliberate strategies to review the estimations and budget allocation for the programme activities.

The cost and time estimates for construction and operational expenses were discovered to have been grossly underestimated and budget allocations inadequate. As alluded to by Gray and Larson (2008), the inaccuracy of the cost estimates could further have been heightened by the reported failure to factor in the local conditions in the estimating process as well as not involving the beneficiaries, that is, Kabale district. The cost overruns obtaining on the programme were therefore inevitable since the initial project estimates were unrealistically low.

### **5.4 Scheduling and Project Performance**

The third specific objective of the study was to find out the relationship between project scheduling and the performance of the Health Centre IV programme in Kabale district. While

Cleland & Ireland (2007) and others strongly link project success with effective project scheduling and vice versa, the study results revealed that there was a very weak and statistically insignificant association between scheduling and performance. This meant that there was no worthwhile evidence that links project scheduling with project performance.

The limited association between scheduling and performance could be attributed to the almost neutral (MRI = 2.83) response outcome on scheduling. A number of elements of scheduling were done well and others poorly while responses to one were not consistent. That there was still a weak correlation even under these near neutral circumstances suggests that the weak association realised in the study need not be ignored. Consequently, although the study did not support rejection of the null hypothesis, the unsatisfactory scheduling activities identified by the study ought to be reviewed if programme success is to be realised.

## **5.5 Conclusions**

### **5.5.1 General**

The study set out to evaluate the planning processes for the Health Centre IV programme and to establish relationships between planning and the performance of the programme in Kabale district. Overall, the survey revealed that there were lapses in planning and that there was a moderately strong positive significant correlation ( $r=0.47$ ;  $p=0.021 < 0.05$ ) between Planning and the performance of the programme. This result implies that about 22% of variations in performance of the Programme could be related to variations in the planning processes. The

study also established that political influence negatively affected performance of the programme. Conclusions for each of the three objectives of the study are presented in the following sections.

### **5.5.2 Scope definition and Performance of the Health Centre IV (HC IV) Programme**

The study established that scope definition for the HC IV Programme in Kabale District was unsatisfactory. The projected programme duration was not clearly defined and all the required resources were not identified from the start and were not included in the programme. Furthermore, the total financing was not clearly defined. There was a weak positive relationship [correlation coefficient,  $r = 0.363$ ;  $p = 0.081 > 0.05$ ] between scope definition and performance of the HC IV programme though the relationship was not significant at 95% confidence interval. Because the relationship was not significant at 95% confidence level, the study findings supported the null hypotheses that there was no relationship between the performance and Project Scope definition. Nonetheless, the positive correlation is caution that project performance could be related to the scope definition and therefore ought to be taken seriously.

### **5.5.3 Estimating and Performance of the Health Centre IV Programme**

The study established that project estimating for the HC IV Programme was overly poor. Cost estimates were neither adequately accurate nor based on local conditions, and funds allocated for operational expenses were not adequate. There was a moderately strong and significant correlation ( $r = 0.6$ ;  $p = 0.002 < 0.05$ ) between project estimating and performance of the HC IV Programme in Kabale District. This study results therefore failed to support the null hypothesis that performance of the programme was related to estimating. The observed poor performance of the HC IV could be closely associated with the observed shortcomings in project estimating.

#### **5.5.4 Scheduling and Performance of the Health Centre IV Programme**

The study established that scheduling for the HC IV Programme in Kabale District was generally unsatisfactory. There were no clear timelines for installation of equipment and recruitment of staff, and the crude timelines set were unrealistic. The programme was started in haste reportedly due to political pressure without sufficient time for preparation. Responsibility of management of the construction works was inappropriately assigned to the district that lacked the technical capacity and experience. Assigning of the responsibility for procurement of equipment and recruitment of staff on the programme to the Ministry of Health and the District respectively, was appropriate. The study however established that there was no worthwhile relationship between scheduling and performance of the Health Centre IV Programme in Kabale district. The study results therefore supported the null hypothesis that there was no relationship between project scheduling and project performance.

### **5.6 Recommendations**

Based on the study findings, the following actions are therefore recommended to revamp the project as well as providing caution for future government programmes.

