AN EVALUATION OF THE WORKING CAPITAL MANAGEMENT PRACTICES IN KENYAN NATIONAL REFERRAL HOSPITALS

BY

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DECLARATION

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

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This research project has been submitted for examination with my approval as the university supervisor.

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DEDICATION

I wish to dedicate this research effort to my sons, Allan and Alex. I also wish to dedicate it to my loving wife Joyce and my parents for their valuable support all through my studying years.

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LIST OF ABBREVIATIONS

AMPATH	Academic Model for the Prevention and Treatment of HIV/AIDS
DHMB'S	District Health Management Boards
FHS	Faculty of Health Sciences
GOK	Government of Kenya
HSOP	Health Sector Overview Paper
KHPF	Kenya Health Sector Policy Framework
KNH	Kenyatta National Hospital
KNHA	Kenya National Health Accounts
MOH	Ministry of Health
MTRH	Moi Teaching and Referral Hospital
NHIF	National Hospital Insurance Fund
NHSSP I	National Health Sector Strategic Plan (2001-2004)
NHSSP II	National Health Sector Strategic Plan (2005-2010)
PEPFAR	USA President's Emergency Programme For Aids Relief
SPSS	Statistical Package for the Social Sciences

ABSTRACT

The purpose of this study is to evaluate the policies in the two national referral hospitals in Kenya in view of the normal day to day practices carried out in the management of working capital. These hospitals are Kenyatta National Hospital and Moi Teaching and Referral Hospital. Numerous studies have been conducted in the field of working capital management in both for-profit and not-for-profit organizations. A review of this literature is presented in this study with the aim of highlighting areas that require further research. All these studies illustrate the importance of efficiently managing working capital and more so in the public health sector domains where public hospitals are facing progressively less funding from the treasury as well as other donors. It emerges that many public hospitals globally are facing liquidity problems and hence, these problems are not peculiar to any one state or continent. In studying the working capital management practices at KNH and MTRH, personal interviews targeting key finance staff were carried out. The results of this exercise were then analyzed using statistical and spreadsheet software. The findings show that government and hospital policies often impact negatively on the hospitals' revenue bases particularly considering the extent of poverty levels amongst communities served by these institutions. Whereas treasury regulations require that any surplus funds of these institutions be invested in treasury bills and bonds (Treasury Circular No. 10 of 1992), any year end surpluses must be remitted back to the government, meaning that the institutions may not be able to plough back the surpluses generated to fund their operations. It is also evident that although the two institutions have financial regulation policies to guide financial management practices, these policies are often too general and superficial. In other words, they do not set comprehensive benchmarks or minimum requirements that cover all possible areas of working capital management. This has made the implementation of these policies to be ad hoc and uncoordinated. Numerous other challenges facing the management of working capital have been identified in the two institutions. These challenges have adversely affected operational efficiency and thereby created liquidity problems. Addressing these challenges can improve the efficiency of working capital management and in consequence, improve the operating cash flows of these institutions.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

According to Ross and Westerfield (1990), the term working capital refers to the amount of capital which is readily available to an organization. It is the difference between current assets and current liabilities. In a hospital setting it is the funds necessary to finance the conversion operating cycle, from delivering services to receiving funds and to paying invoices for materials used. The higher the figure, the more liquid a hospital is considered and the higher its ability to pay its debts (Langabeer, 2008). Working capital comprises various components including cash, inventory, debtors, creditors and other short term liabilities which determine the financial viability of organizations. The objective of working capital management is to maintain the optimum balance of each of these components.

Maintaining financially viable public hospitals is a continual challenge for government in the face of advances in technology and medical treatments; changing community needs, such as increasing treatment options; increasing community expectations; and an ageing population (Owino and Were, 1999). There is a need for efficient working capital management practices in public sector hospitals. The enormity of this need can be illustrated by considering the case of Kenyatta National Hospital (KNH), the largest referral hospital in Kenya. According to the hospital chairperson, KNH was losing Kshs. 300 million annually due to unpaid medical bills (The Standard, 5 August, 2009). As a result, there was an outstanding deficit of Kshs. 1.6 billion which the hospital could not afford to waive as doing so would have led to operational difficulties. The report further revealed that between May and June of 2009, the hospital waived outstanding charges for more than 600 patients whereas 400 others were detained in the facility for non-payment of medical services provided to them. In the same spirit Moi Teaching and Referral Hospital (MTRH) lost an average of Kshs. 2.2 million per month (approximately Kshs.

26 million per annum) of revenues through waivers and exemptions between Financial Years 2005/06 and 2007/08 (MTRH Financial Reports, 2005/06 to 2007/08).

Globally, other studies have shown that many public hospitals operate under similar cash deficit positions. Examples include Kingston General Hospital in Canada (Scott, 2008), North General Hospital in Harlem, USA (Rule in The New York Times, 21 November 1982) and public hospitals in South Africa (Holdt and Murphy, 2005) among others. These liquidity management problems occur at a time when increasingly more governments are facing difficulties in funding health care services and are therefore reducing their roles (Collins, et al, 1996; Ministry of Health, 1994). Evidently there is a strong case for more efficient liquidity management practices in public health institutions if these institutions are to remain financially sustainable.

The efficiency of liquidity management depends on the specific working capital management policies adopted by public health institutions and how effectively these policies are implemented. However, Glenngard and Maina (2005) in their study on the Kenyan health sector found that policy implementation in the context of health systems was by no means an easy task. This study revealed gaps between policy objectives and policy implementations that the authors mainly attributed to a mismatch between responsibilities and capabilities at different levels of the system. It is possible that this same scenario is replicated in the management of working capital, precipitating the current liquidity crises faced by KNH, MTRH and other similar public hospitals globally.

In the increasingly competitive health care environment, one major way to ensure survival is to properly manage working capital because this is a key determinant of the amount of cash available for the organization's operating activities (Glenngard and Maina, 2005). The need to manage working capital is crucial because by so doing, organizations ensure that they have sufficient cash flows to finance their operations. Public sector organizations need adequate liquid resources to maintain day-to-day cash

flows. Bhattacharya (2001) postulates that maintaining adequate working capital is not only important in the short run, but also in ensuring survival in the long run.

Despite a government policy requiring state corporations to raise their own resources with a view to sustaining their operations, health institutions like KNH and MTRH face unique challenges as the government at the same time expects them to equitably serve all patients regardless of these patients' abilities to pay for the costs of health care. As a direct consequence of this policy, both institutions have faced financing challenges which have undoubtedly led to a situation of untenable solvency. Hence the need to optimize the management of working capital as a way to free cash for financing daily operations becomes even more critical.

1.1.1 Structural organization of the health sector in Kenya

Kenya's health care delivery systems are organized around three hierarchical levels (Ngigi and Macharia, 2006). At the apex is the MOH headquarter, followed by the provinces and then the districts. The organization and implementation of the health system in Kenya is done through a network of facilities organized in a similar pyramidal pattern. At the base are the dispensaries and health clinics, up to the health centres, sub-district hospitals and then provincial general hospitals. At the apex are the two national referral facilities, Kenyatta National Hospital (KNH) and Moi Teaching and Referral Hospital (MTRH).

1.1.2 The Kenyatta National Hospital (KNH)

KNH is the largest referral hospital in Kenya. Located in Nairobi, KNH was established in 1901 with a bed capacity of 40 and an aim of being a national referral and teaching hospital that would also provide a medical research environment. Today KNH has 50 wards with a total bed capacity of 1,800. The hospital offers a wide range of services including curative, consultative and preventive medicine. KNH became a State Corporation in 1987 and is now at the apex of the referral system in the health sector in Kenya and encompasses a College of Health Sciences (University of Nairobi), the Kenya Medical Training College, Kenya Medical Research Institute and National Laboratory

Service (Ministry of Health). Apart from providing quality health care to clients, other objectives of KNH are to provide teaching facilities for highly qualified healthcare professionals, research and participation in the formulation of national health policies.

1.1.3 The Moi Teaching and Referral Hospital (MTRH)

MTRH is the second largest referral hospital in Kenya after KNH in Nairobi. It started in 1917 as a native cottage hospital and has since grown into a national hospital. The development of the institution as a teaching hospital was triggered by the establishment of Moi University in 1984 and the subsequent establishment of the Faculty of Health Sciences (FHS) at the university. Located in Eldoret town, the hospital was elevated from a provincial to a national teaching and referral hospital to serve the western region of Kenya in 1998. MTRH provides a range of health care services including curative, consultative and preventive medicine. It also provides specialized health care service training and research (MTRH Strategic Plan 2005-2010). The institution was established as a state corporation in 1998. One of the key objectives of MTRH is to build a sustainable financial base that is able to meet the needs of as many referred patients as possible and to improve the variety of services provided by diversifying the sources and quality of financial support (MTRH Strategic Plan, 2005-2010).

1.2 Statement of the problem

An organization operating with a positive working capital is able to meet its short term obligations whenever they fall due. Hence, for example when an organization's current assets do not exceed its current liabilities, the organization may run into difficulties when trying to meet due obligations in the short term. In as much as a public sector hospital is a non-profit making organization, focusing on appropriate working capital management is extremely important (Bhattacharya, 2001). Given the increasing costs of health care worldwide, efficient provision of health care to patients has become an extremely important issue. In many developing countries, public hospitals consume large portions of scarce public resources, although they do not always use these resources efficiently and effectively. Faced with difficulties in funding health care services, some governments have even considered granting greater autonomy to hospitals as a way of improving

quality of care, increasing revenue generation and reducing or containing costs (Stover, 1991; Newbrander, 1993).

The health sector receives a good proportion of public funds for health care (Owino and Were, 1999). Therefore, public sector health institutions must pay close attention to whether or not they have enough cash reserves to provide much needed services. Cash flow can be extremely challenging to predict, because public institutions rely mainly on government funding over which they have little control.