#### **5.6.1 Project Scoping**

- a. A review should be carried out to determine the optimum number of Health Centre IVs to be functionalised based on the resources available to Government. The Ministry of Health should consider, in consultation with the Kabale district, to review the scope of the

programme with a view of reducing the number of Health Centre IVs if adequate resources cannot be sourced.

- b. Future government programmes should not be started in haste before establishing all the resources required to complete the programme if success is to be realised.

### **5.6.2 Cost Estimates**

- a. Experts in estimating need to be engaged to prepare updated estimates especially for operational expenses so that the completed facilities may function.
- b. Estimates should be prepared in close consultation with the users to ensure that they are appropriate and adaptable to the local conditions of the district.
- c. Efforts should always be made on future government project to prepare detailed and appropriate cost estimates before starting such project to avoid likely failure.

### **5.6.2 Project Scheduling**

- a. Consideration should be made in future construction or improvement of existing specialised facilities at Health Centre IV, to transfer the construction management responsibility to the departments with adequate technical capacity.
- b. A deliberate strategy and schedule for recruitment of staff should be made, otherwise the completed facilities shall remain as “*white elephants*” that they are currently. The option of phasing the functionalization of the health centres so that one or two are handled first could be an option to fit within the resource available.

#### **5.6.4 Further Research**

Following the indication during face-to-face interviews of the study that political intervention negatively affected performance of the Health Centre IV Programme, it is recommended that further study should be carried out to establish the manner in which politics affected performance of the programme. This could then enable a more comprehensive strategy to rejuvenate the programme.