Increased competitive health care environments and funding gaps resulting from declining resources have accentuated difficulties faced by health care institutions in making cash payments for their ever increasing operational costs. By 1994, the MOH health care delivery system was bedeviled with declining resources, inefficient utilization of existing resources and inequitable resource allocations among other problems (MOH, 1994). This meant that the government's ability to bail out ailing public health care institutions was drastically eroded, hence the need for public health institutions to manage their own internal resources more efficiently. Various studies have shown a global working capital management problem in public sector hospitals that comes at a time when many governments are facing difficulties in funding health services, leaving these hospitals with limited cash resources. Indeed there could be policies in such institutions prescribing efficient working capital management strategies but studies have shown that gaps between policy objectives and policy implementations often exist (Glenngard and Maina, 2005). It is also evident these hospitals are facing a myriad of challenges in managing their short term financial resources.

This study will therefore evaluate the working capital management practices adopted by KNH and MTRH vis-à-vis the established policy objectives derived from financial regulations and guidelines. It will also seek to identify the challenges faced by these institutions in the process of policy implementation. The purpose of this is to suggest

possible ways of dealing with these challenges so as to improve the efficiency of working capital management.

1.3 Objectives

The objectives of this research are:

1.) To evaluate the working capital management practices adopted in the national referral hospitals in Kenya against stated policy objectives.

2.) To identify the challenges faced by these institutions in the implementation of the working capital management policies relating to accounts receivable, accounts payable, inventory and cash holdings.

1.4 Significance of the study

The findings of this study will be expected to proffer potential benefits to various stakeholders. These stakeholders have significant interests in the management of working capital in the two national referral hospitals and generally in how effectively internal financial resources are allocated to various uses.

The National Health Sector Strategic Plans (NHSSP I and II) express the government's desire to provide quality, affordable health care services and to improve the efficiency and effectiveness of service delivery to her citizens. From a government perspective, excess working capital means operating inefficiencies. The findings of this study will therefore be of relevance to policymakers at the Ministry of Health as well as other relevant arms of government as a guide to improving operating efficiencies.

For public health institutions like KNH and MTRH, a conflict arises where the institutions are expected by the government and the public to provide quality, affordable health care services and yet be financially self-sustaining. Therefore, the findings of this study will be of importance to the institutions' managers as an aid to balancing these seemingly conflicting objectives.

Working capital management practices determine the liquidity of an organization. This liquidity is needed for meeting obligations which include personnel costs. Thus, the findings of this study will be useful to employees of KNH and MTRH who may be interested in knowing about the institutions' current performance and future employment prospects.

Creditors too, both lenders and suppliers will find the results of this study a useful tool in assessing the short term solvency, hence the credit standing of the two institutions. By so doing the creditors will be able to determine whether their assets are secure or at risk.

Working capital constitutes part of the public sector fund's investment in a public institution. Associated with this is an opportunity cost to the public where money invested in one area may cost opportunities for investment in other areas. Thus, the general public will find this study useful. Donors too have an interest in how their funds are applied since in many cases these funds represent public monies from the agencies' home countries. Being public bodies, the managers of KNH and MTRH are expected to exercise prudence in the management of public resources. If an institution is operating with more working capital than is necessary, this over-investment represents an unnecessary cost to the public. Funds and assets of KNH and MTRH are considered 'public monies' and as such are subject to public scrutiny. Therefore, this study will be of interest to these stakeholders in the exercise of this scrutiny.

Studying working capital management practices in KNH and MTRH will contribute to the working capital management literature by shedding some light on the importance of efficient short term financing strategies on the resource efficiency and general financial performance of public sector organizations and in particular, public hospitals in Kenya. It will also serve as a basis for further related empirical studies in accounting and finance.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

Various studies have been conducted in the field of working capital management, indicating the importance of this element of financial management in the running of a wide variety of organizations. Working capital management practices are increasingly important to not-for-profit organizations especially in the public health sector. This section discusses literature on the theory of working capital management as well as empirical findings by scholars on working capital management in the public health sector in Kenya as well as other parts of the world.

2.2 The theory of working capital management

Working capital management is a very important component of financial management because it directly affects the liquidity of an organization. Working capital refers to the difference between current assets and current liabilities. Pandey (1999) states that net working capital indicates the liquidity position of the firm. It is imperative that current assets be sufficiently in excess of current liabilities so that there is an obtaining margin for maturing obligations within the ordinary operating cycle of business. Moyer et al (1984) assert that for an organization, investment in current assets such as inventories and debtors is realized during the firm's operating cycle which is usually less than a year. Operating cycle is, therefore the time required to convert sales into cash. This process involves the conversion of resources into inventories before converting the inventories into cash. The challenge for working capital management is that often cash outflows are relatively certain whereas cash inflows are difficult to forecast with reasonable certainty. Often the excess of cash inflows over cash outflows determine the liquidity of an organization.

According to Eljelly (2004), liquidity management involves planning and controlling current assets and current liabilities in a manner that eliminates the risk of inability to meet due short term obligations and at the same time avoids excessive investment in

these current assets. A large holding of current assets, especially cash, strengthens an organization's liquidity position thereby reducing risk. However, this holding also reduces the overall productivity of the organization. On the other hand, having insufficient working capital can threaten the solvency of an organization due to its inability to meet short term obligations. According to Van Horne and Wachowicz (2000), organizations with too few current assets may incur material shortages and difficulties in maintaining smooth operations. This situation is worsened by poor financial management, especially inadequate planning of cash requirements (Jarvis et al, 1996).

There is an implicit risk-return tradeoff in holding current assets. Various authors have highlighted this financial managers' dilemma. For instance, Gitman (1994) and Bhattacharya (2001) have discussed these risk-return tradeoffs inherent in alternative working capital management policies. This suggests that an optimal level of working capital exists depending on an individual organization's circumstances (Long, Malitz and Ravid, 1993; Deloof and Jegers, 1996). Efficient working capital management aims at attaining a near optimal state and thus, ensuring that neither excessive nor inadequate working capital positions persist. For non-profit making organizations, there is an even greater need for efficient working capital management. If this is not done then the organizations would need to borrow in order to finance their continued working capital needs (Deloof, 2003).

2.3 The need for working capital management in the Kenyan public health sector

Since independence, the Kenyan government's goal has been to improve the general health status of the Kenyan people. Government policy objectives have emphasized on the provision of health care services that meet the basic needs of the population and which are also within easy reach of the majority (Owino and Korir, 1997) These objectives have led to a shift in both the financing and structural organization of the health sector in Kenya.

According to a Health Sector Overview Paper (HSOP) by Ngigi and Macharia (2006), the government abolished fee collection in health facilities in 1965. Five years later the Ministry of Health (MOH) took over the health centers and dispensaries run by local authorities. In 1989 cost sharing where patients had to pay consultation fees in government health facilities was introduced. At the inception of the cost-sharing programme, it was recognized that charging user fees would lead to inequities in the provision of health care services. Therefore, on equity grounds, waivers and exemptions were introduced to cushion the income poor and other vulnerable groups against adverse effects of the user fees. Due to a decline in resources, the government was no longer able to provide unlimited free care as budgetary allocations became insufficient to meet rising costs.

In 1994 the MOH produced Kenya's Health Policy Framework (KHPF) whose main aim was to ensure the improvement of general health status of the Kenyan population (MOH, 1994). One way of achieving this was through the definition of an essential cost effective care package. To operationalize this KHPF, the National Health Sector Strategic Plan I (NHSSP I, 1991-2004) was developed (MOH, 1991). This strategic plan emphasized the decentralization of health care delivery through redistribution of health services to rural areas.

The Government of Kenya (GOK), through the MOH developed a vision of an efficient and high quality health care system that is accessible, equitable and affordable by every Kenyan household (MOH, 2005). In this revised National Health Sector Strategic Plan II (NHSSP, 2005-2010) the stated policy objectives are increasing equitable access to health services and improving efficiency and effectiveness of service delivery. One of the major strategies to achieve these objectives entails the shifting of resources from higher to lower levels of service delivery and directing them towards the poor. This would translate to less funding of hospitals as more resources were diverted to dispensaries and health centers.

It is against the backdrop of limited resources available for health care service delivery and the need to provide easier access to health facilities by the rural folk that the government is moving towards decentralization of health care provision. The MOH has initiated the development of a legal and regulatory framework as well as capacity building at the lower levels, with the aim of devolving the entire authority for planning and financial management to the district level. This has meant a shift of focus and resources from hospitals to the dispensaries at the district levels meaning that these hospitals now have to manage their internal resources more efficiently. A key component of these resources is working capital.

2.4 Financing health care in Kenya

The MOH is the major financier and provider of health care services in Kenya. In 2006, out of over 4,500 health facilities in the country, the MOH controlled and ran about 52% while the private sector, the mission organizations and the Ministry of Local government ran the remaining 48% (Ngigi and Macharia, 2006).

In terms of the actual overall health spending in Kenya, a significant part is borne by households. This is despite the fact that a majority of these households are classified as poor (MOH, 2005). These findings highlight the magnitude of issues facing policy makers in exploring alternative and sustainable financing mechanisms to encourage equity in financial access to health care. They also point out the inadequacy of health care resources and hence the need to develop efficient and effective resource allocation and management formulas.