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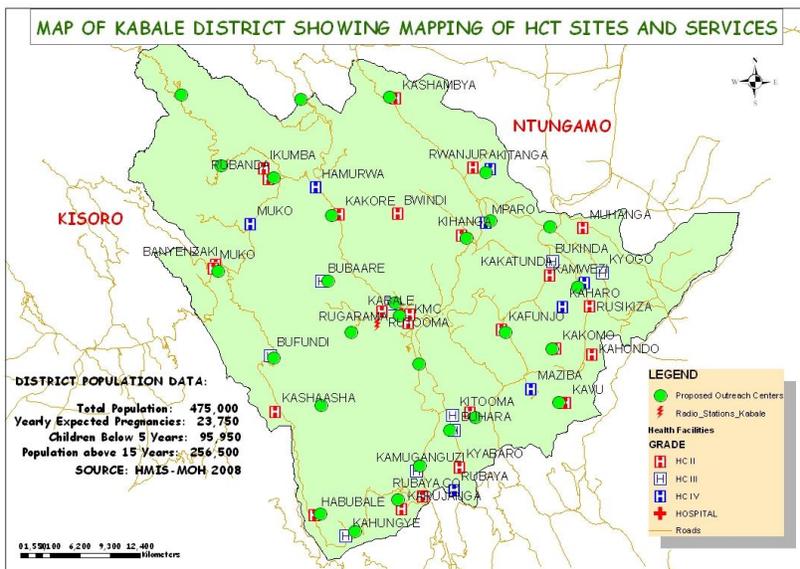
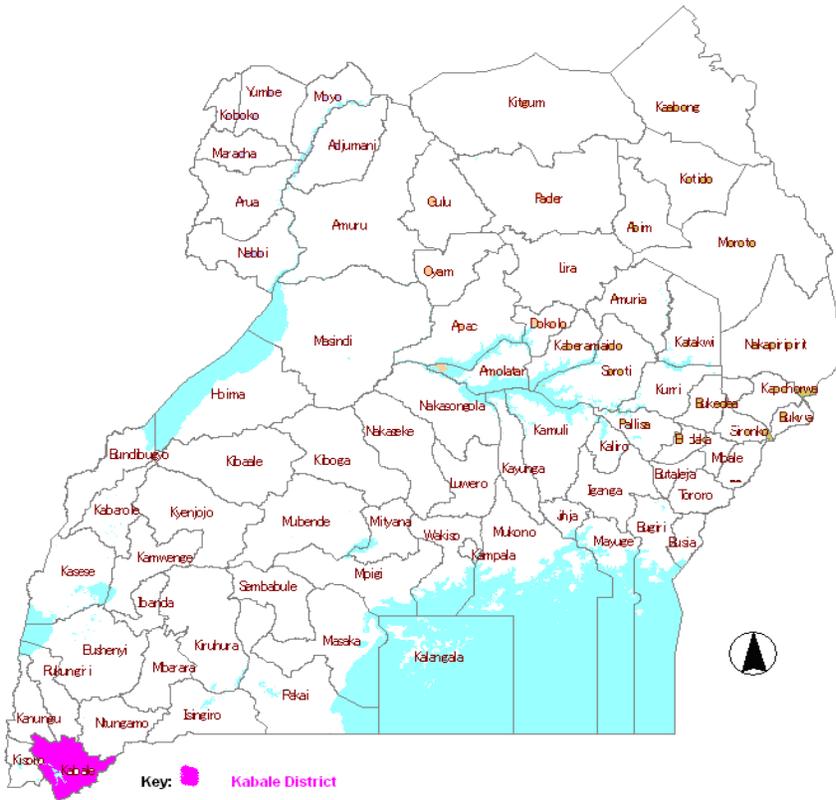
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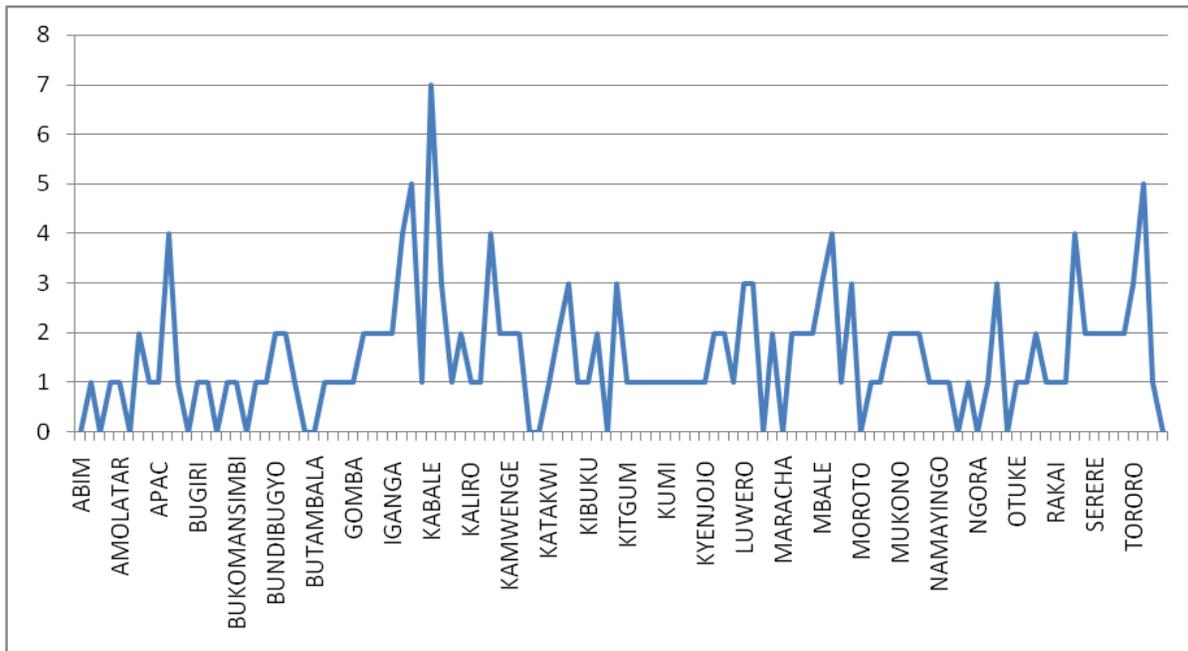
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## **APPENDICES**

# Appendix 1: Location Map of Kabale District in Uganda



## Appendix 2: Distribution of Health Centre IVs by District



Source: *Health Facilities Inventory, 2006*

### **Appendix 3: Questionnaire**

#### **TO PARTICIPANTS OF THE DISTRICT PLANNING PROCESS FOR HEALTH IN A STUDY ON THE HEALTH CENTRE IV PROGRAMME**

Dear Sir / Madam,

As part of the requirements of being awarded a Master of Management Studies of Uganda Management Institute, I am undertaking research on the Health Centre IV Programme in your district. This questionnaire is designed to gather information on planning processes for and the performance of the programme.