2.5 Financial management efficiency in public hospitals

According to Langabeer (2008) most hospitals are non-profit in nature and nearly 85% of them are generally considered to be not-for-profit, existing solely to serve the community in which they operate. Usually these organizations are not expected to show continuous positive growth rates or margins but if they do not show some return on capital invested, there will be negative consequences. While some hospitals and health systems wait for

changes in the public health care policies to help them, the more competitive and successful hospitals are acting to protect their margins. Nowicki (2007) in a discussion of the context of healthcare's unique pluralistic funding; specifics of its operating revenue and working capital; resource allocation planning; and future trends, states that without effective financial management hospitals and other healthcare providers cannot fulfill their mission of offering needed medical services to their communities. A study by Owino and Korir (1997) which examined financial management efficiency levels in hospitals in Kenya suggested that there was a need to take cognizance of efficiency issues as the government invests its scarce resources in the health sector. This knowledge would enable the policy makers and health care managers to make informed decisions on the allocation and use of scarce resources in a manner that maximizes the returns, and promotes coverage and access to health services by the population. This would mean proper management of working capital to ensure a balance between cash inflows and outflows, meaning the need to time when creditors should be paid, how long debts should remain outstanding, how often inventory should be turned over, how much cash should be held and also determining policies prescribing the optimal levels of all these components. Results of the same study by Owino and Korir (1997) revealed an average efficiency level of 30% and increasing returns to variable factor inputs. Other findings include low responses of recurrent costs to changes in hospital capacity and output as well as public hospital operating costs that were higher than minimum average costs. A major requirement here is for better management of available resources and improved allocation efficiency.

According to Owino et al, (2000), decentralization empowers the lower level tiers in health planning and management by transferring planning, management, resource generation and allocation from the central government. Their findings included weak linkages between plans and budgets, unclear mechanisms for allocating resources, problems of the disbursement of district float, bureaucracy and ineffective financial management at the district treasury. These authors again raise an issue of corporate governance in the decentralization of financial management of hospitals in Kenya.

According to these authors, the MOH has made bold steps towards decentralization so as to enhance governance, efficiency and effectiveness in the delivery of services at the district level. A case for decentralization is that the District Health Management Boards (DHMB's) have tended to be lax, sloppy, inconsistent and ineffective and thus, decentralization is encouraged.

Another study by Holdt and Murphy (2005) on six regional hospitals and two tertiary hospitals across KwaZulu Natal, Guateng and Northwest Province in Southern Africa found a dysfunctional relationship between hospitals and provincial head offices. Thus, hospital managers were disempowered and could not take full accountability for their institutions. The study also found financial management to be grossly under resourced, and a lack of capacity to draw up budgets, control costs or monitor shrinkage and wastage. According to these authors, budgets were 'meaningless' as they were based on historical costs rather than being zero base budgets based on actual operational activity and realities. In many of the hospitals, management was working towards disaggregating costs and allocating them to operational units such as wards and pharmacies thereby preventing the allocation of accountability for controlling costs. All in all, it is difficult to make cost controls, financial targets, accountability and budgeting possible under these circumstances.

The wider problem for public hospitals seems to be in the inefficiency of operations for some of these hospitals. In support of this theory, a pilot study on the technical efficiency of public district hospitals and health centres in Ghana found 47% of the hospitals to be technically inefficient (Osei et al, 2005). A similar study among 55 public hospitals in Kwazulu-Natal province in South Africa also found 40% of the hospitals to be technically inefficient (Kirigia et al, 2000; Zere et al, 2000). Another analysis of 54 public hospitals in Kenya revealed that 26% of them were technically inefficient (Kirigia et al, 2002). Masiye et al (2002) undertook another analysis among 20 hospitals in Zambia and also found 75% of them to be technically inefficient. Thus, the available evidence indicates that there is significant technical inefficiency among health facilities

in Ghana, Kenya, South Africa and Zambia. However, the magnitude of inefficiency in these countries does vary due to unique circumstances. In the production process, hospitals and health centres turn inputs (factors of production) into outputs (health services). The technically inefficient health facility uses more inputs per output, or produces less output per input than the technically efficient one.

2.6 Waivers and exemptions of debts in public hospitals

Waivers and exemptions constitute a major component of working capital in a hospital setting. Waivers and exemptions relate to the provision of temporary credits and complete write offs of account receivables for certain categories of patients. In exemptions, certain classes of patients are not billed at all due to hospital or government policy. The Kenyan government introduced waivers and exemptions as a safety net to guard against the possibility of increased user fees catapulting access to affordable health care beyond the reach of certain groups (Korir, 2003). This scenario was occasioned by the introduction of cost sharing in health care services, a development touted to have potential benefits for the financial sustainability of public health facilities. Whereas exemptions are automatic, (targeting certain categories of patients such as prisoners and illnesses such as malaria and tuberculosis) waivers are intended for those patients who can barely afford health care services. Waivers and exemptions are key considerations for hospital management as they represent foregone revenues.

In practice the application of waivers is done in a somewhat inequitable manner. Previously there was little research to assess the impact of waivers and exemptions, many studies focusing instead on the impact of user fees on utilization. A study by Owino and Were (1999), while attempting to address the equity objective in the application of waivers and exemptions, also downplayed the effect of waivers and exemptions on financial losses to health facilities. It found that the average number of monthly waivers granted by individual facilities hardly exceeded two people, that is, approximately about 13,608 nationally. This is considering all public health facilities, all of 107 hospitals, 387 health centers and 35 sub-health centers. According to the study, these figures are

insignificant considering that about 11 million Kenyans were living below the poverty line at the time. In terms of revenue loss, it was found that the figures attributable to waivers and exemptions were not significant at the national level. Accordingly, only a maximum of 3.4% and an average of 2% were lost in revenues. Thus, about Kshs. 4.1 million of the cost sharing revenues raised in the Financial Year 1996/1997 (Kshs. 673 million) went to the poor as subsidies. Although the MOH has standard rules for determining eligibility of cases for waivers and exemptions, the cost sharing program has inbuilt flexibility that allows the institutional administrators to oversee the process. Consequently, success in application and the level of revenues foregone largely depends on the interpretation and judgment of the hospital administrators who include nurse managers, departmental heads and medical social workers. Notably, the finance manager or credit controller for that matter has little or no role to play at all in the entire process of determining whether to give credits or write off debts thereby creating opportunities for possible abuse of the process.

In cases of partial waivers or credit systems, the patients are usually required to provide security in form of land title deeds, motor vehicle log books, national identity cards or letters of commitment endorsed by a local chief or district officer from the patient's locality. The title deeds and log books are not usually executable in cases of default due to the exclusion of legally binding transfer documents. The national identity cards and commitment letters are in themselves insufficient security items. As a result, these documents end up accumulating at the hospitals and remain uncollected, in many cases for several years on end. Consequently, valuable resources of the hospital are tied up as debts or lost through bad debts (Korir, 2003).

Again according to Korir (2003), user fee revenues formed a significant portion of funds for non-wage recurrent expenditures at the facility level, as the facilities were allowed to retain 75% of these revenues. Given inadequate budgetary allocations from the Ministry of Health, the revenues always assured continued provision of services, and hence the staff discouraged granting of waivers and exemptions as these translated into loss of

revenues. However, the MOH can reimburse facilities for such losses as an incentive to support the implementation of safety net programmes. The management of KNH revealed that government intervention was in any case, insignificant (The Standard, 5 August 2009, p 8). The dependence of facilities on cost-sharing revenue has led to less priority being given to provision of waivers and exemptions. The results showed that facilities in districts with high poverty levels had low collections as well as low volume of waivers granted, indicating unmet demand by the poor. The study recommended that the MOH budget allocations to the districts and facilities be based on such needs as fee collection potential, among others. Use of such criteria would increase the availability of financial resources to the poor districts, facilitating granting of more waivers to the income poor and other vulnerable groups by health facilities. The study also recommends that measures be put in place to strengthen the efficiency in collection of cost sharing revenue at the facilities, as the findings showed a positive association between fee collections and waivers.

Improving collection efficiency should result in reduction of waivers and exemptions provided, as evidence shows that the collection levels at most of the cost-sharing facilities are always short of the targeted potential, even after making allowance for waivers and exemptions. The collection efficiency could be increased, for instance, through installation of cash registers at public health facilities, which have been noted to increase the efficiency. Improved collections would be an incentive to facility managers to provide more waivers (Owino and Were, 1999).

2.7 Liquidity management and the funding gaps in public hospitals

In the daily operations of an organization, an ongoing series of cash inflows and outflows pays for day-to-day expenses such as supplies and salaries. The organization must have sufficient funds available to pay for these items on a timely basis. But this is particularly problematic in health care where it is not unusual for payments to be received more than two months after the patient or a third party has been billed for the provided services (Zelman et al, 2003). According to these authors, a health care organization would ideally

earn and receive sufficient funds from providing services to enable it meet its current obligations with available cash. To the extent that payments are due before cash is available, the organization will have to obtain cash from sources other than existing revenues.

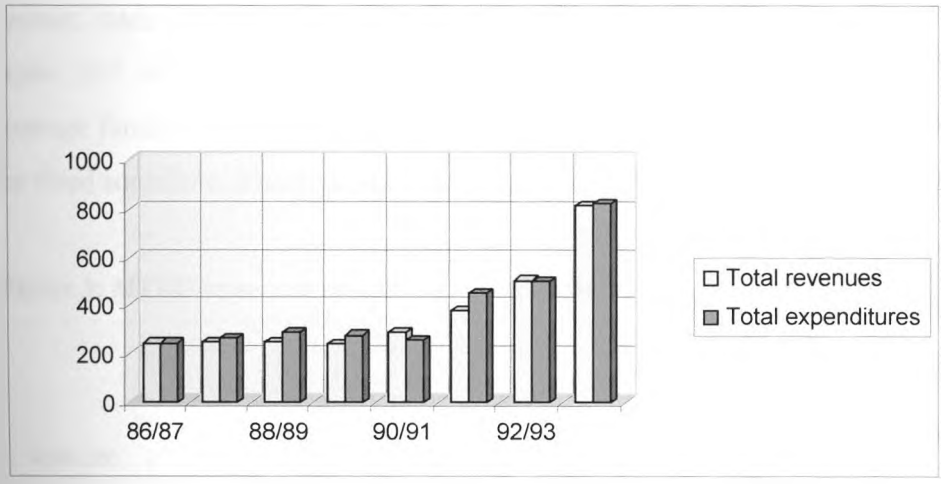
In 2005 MTRH projected huge financing gaps for the period between 2005 and 2010. Other studies have shown that many public hospitals also operate under such cash deficit positions globally. A study by Alvarez and Marsal (2008) in the United States found that of more than 4,500 hospitals, more than half were technically insolvent or at risk of insolvency. As these hospitals were not making a profit, they relied on alternate funding such as from donors and government. And even among the 'profitable' hospitals, nearly 1,000 did not generate sufficient cash flow to fund essential, non-discretionary capital expenses that are necessary to comply with regulations and to remain competitive. As the economy continues to deteriorate, it has become critical for hospital management and boards to improve their financial and operating conditions to ensure long term solvency. If a hospital cannot earn profit on its patient care services, it must rely on other risky sources as stated above. The financial risk here is that non-operating sources of hospital funding are more sensitive to general macro-economic cycles. This study found that more than 36% of potentially insolvent hospitals had negative working capital with the average ratio of total liabilities to total assets being 71%. In conclusion, the study stated that hospitals supported by state and local governments have become significant drains on state and county taxes and in some cases budget shortfalls could threaten the financial viability of entire counties.