I am seeking for your kind response to the questionnaire. The information is principally required for academic purposes but the findings could be useful towards improving performance of Health Programmes. Your response will be kept confidential.

Thank you very much for your cooperation.

Paul Kaliba

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**Section 1: Background Data on Respondents**

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1.1: Which of the following categories best describes your position in the district? (*Tick one*)

Member of the District Council	
Member of the District Health Team (DHT)	
Member of the District Technical Planning Committee	

1.2: What is your highest Academic Qualification? (*Tick as appropriate*)

(i) Primary School Education	
(ii) Secondary School Education	
(iii) Tertiary Education	

1.3: How long (in years) have you served in the district? (*Tick as appropriate*)

(a) Less a years	<input type="checkbox"/>	(b) 2 - 4 years	<input type="checkbox"/>
(c) 5 – 9 years	<input type="checkbox"/>	(d) 10 or more years	<input type="checkbox"/>

1.4: What is your gender (*tick as appropriate*)

Female	
Male	

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**Section 2: Scope Definition for the Health Centre IV Programme**


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Attribute	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
2.1: The objective of the Health Centre IV Programme was clearly defined					
2.2: The services to be offered by level IV health centres were clearly defined					
2.3: All the building facilities necessary at each health centre were clearly defined					
2.4: The target project duration for the establishment of HC IVs in the district was clearly defined					
2.5: All the resources necessary for a functional Health Centre IV were included in the scope of the programme					
2.6: All the resources were identified prior to commencement of implementation					
2.7: The total funding for establishment of HC IVs in the district was clearly defined					

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**Section 3: Estimation and Budgeting for the Health Centre IV Programme**


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Attribute	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
3.1: The cost estimates for establishment of HC IVs were adequately accurate					
3.2: The funds allocated for operational expenses for HC IVs were adequate					
3.3: Cost estimates for establishing health centre IVs were prepared by competent teams					
3.4: Cost estimates were based on local conditions					
3.5: The national 4-year period intended for establishment of HC IVs was adequate					
3.6: The staffing structure is adequate for proper functioning of a HC IV					

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**Section 4: Work scheduling for the Health Centre IV Programme**


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Attribute	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
4.1 There were clear timelines for completion of construction work at Health Centre IVs					
4.2 There were clear timelines for completion of equipment installation					
4.3 There were clear timelines for completion of recruitment of staff					
4.4 The timelines were realistic in relation to the available resources					
5.5 Assigning responsibility of management of construction works to the district was appropriate					
5.6 Assigning responsibility of procurement of equipment to Ministry of Health was appropriate					
5.7 Assigning responsibility of recruitment of staff by the district was appropriate					

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**Section 5: Performance of the Health Centre IV Programme**


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Attribute	Never	Rarely	Do Not Know	Often	Always
1. Construction works for upgrading the health centres to level four were completed in time					
2. The equipment was installed immediately after the building were completed					
3. The construction works were completed within budget initially allocated by Ministry of Health					
4. The HC IVs are optimally offering emergency maternal health care (caesarean section)					
5. Core staff were promptly recruited after establishment of Health Centre IVs					

**Section 6: Additional Information**

7.1 Do you think there is need to review the Health Centre IV Programme?

Yes  No

If yes, what changes or actions would you recommend?

**Thank You**

## **Appendix 4: Interview Guide**

*This interview guide is in respect of the Health Centre IV Government Programme which was initiated in 1999. The programme was aimed at establishing emergency obstetric care services nearer to the population by providing operating theatres, equipment and staff houses as well as increasing staff at selected health centres, as a strategy to reduce maternal mortality. The programme implementation has taken over 10 years however it has experienced hitches with most of the facilities not functional.*

1. How are Health Centres IVs performing in your district?
2. What do you consider as the major factors affecting performance of HC IVs?
3. How do you rate the initial planning / preparations for the health centre IV Programme?
4. What do you suggest should be done to revamp functionality of HC IVs in your district?