Hayden (2005) from a study on non-profit hospitals in Massachusetts, USA found that like most non-profit hospitals, the hospitals in Massachusetts faced serious financial challenges of a mismatch between revenues and expenses. This impacted on the viability of non-profit hospitals across the nation. The author also noted the negative outlook of the nation's non-profit hospitals by the rating agencies. This situation was attributed to declining governmental and non-governmental reimbursements, mounting expenses and

growing bad debt costs leading to increasingly difficult access to credit markets at times of significant capital needs. The state's predominantly non-profit health care system has faced perpetual cycle of fiscal 'convulsions' and poor financial performance, with one-third of them having closed over the previous 25 years. Further, health care setting in many cases includes an overwhelming bias against for-profit health care, based on the view that, as a consumer entitlement, health care can be easily compromised in a for-profit setting that focuses on net income rather than on quality of care for everyone. Similar to the Kenyan situation, improved managed care payments since 2001 allowed some hospitals to break out of losses and to report increased earnings. But these were not sustained. There was a persistent underperformance with lower than average operating margins for half of the state's hospitals and 42% reporting negative operating margins in Financial Year 2004. Over one-third of the hospitals reported worse results than the prior year. Another study specifically conducted to look at the largest and most advanced urban hospitals in USA found that they too had deep financial pressures (Langabeer, 2008).

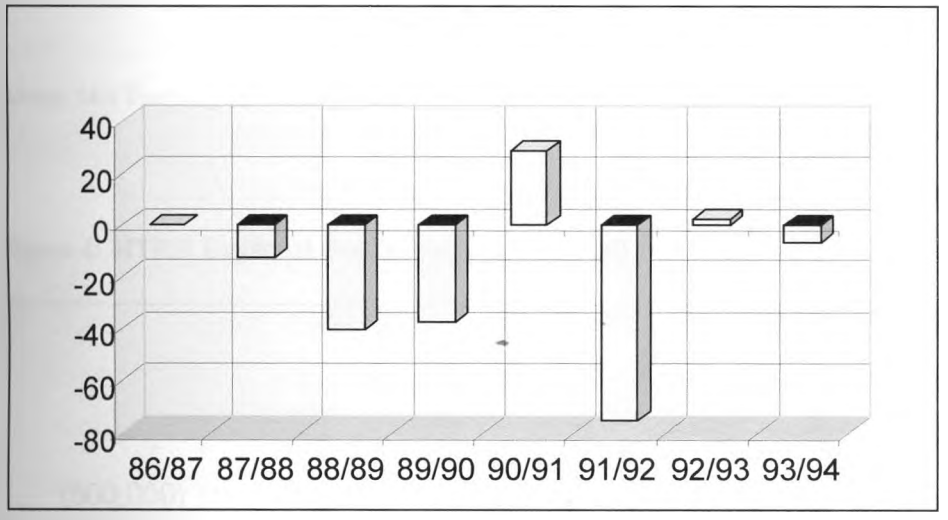
Other examples include Kingston General Hospital in Canada which projected a year end operational deficit for 2008 of $13.5 million, more than double that of the previous reporting period (Scott, 2008) and North General Hospital in Harlem, USA, which had run up a deficit of up to $2 million by the end of 1980 (Rule in The New York Times, 21 November 1982). Closer home, a study on management of public hospitals in South Africa revealed that most were under resourced (Holdt and Murphy, 2005). A study on the Kenyatta National Hospital in Kenya revealed significant cash deficits between 1987 and 1993, ranging between Kshs. 6.8 and 75.8 million per annum (Collins, Njeru and Meme, 1996). KNH reports over this period show operating deficits in five out of eight reporting periods thus confirming a continuing trend of liquidity problems in public hospitals. These figures are shown in the graphs below.

Figure 1: KNH actual revenues and expenditures (Kshs. Million)



Source: Kenyatta National Hospital financial statements for 1986/87 – 1993/94 and MOH appropriation accounts for 1987/88

Figure 2: KNH actual surplus and deficits (Kshs. Million)

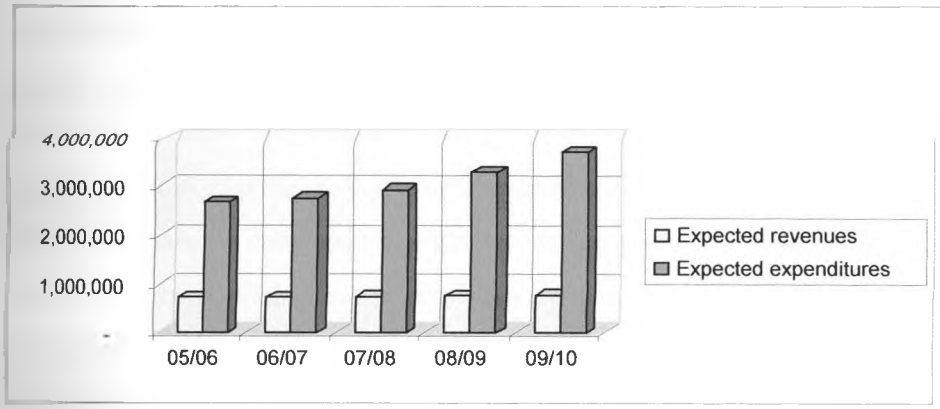


Source: Kenyatta National Hospital financial statements for 1986/87 – 1993/94 and MOH appropriation accounts for 1987/88

Over the period between Financial Years 2005/06 and 2009/10, MTRH expected average grant receipts from the government of approximately Kshs. 456 million per annum. Revenues expected from cost sharing over the same five year period averaged Kshs. 301 million per annum giving a total average of Kshs. 757 million per annum in expected

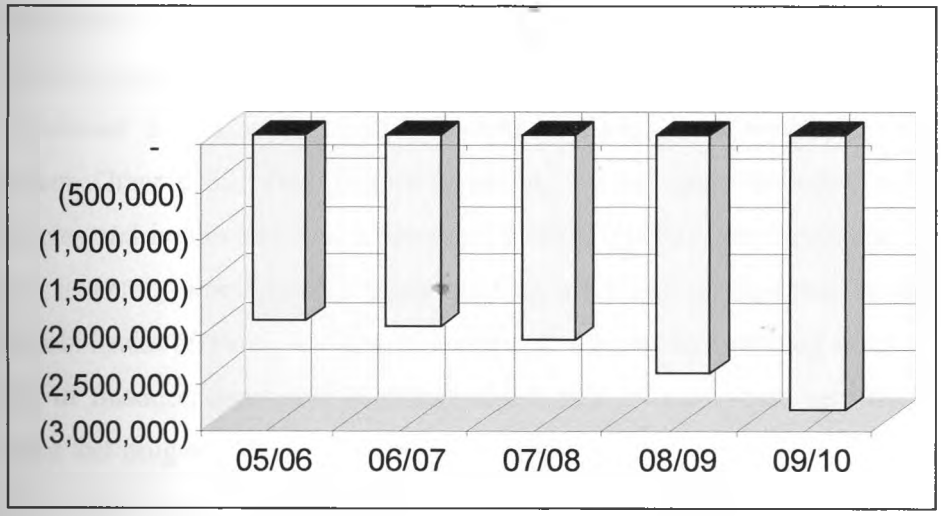
revenues. This is against expected total expenditures averaging Kshs. 3.05 billion per annum, made up of recurrent expenditures of Kshs. 2.7 billion and capital expenditures of Kshs. 391 million (MTRH Strategic Plan, 2005-2010). Thus, there was an expected average funding gap of about Kshs. 2.29 billion per annum over the period which had to be filled somehow. These figures are presented in the graphs below.

Figure 3: MTRH expected revenues and expenditures (Kshs. '000)



Source: Moi Teaching and Referral Hospital Strategic Plan 2005-2010

Figure 4: MTRH Expected fund deficits (Kshs. '000)



Source: Moi Teaching and Referral Hospital Strategic Plan 2005-2010

These liquidity management problems occur at a time when many governments are facing difficulties in funding health services and are therefore reducing their role by instituting financial and structural reorganizations aimed at increasing revenue generation, reducing costs as well as granting greater autonomy (Collins, Njeru and Meme, 1996; Ministry of Health, 1994). The efficiency of this liquidity management will be dependent upon the specific working capital management policies adopted by public health institutions and how effectively these are implemented. But as Glenngard and Maina (2005) in their study to assess whether there was a change in policy in the Kenyan health sector found out, policy implementation in the context of health systems is generally difficult. This study revealed gaps between policy objectives and policy implementations that the authors partly attributed to a mismatch between responsibilities and capabilities at different levels of the system. Budget allocations and actual expenditures compared to set policy objectives in the Kenyan health sector revealed that allocations and actual expenditures in part went against policy objectives. Challenges faced here included failures to use a significant proportion of available funds, reallocation of funds between line items and delays in disbursement of funds at the central level, thus creating the gaps between policy objectives and policy implementation.

Locally, other literature on the management of working capital in the health sector exist. For instance, Gathumbi (1997) in a study on factors hindering the application of drug inventory models at the Nairobi City Council health services found that a major impediment to the application of inventory models was frustrations by the ordering system. Other debilitating factors according to the study included lack of automated systems and implementation awareness. Kariuki (1993) considered the major causes of drug inventory problems in a study on drug inventory management at the University of Nairobi health services. Results revealed that the problem of drug shortage was due to a lack of finances, unreliable suppliers and a lack of up-to-date records. The study also found that drug ordering processes were far too long and tedious. It will be interesting to see whether these factors affecting institutional health services also impact on the national referral hospitals.

Outside the public health sector, other studies have been conducted that focused on public companies and public sector organizations. Mogere (2003) carried out a survey of working capital management policies among public companies in Kenya. The results of this study showed that the most commonly practiced policy among these companies was the aggressive policy where the organization relied on minimum investment in current assets and was highly dependent on short term financing. Ngaba (1990) in a study on working capital management practices in Kenyan secondary schools concluded that there was a lack of professionalism in the management of school finances wherein widespread poor policies on the management of working capital was the norm. Further afield but within the East African region, Musokwa (1981) conducted a study on financial management in parastatals focusing on Tanzania Electric Supply Company Limited (TANESCO). This study concluded that national policies and objectives overrode all other considerations in the financial management of parastatals since these organizations were created to serve national interests. These national interests were ordinarily defined in the political realm.

It is evident that many more studies of a formal nature have focused on for-profit as opposed to not-for-profit organizations. Indeed analyzing financial distress in hospitals is more difficult than in other industries. There has been virtually no research to classify and predict business failure in hospitals. This is because being primarily non-profit hospitals manage to find alternative ways of turning around the business prior to filing bankruptcy proceedings for liquidation or reorganization (Langabeer, 2008).

2.8 Conclusion

In conclusion, the review of literature above has revealed a need for the effective and efficient management of working capital in an organization. This is because working capital management directly affects the liquidity of the organization. Scholars have suggested the existence of an optimal level of working capital depending on individual organization's circumstances as well as a risk-return trade-off that is inherent in

alternative working capital management policies. However, these studies have placed a greater emphasis on commercial organizations.

Other studies conducted locally have touched on specific aspects of working capital management in both the public sector and commercially oriented private sector organizations. Although these studies cover pertinent matters relating to the management of working capital, they have dwelt majorly on specific components of working capital management such as inventory and trade accounts payable. Few if any have taken a holistic approach to the management of short term finance represented by working capital.

Studies on the Kenyan health sector highlight the financing challenges faced by the government in the course of improving the general health status of the people, challenges which have led to a shift in both the financing and structural organizations of the health sector in Kenya. Declining resources have hindered the government's ability to provide unlimited free care in light of rising costs and new challenges of ensuring equity in the provision of quality, affordable health care. The studies further show that the efficiency of working capital management in Kenyan public hospitals is wanting in view of increasing financing gaps, attributed in part to poor policy implementations. This has led to widespread liquidity problems that have impacted negatively on the financial viability of these hospitals. Other similar studies around the world portray a global trend in liquidity crises faced by public hospitals, pointing to the inadequacy of health care resources and hence the need to develop efficient and effective resource allocation and management formulas. However, none of these studies have specifically addressed the main reasons behind the liquidity problems and the adequacy of working capital management practices in these institutions.

Consequently these studies do not adequately address the working capital management challenges facing public health sector institutions in Kenya and thus, a knowledge gap does exist here. This study aims at bridging this gap.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research design, population, data collection methods, reliability of the research instruments and data analysis procedures. It provides an indication of how the study was conducted.

3.2 Research design

This research uses a case study approach aimed at gaining insights into an existing situation and to clarify concepts and policies. A number of scholars suggest that case studies can be used as the appropriate research strategy for discovery or exploration (Benbasat et al. 1987; Hutjes and Buuren 1992; Lammers et al. 2004). Denscombe (1999) defined a case study as a study that focuses on one instance or a few instances of a particular phenomenon with a view to providing an in-depth account of events, *relationships, experiences or processes occurring in that particular instance. Thus, a case* study method was adopted for this research and it provided an opportunity for in-depth study into the working capital management practices at KNH and MTRH.

3.3 Population

A population is defined as the total collection of elements about which we wish to make some inferences. According to Cooper and Schindler, (2003) a population element is the subject such as a person, an organization, customer database, or the amount of quantitative data on which the measurement is being taken. The target population of this study was the two institutions KNH and MTRH.

The respondents for this study comprised of the financial management team made up of the deputy directors in charge of finance and administration, the finance managers, chief

accountants and heads of debtors, creditors, stores and cash office sections. A total of 14 respondents were interviewed from the two institutions.

3.4 Data collection

The study collected primary data using a semi-structured questionnaire which was administered through personal interviews. This method was able to yield more in-depth information which would not have been captured otherwise if all the questionnaires were to be sent out by mail to the respondents. Secondary data was essentially obtained from hospital policy manuals such as financial regulations. Financial reports too formed part of the source documents for corroborative data.

3.5 Reliability of the research instruments

The confirmation of reliability of instruments is very crucial in that it is the only way to ensure that the information to be collected is going to be appropriate, correct and useful.

To statistically test the reliability of the instruments the researcher carried out a pilot study using a test, re-test technique. The questionnaire was initially tested on 50% of the respondents picked at random from a sample similar to the population under study and a repeat interview was done with the same respondents after one week. The two sets of personal interview questionnaires were then subjected to Pearson Product Moment Correlation Coefficient test to establish the correlation between the responses and to refine the research instrument (Mugenda and Mugenda, 1999). Since a correlation coefficient of 0.5 is normally considered a good measure of reliability, the figure obtained of 0.7 was considered sufficiently reliable for this study. Thus, the researcher went ahead to use the instrument.

3.6 Data Analysis

Data was analyzed using descriptive statistics for summarizing and organizing data as well as inferential statistical methods for interpreting data patterns. Both Microsoft Excel spreadsheet and Statistical Package for the Social Sciences (SPSS) software were used in analyzing the raw data. Ranking using the psychometric Likert scale was also done in specific instances where ordered response levels were used.

CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter analyses the data obtained from the study and presents a discussion of the findings. The discussions have been categorized into sections for each component of working capital, i.e. management of cash, management of debtors, management of creditors and management of inventory.

4.2 Response rate

The targeted number of respondents for this research had been set at 14 comprising of key staff in the finance and audit departments of KNH and MTRH. The researcher was able to interview all 14 respondents representing a 100% response rate.

4.2.1 Composition of the response group

The response group was made up of three respondents from revenue and debtors section, three from expenditure and creditors section, two from cash office, two from internal audit and four who were not specific as to which section they belonged. The latter group simply gave finance as the department to which they belonged. Among the services provided by the sections mentioned were financial services, credit control, processing of accounting documents, cash management as well as audit of financial and operational activities of the organizations.

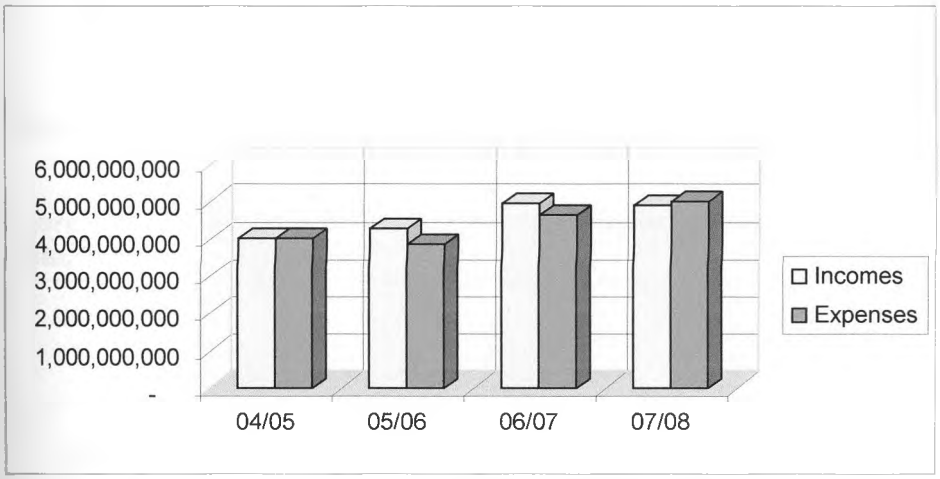
4.2.3 The management of working capital in KNH and MTRH

There are general issues relating to the management of working capital in a hospital setup. This section considers the cross-cutting issues that are not specific to any one particular component of working capital, but which apply generally to the subject of working capital management.

4.2.4 Liquidity management in KNH and MTRH

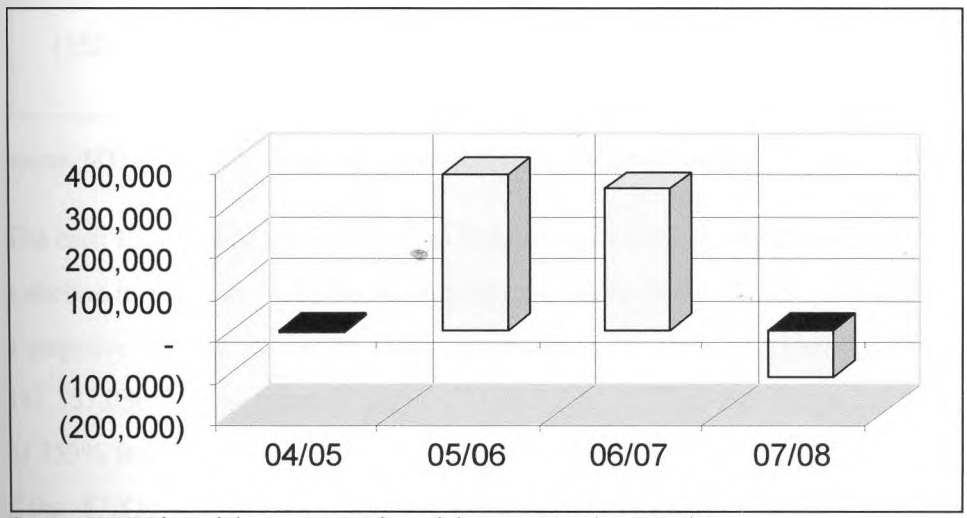
Both KNH and MTRH have experienced cash deficits in the recent few years. Interestingly, both institutions experienced an exceptional dip in cash flows in the 2007/08 financial years showing that they were affected by the similar predisposing factors. The graphs below present the actual figures of revenues and expenditures and the resultant net cash flows for these two institutions.