## Appendix 5: Split-Half Reliability Test Results

### a. Reliability Statistics

Cronbach's Alpha	Part 1	Value	.441
		N of Items	13 <sup>a</sup>
	Part 2	Value	.654
		N of Items	12 <sup>b</sup>
	Total N of Items		25
Correlation Between Forms			.729
Spearman-Brown	Equal Length		.843
Coefficient	Unequal Length		.843
Guttman Split-Half Coefficient			.841

- a. The items are: Objective of HCIV programme was clearly defined, Services to be offered by HC IVs were clearly defined, All the necessary building facilities at each health centre were clearly defined, The target project duration for establishment of HC IVs was clearly defined, All the resources for a functional HC IV were included in the programme, All resources were identified prior to commencement of implementation, The total funding for establishment of HC IVs in the district was clearly defined, Cost estimates for HC IVs were adequately accurate, Funds allocated for operational expenses were adequate, Cost estimates were prepared by competent teams, Cost estimates were based on local conditions, The 4-year target period for establishment of HC IVs was adequate, The staffing structure developed is adequate for proper functioning of a HC IV .
- b. The items are: There were clear timelines for completion of Construction works , There were clear timelines for equipment installation, There were clear timelines for recruitment of staff, The timelines were realistic in relation to the available resources, Assigning responsibility for managing construction works to the district was appropriate, Assigning responsibility for procurement of equipment to MOH was appropriate, Assigning responsibility for recruitment of staff to the district was appropriate, Construction works were completed in time, Equipment was installed immediately after completion of building works, Construction works were completed within budget initially allocated, HC IVs are optimally offering emergency obstetrics care, Core staff were promptly recruited after establishment of HC IVs.

## b. Scale Statistics

	Mean	Variance	Std. Deviation	N of Items
Part 1	36.50	15.900	3.987	13 <sup>a</sup>
Part 2	31.00	18.800	4.336	12 <sup>b</sup>
Both Parts	67.50	59.900	7.740	25

- a. The items are: Objective of HCIV programme was clearly defined, Services to be offered by HC IVs were clearly defined, All the necessary building facilities at each health centre were clearly defined, The target project duration for establishment of HC IVs was clearly defined, All the resources for a functional HC IV were included in the programme, All resources were identified prior to commencement of implementation, The total funding for establishment of HC IVs in the district was clearly defined, Cost estimates for HC IVs were adequately accurate, Funds allocated for operational expenses were adequate, Cost estimates were prepared by competent teams, Cost estimates were based on local conditions, The 4-year target period for establishment of HC IVs was adequate, The staffing structure developed is adequate for proper functioning of a HC IV .
- b. The items are: There were clear timelines for completion of Construction works , There were clear timelines for equipment installation, There were clear timelines for recruitment of staff, The timelines were realistic in relation to the available resources, Assigning responsibility for managing construction works to the district was appropriate, Assigning responsibility for procurement of equipment to MOH was appropriate, Assigning responsibility for recruitment of staff to the district was appropriate, Construction works were completed in time, Equipment was installed immediately after completion of building works, Construction works were completed within budget initially allocated, HC IVs are optimally offering emergency obstetrics care, Core staff were promptly recruited after establishment of HC IVs.

## **Appendix 6: Letter of Introduction to Respondents**



# UGANDA MANAGEMENT INSTITUTE

Telephones: 256-41-4259722 /4223748 /4346620  
256-31-2265138 /39 /40  
256-75-2259722

Plot 44-52, Jinja Road  
P.O. Box 20131  
Kampala, Uganda  
Website: <http://www.umi.ac.ug>

Telefax: 256-41-4259581 /314  
E-mail: [admin@umi.ac.ug](mailto:admin@umi.ac.ug)

Your Ref:

Our Ref: G/35

05 March 2012

## TO WHOM IT MAY CONCERN

### MASTERS IN MANAGEMENT STUDIES DEGREE RESEARCH

Mr. Paul Kaliba is a student of the Masters Degree in Management Studies of Uganda Management Institute 23<sup>rd</sup> Intake 2010/2011 specializing in Project Planning and Management, **Reg. Number 10/MMSPPM/23/123.**

The purpose of this letter is to formally request you to allow this participant to access any information in your custody/organisation, which is relevant to his research.

His Research Topic is: ***"The Linkages between Project Planning and Performance of the Health Centre IV Programme in Kabale District in Uganda"***

Benon C. Basheka (PhD)  
HEAD, HIGHER DEGREES DEPARTMENT