Figure 5: KNH actual revenues and expenditures for financial years 2004/05 - 2007/08



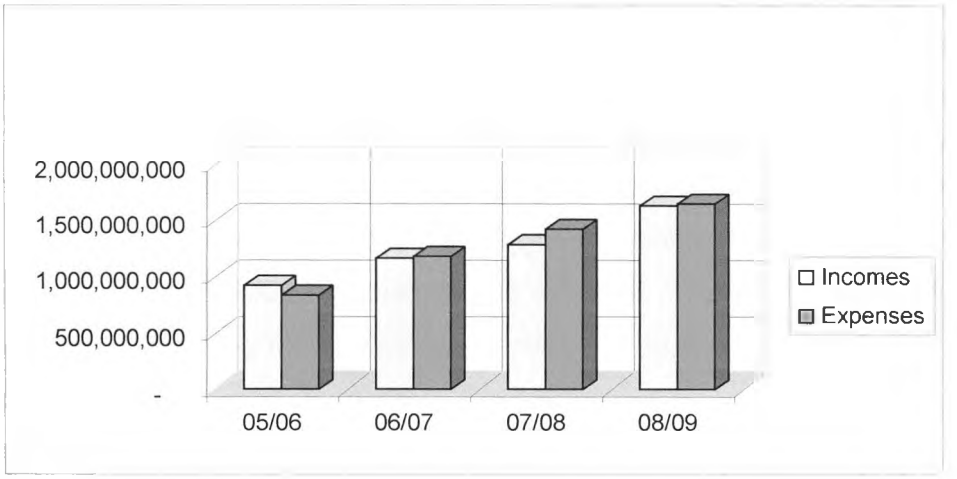
Source: KNH Financial statements Financial Years 2004/05-2007/08

Figure 6: KNH actual operating surplus and deficits for financial years 2004/05 -2007/08 (Kshs. '000)



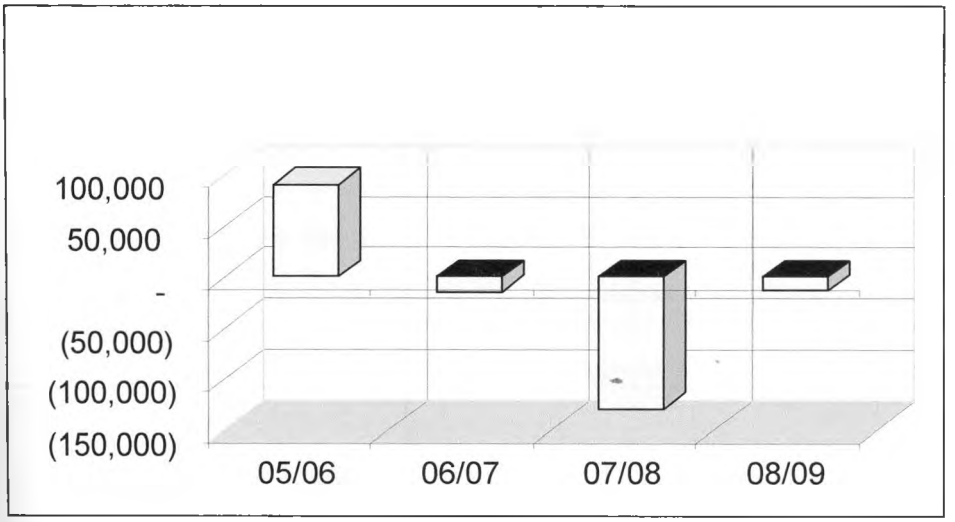
Source: KNH Financial statements Financial Years 2004/05-2007/08

Figure 7: MTRH actual revenues and expenditures for financial years 2005/06-2008/09



Source: MTRH Financial statements (Financial Years 2005/06-2008/09)

Figure 8: MTRH actual operating surplus / deficits for financial years 2005/06-2008/09 (Kshs. '000)



Source: MTRH Financial statements (Financial Years 2005/06-2008/09)

The cash flow statements of the two institutions confirm this situation with both showing a decline in net cash flows between financial years 2006/07 and 2007/08. KNH witnessed a negative change of 180% from an increase in cash and cash equivalents of Kshs. 147,357,080 to a decrease of Kshs. 117,833,830. MTRH too witnessed a negative change of 353% from total cash and cash equivalents of Kshs. 34,626,357 to a negative total of Kshs. 87,833,325 during the same period. These negative cash flows portray liquidity

problems linked to the management of working capital and which are common to many public hospitals.

If operating deficits persist there is a real risk that cash reserves become depleted and that expenditure and capital programs may need to be curtailed. In particular, expenditure that is perceived to be discretionary, especially maintenance, may be deferred or abandoned altogether should deficits persist over an extended period. However, from the financial viability perspective, the relative size of the operating deficit to each hospital's turnover is of more significance. A relatively large deficit, when expressed as a proportion of total revenue, is a greater cause for concern as the hospital has less ability to continue to absorb and sustain such results.

4.2.5 Working capital components considered to be of most concern to management

The researcher sought to find out which of the components of working capital were considered by the respondents to be of most concern to the management of the two referral hospitals. These results are presented below.

Table 1: Most important working capital component in KNH and MTRH

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cash holding in form of petty cash and bank accounts	2	14.3	14.3	14.3
	Institutional and individual debtors	1	7.1	7.1	21.4
	Creditors of medical supplies	2	14.3	14.3	35.7
	Inventories of drugs and other medical supplies	5	35.7	35.7	71.4
	All the above	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Source: Case data

Table 1 above shows that 35.7% of the respondents mentioned inventories of drugs and medical supplies, 14.3% indicated cash holdings, a further 14.3% mentioned creditors of medical supplies, while 7.1% mentioned institutional and individual debtors as what concerned management the most. The remaining 28.6% of the respondents considered all these components as equally important to management. Thus, a majority of the respondents considered inventories of drugs and medical supplies to be critical management concerns, the reason being the perishable nature, high monetary values and hence, high volume of tied up resources represented by these stocks.

4.2.6 Efficiency of working capital management

The researcher sought to find out where the respondents ranked the efficiency of working capital management in the two hospitals.

Table 2: Efficiency of working capital management in KNH and MTRH

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	2	14.3	14.3	14.3
	Average	4	28.6	28.6	42.9
	Good	7	50.0	50.0	92.9
	Very good	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Source: Case data

As shown in table 2 above, 42.9% of the respondents considered the efficiency of working capital management to be between average and poor. 57.1% felt that the management of working capital was above average. This shows a split opinion on the perception of key personnel on the efficiency of working capital management in the two institutions, meaning that indeed there was a problem worth investigating.

4.2.7 Ways of improving the efficiency of working capital management

Suggested ways in which this efficiency could be further improved included adhering to optimal working capital levels, adhering to predetermined reorder levels of drugs and medical supplies. Other suggestions included aggressively collecting outstanding debts, ensuring that policies relating to each component of working capital were in place and ensuring that proper cash flow planning was done using budgets. The respondents also suggested streamlining payments to suppliers and the establishment of effective management reporting systems as ways of improving this efficiency. Once adequate policies were in place, implementation of the same should be strictly done. This implementation would help in ensuring that institutional functions are well coordinated and operations are carried out according to the hospitals' declared mandates.

4.2.8 Challenges faced by KNH and MTRH in working capital management

The researcher sought to establish the major challenges these institutions faced in the formulation and implementation of policies relating to the management of working capital. But first it was important to establish whether the respondents acknowledged the existence of these challenges.

Table 3: Working capital policy challenges in KNH and MTRH

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	85.7	85.7	85.7
	No	2	14.3	14.3	100.0
	Total	14	100.0	100.0	

Source: Case data

The results in table 3 above show that 85.7% of the respondents acknowledged the existence of major challenges in policy formulation and implementation as far as the two institutions were concerned. The remaining 14.3% did not feel that there were serious challenges that faced these institutions. Some of the major challenges listed included high poverty levels amongst the communities served, inadequate funds from government and difficulties in controlling debtors. Poor cash flow due to waivers, exemptions and credits

posed a key challenge. The tedious procurement processes and delays in payments to suppliers were also cited. Challenges relating to management policy included difficulties in implementation of guidelines and a lack of concerted efforts to coordinate all resource components. This was partly a consequence of poor communication within the system. It also emerged that financial management was not considered by management to be very critical for mitigating operational difficulties.

However, the respondents who did not perceive of any serious challenges in this regard cited the structure of management in the current devolved system as being suitable for effective policy formulation and implementation. Thus, according to them the existence of an all inclusive policy formulation process would address possible exigencies.

4.2.9 Working capital management policies and practices at KNH and MTRH

KNH and MTRH have developed general financial management policies to guide practices including the management of working capital. The regulations translate the hospitals' broad policies relating to financial control into practical guidance. The finance committees are normally responsible for ensuring the implementation, monitoring and regular review of these policies. Overall the finance managers are charged with the responsibility of ensuring that hospital revenues, finances and assets are protected. This responsibility extends to the monitoring of financial performance against budgets and plans as may be appropriate. A major concern is that oftentimes gaps between policy objectives and policy implementation exist. The researcher therefore sought to establish the possible extent of departure between policy guidelines and normal practices with regard to the management of working capital components in KNH and MTRH.

4.3 Management of cash

4.3.1 Policies for the management of cash

The financial regulations state the finance manager's role as that of facilitating the management of cash flows by balancing inflows and outflows through the use of cash budgets. Adequate cash resources are essential for meeting the financial obligations of the hospitals, both recurrent and capital. Cash outflows comprise the day to day payment

of salaries, administrative and general operational expenses as well as the large one-off capital expenditures for the acquisition of medical equipment. Cash inflows mainly originate from government grants and cost sharing revenues. Cash is held in bank accounts as well as in form of petty cash. The regulations stipulate security measures for the cash office restricting physical access and custody of all cash holdings. The rules require that cash collections be paid promptly to the main cash office and banking be done within the shortest time possible. Cash holdings should also be kept to a minimum and must be insured at all times. Spending cash collections at source is also discouraged.

4.3.2 Awareness of the existence of policies on the management of cash

On enquiring of the respondents whether they were aware of the existence of these policy statements on the management of cash, 71.4% answered in the affirmative. The remaining 28.6% stated that they were not aware. These findings are presented in table 4 below.

Table 4: Awareness of policies on cash management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	71.4	71.4	71.4
	No	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Source: Case data

The main features of these policy statements described by the respondents include rules on petty cash reimbursement levels prescribing minimal cash holdings operated on a recoupment basis. A float of Kshs. 300,000 is normally held as cash in hand to cover contingencies at any given time. All departmental floats are assigned responsible persons who must provide supporting documents to account for all expenditures before any recoupment can be done. This is required to be done within 14 days. At the same time, all expenditures must be approved at the appropriate levels. Cash reconciliations should be done regularly and security of cash must be assured at all times. Another requirement is

that cash in transit and at the main cash office should at all times be insured. It is evident that the policy guidelines provide only a broad direction regarding the management of cash wherein the normal practice is more detailed. Hence, it emerges that there is a gap between policies and what is considered normal practice, with the latter providing more detailed procedures for the management of cash. It would be important to have clear and specific guidelines for the management of all possible aspects of cash and short term investments if more efficient management of cash is to be realized.

Contributions made by the respondents to the management of cash include advising management and divisional chairmen on management of floats and thus, ensuring that all petty cash is accounted for regularly. Some of the respondents have also been involved in the collection and surrender of cash to the main cash office as well as ensuring prompt banking of the same. Other roles include ensuring cash books are updated accurately and on a timely basis for purposes of decision making. Some respondents have also carried out monthly cash reconciliations as well as preparation of cash budgets and daily cash summaries. It can therefore be construed that the respondents are sufficiently knowledgeable to give valuable input on the cash management practices in the two institutions. A majority (57.1%) of the respondents state that the finance manager is responsible for the more critical role of deciding on the amount of cash floats for the hospitals at any particular time (See table 5 below).

Table 5: Responsibility for decisions on cash float levels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The Board	3	21.4	21.4	21.4
	The hospital director	3	21.4	21.4	42.9
	Finance manager	8	57.1	57.1	100.0
	Total	14	100.0	100.0	

Source: Case data

Hence, it is clear that the finance manager plays a central role in the management of cash in the two referral hospitals. This role is further emphasized considering that all the respondents ascribed the role of cash flow planning and budgeting to the finance manager as well. Cash budgets are prepared regularly with a majority (57.1%) of the respondents indicating that it is done at least monthly. These results are presented in table 6 below.

Table 6: How frequently cash budgets are prepared

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than a month	5	35.7	35.7	35.7
	Monthly	3	21.4	21.4	57.1
	After every three months	4	28.6	28.6	85.7
	Annually	2	14.3	14.3	100.0
	Total	14	100.0	100.0	

Source: Case data

4.3.3 The main sources of cash for the hospitals

When asked to rank the main sources of cash inflows for the hospitals from the largest to the smallest, most respondents ranked government grants as being the main source, followed by cost sharing revenues and then donor funds. These results are presented in tables 7, 8 and 9 below.

Table 7: Cost sharing revenues as the main source of income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rank1	5	35.7	35.7	35.7
	Rank2	7	50.0	50.0	85.7
	Rank3	2	14.3	14.3	100.0
	Total	14	100.0	100.0	

Source: Case data

Table 8: Donor funds as the main source of income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rank1	1	7.1	7.1	7.1
	Rank2	1	7.1	7.1	14.3
	Rank3	12	85.7	85.7	100.0
	Total	14	100.0	100.0	

Source: Case data

Table 9: Government grants as the main source of income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rank1	8	57.1	57.1	57.1
	Rank2	6	42.9	42.9	100.0
	Total	14	100.0	100.0	

Source: Case data

These assertions by the respondents are supported by the figures in the appropriations accounts of the two institutions.

4.3.4 The main uses of cash by the hospitals

When asked to rank the main uses of cash by the hospitals from the largest use to the lowest, most respondents ranked personnel costs (salaries, wages and allowances) as the main causes of cash outflows. This is followed by purchase of drugs, utilities and other expenses respectively. This is also reflected in the financial statements. The results alluded to above are presented in tables 10, 11, 12 and 13 below.

Table 10: Salaries and wages as main uses of cash

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rank1	12	85.7	85.7	85.7
	Rank2	2	14.3	14.3	100.0
	Total	14	100.0	100.0	

Source: Case data

Table 11: Drugs and supplies as main uses of cash

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rank1	2	14.3	14.3	14.3
	Rank2	12	85.7	85.7	100.0
	Total	14	100.0	100.0	

Source: Case data

Table 12: Utilities as main uses of cash

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rank3	9	64.3	64.3	64.3
	Rank4	5	35.7	35.7	100.0
	Total	14	100.0	100.0	

Source: Case data

Table 13: Other expenses as main uses of cash

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rank3	5	35.7	35.7	35.7
	Rank4	9	64.3	64.3	100.0
	Total	14	100.0	100.0	

Source: Case data

Once again, these findings seem to be in line with the figures provided in the financial reports that show personnel costs and purchases of drugs and medical supplies as the main uses of the hospitals' cash resources.

4.3.5 Short term investments

Treasury management activities in KNH and MTRH comprise of banking arrangements, cash flow management, investment of short-term funds and capital financing. Senior management makes decisions on borrowings, investments or financing. The finance manager is required to make regular reports to the board for purposes of monitoring compliance with approved policies. This approval is normally done by a finance committee which acts on behalf of the board.

However, these hospitals do not ordinarily make short term investments. In any case, the nature of their operations has meant that they seldom end up with operating surpluses which can be invested. Instead they have almost consistently experienced cash deficits, which have precipitated liquidity problems. These scenarios can be gleaned from the institutions' financial reports.

In support of these observations, a majority of the respondents (92.9%) in this study confirm that the hospitals never face situations where they have idle funds. These findings are shown in table 14 below.

Table 14: Whether the hospitals sometimes have idle funds

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	7.1	7.1	7.1
	No	13	92.9	92.9	100.0
	Total	14	100.0	100.0	

Source: Case data

In most cases however, the hospitals operate fixed deposit accounts where surplus funds are kept and through which other transactions are carried out. Despite the government requirement that these institutions invest any surplus funds in treasury bills and bonds KNH at one time placed short term deposits in commercial banks such as Euro Bank Ltd and Housing Finance Company of Kenya (HFCK). This goes to show that it is not uncommon for these institutions to pursue practices that are not backed by policy stipulations.

4.3.6 The importance of cash management to the efficiency of working capital management

When asked about their views on whether the management of cash was important to the efficiency of working capital management in the two hospitals, a majority (92.9%) answered in the affirmative. A paltry 7.1% underplayed such a role as can be observed from table 15 below.

Table 15: If cash management is important to working capital management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	92.9	92.9	92.9
	No	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Source: Case data

The reasons given for the perceived important role of cash management included the observation that all transactions revolved around cash, whether it is payments for purchases in order to maintain adequate stocks or payment of salaries and wages to employees in order to ensure continuation of services. Another observation was that unlike other resources, cash could easily be lost if not managed well. The liquidity of cash enables the hospital to provide services and to meet contingent needs.

4.3.7 Challenges faced in the management of cash

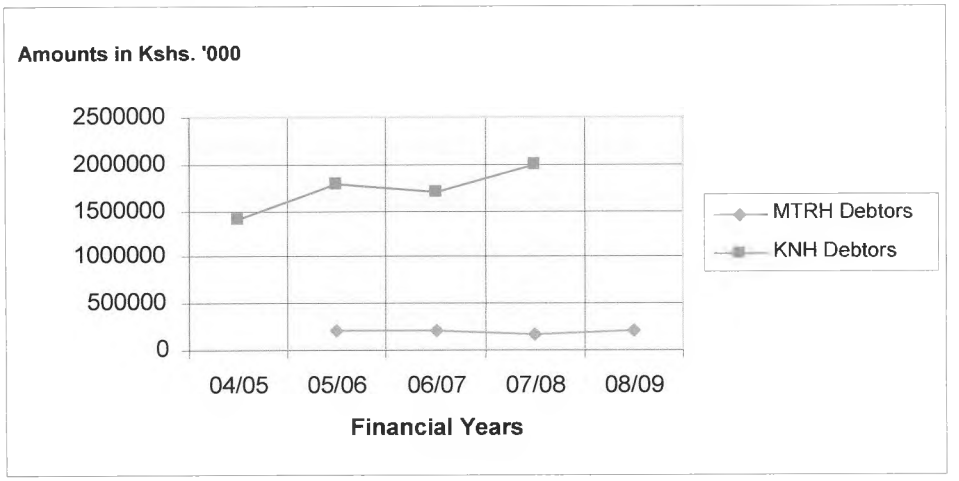
The respondents gave the main challenge faced in the management of cash as net cash deficits occasioned by cash outflows far exceeding cash inflows. Whereas treasury regulations require that any surplus funds be invested in treasury bills and bonds, the requirement for these institutions to remit any surpluses of funds allocated to them or revenues generated at the end of a financial year to a consolidated fund at the treasury is detrimental to the operating activities of these hospitals. Thus, the hospitals are denied the use of funds which had been earmarked for specific recurrent and capital expenditure items. These government policy requirements have ensured that the hospitals continue facing acute liquidity problems without having accumulated surplus funds from which they can draw to meet operational financial needs. Another problem cited was theft and misappropriation by employees charged with collection and custody of cash.

4.4 Management of trade debtors

4.4.1 Trade accounts receivable volume trends in KNH and MTRH

KNH results show a trend in trade accounts receivable that is steadily rising especially in the periods subsequent to the 2006/07 financial year. This is an unfortunate trend for which all efforts must be made to reverse the trend so as to prevent any further decline. MTRH on the other hand shows a stable performance in debt management. However, both institutions still have a significant level of debts that that are outstanding. This has adversely affected their liquidity. These findings are presented in the figure below.

Figure 9: KNH and MTRH trade accounts receivable volume trends



Source: KNH and MTRH financial statements for financial years 2004/05 to 2008/09

4.4.2 Policies on the management of debtors

A major challenge to the finance managers of KNH and MTRH is the management of debtors. The nature of public health care in Kenya precipitates buildups of huge non-performing debt portfolios as a consequence of non-discriminatory government policies on care provision for the mostly poor patients. Through waivers and exemptions, KNH and MTRH loose significant amounts of revenues which would otherwise have boosted their liquidity. The finance departments have ultimate responsibility for ensuring that the hospitals receive payment in full for amounts invoiced. Invoices will normally be dispatched to customers within three days of receipt, or returned for correction or amendment if an error has been made thereon. Having raised an invoice for services rendered, or to be rendered, the hospitals expect all invoices to be paid in accordance with billing terms as set out on the invoices. The finance departments will chase debts during the year whereby clients who do not pay for invoiced services face possible debt recovery measures and other sanctions. Such measures may involve debt-collection agencies and the seeking of redress through solicitors and the courts if such actions are deemed to be cost effective.

Policies on management of debtors stipulate that sales invoices must be raised in a timely fashion in respect of income due to the hospital. All invoices so raised must also be on

official hospital documents. Prompt and effective action must be taken to collect overdue debts in accordance with specified credit arrangements. These credit arrangements indicate the periods within which different types of invoices must be paid. All outstanding debts must be monitored and regular reports made to management. In the event that specific debts remain uncollected even after recovery efforts have been made, requests to write off such debts must be referred to the hospital directors for submission to the finance committees for consideration. The boards, with the advice of solicitors may then decide to write off the debts.

4.4.3 Awareness of the existence of policy statements on the management of debtors

When asked about their awareness of the existence of written policy statements on the management of debtors, most of the respondents (92.9%) indicated that they were aware. These findings are presented in table 16 below.

Table 16: Awareness of debt management policies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	92.9	92.9	92.9
	No	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Source: Case data

The respondents went on to mention the key elements of these guidelines as including the signing of annual service contracts with clients, having in place a special debt collection unit and establishing targets for minimum deposit requirements graduated on client history. Another feature mentioned was the requirement for payment periods of 30 days from the date of the invoice within which the clients are required to make good their obligations. As a rule, clients are required to deposit at least 80% of the outstanding amount if they do not as yet have the full money to offset their bills on discharge from the hospitals. The respondents also mentioned that the waiver and credit forms would normally contain the minimum requirements and guidelines.

However, these policies may not have been very effective because in many cases debts to the hospitals are secured against weak collateral such as mobile phones, national identity cards and commitment letters. The financial policies and regulations do not also provide for measures like factoring and invoice discounting as ways of liquidating long overdue debts and to free tied up cash resources. It seems therefore, that the hospitals have weak debt management systems.

4.4.4 Responsibility for deciding which clients are offered credit

From the observations made, it appears the role of the finance managers are somewhat limited in as far as decisions over which clients should get credit are concerned. Most respondents ascribe the responsibility for making this crucial decision to other persons including selected waiver committees, social workers and respective nurse managers who normally are in charge of the various hospital wards.

Table 17: Responsibility for credit appraisal of clients

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The Board	1	7.1	7.1	7.1
	The hospital director	1	7.1	7.1	14.3
	Finance manager	4	28.6	28.6	42.9
	Other - Waiver committees, social workers, etc	8	57.1	57.1	100.0
	Total	14	100.0	100.0	

Source: Case data

Table 17 above summarizes these findings where 57.1% of the respondents stated that other persons besides the finance manager normally performed the credit appraisals on clients. This apparently goes against policies which stipulate that the finance managers, under the directors of administration and finance are responsible for implementing credit arrangements and deciding the periods within which different types of invoices must be paid.

4.4.5 Credit evaluation of clients

Following on from the question on who decides which clients get credit, the researcher sought from the respondents their views on whether some form of credit appraisal was ordinarily carried out on potential clients. As shown in table 18 below, a majority (57.1%) of them answered in the affirmative.

Table 18: Whether credit evaluation of potential clients is done

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	57.1	57.1	57.1
	No	6	42.9	42.9	100.0
	Total	14	100.0	100.0	

Source: Case data

One explanation given in this regard was that management had put in place workable policies to cater for this process. This seemed rather vague, but could suggest that the stipulations were not very clear to the respondents. Other respondents simply mentioned that there were credit policy guidelines in place, without being specific. The respondents who said that the procedures were not carried out explained that the waiver and credit processes involving evaluation of creditworthiness of clients was ordinarily initiated after services had been provided, meaning that this could not possibly be a useful tool for assessing potential clients.

4.4.6 The point at which clients are expected to pay for services provided

The researcher sought to establish at what point during the treatment process clients were expected to pay for services provided. As shown by figures in table 19 below, most respondents (50%) indicated that clients were expected to make payments as services were being provided.

Table 19: Point when clients are expected to pay for services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	On registration or admission before treatment stars	4	28.6	28.6	28.6
	During the process of treatment	7	50.0	50.0	78.6
	After treatment services have been rendered	1	7.1	7.1	85.7
	Other	2	14.3	14.3	100.0
	Total	14	100.0	100.0	

Source: Case data

Some cash deposit would normally be required on admission and this could explain why some respondents (28.6%) indicated that payment should be made on admission. The aim of these progressive payments is to minimize situations where patients complete their treatments with most of their bills still outstanding.

A most undesirable situation would be where most of the hospital revenues from clients were not received when due. Thus, the researcher sought to establish what levels of these revenues remained due by the time when they should have been received. As shown in table 20 below, 71.4% of the respondents indicated that over 90% of the revenues were not normally received when due. This portrays an uncertain liquidity situation for these hospitals.

Table 20: Percentage of revenues not received when due

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11-20%	1	7.1	7.1	7.1
	21-30%	3	21.4	21.4	28.6
	31-40%	6	42.9	42.9	71.4
	Above 41%	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Source: Case data

4.4.7 Collection of overdue debts

Given that a large portion of hospital revenues are not received when due, there is a great need for aggressive collection of debts. According to most respondents (71.4%), this responsibility is vested in the credit control section. The remaining respondents see this as the responsibility of the legal department. These findings are summarized in table 21 below.

Table 21: Responsibility for collecting overdue debts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Legal officer	4	28.6	28.6	28.6
	Credit control section	10	71.4	71.4	100.0
	Total	14	100.0	100.0	

Source: Case data

4.4.8 Reminders to clients on outstanding debts

In many cases the legal departments are not involved in debt collections since clients respond to demand notices sent to them by the credit control section. These demand notices would normally threaten legal ramifications should the debtors fail to respond in good time. According to the respondents, most reminders are done by way of letters to clients (57.1%) before follow ups are done by way of telephone communication (14.3%) or personal visits 7.1%). Table 22 below presents these findings.

Table 22: How reminders to clients to pay debts is done

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Letter to staff or Client	8	57.1	57.1	57.1
	Personal communication/visit to staff or client	1	7.1	7.1	64.3
	Telephone communication to staff/client	2	14.3	14.3	78.6
	All the above	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Source: Case data

In the event that these reminders to clients are not heeded, the normal practice would be to involve the legal office. At the same time, a notice of credit termination would be given.

4.4.9 Debtors ageing analysis

Debtors ageing analysis is normally done by institutions to appraise the performance of their debt portfolios. All the respondents in this research indicated that debtors ageing analysis was normally done at their institutions, with a majority (57.1%) indicating that this exercise was the responsibility of the finance managers. A further 35.7% indicated that other persons besides the finance managers were responsible, specifically section heads (heads of expenditure and creditors sections) who were the ones directly responsible. These findings are given in table 23 below.

Table 23: Person responsible for ageing analysis

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The Board	1	7.1	7.1	7.1
	Finance manager	8	57.1	57.1	64.3
	Other – Section heads, etc	5	35.7	35.7	100.0
	Total	14	100.0	100.0	

Source: Case data

When asked further how frequently this ageing analysis was done, all the respondents indicated that it was done on a monthly basis. This would be adequate as it is customary in the researcher's opinion.

4.4.10 Sufficiency of securities provided as collateral for debts by clients

Ordinarily some form of security is provided where patients are not able to immediately raise the required money to defray their bills. These securities include land title deeds, motor vehicle logbooks, national identity cards as well as personal goods. Such goods include electronics, particularly where the outstanding amounts are not very significant. When the researcher enquired from the respondents whether they considered these collaterals to be adequate in terms of assuring collectability of the respective debts, a majority (85.7%) answered in the negative. The remaining 14.3% felt that the collateral provided were sufficient. Table 24 below presents these findings.

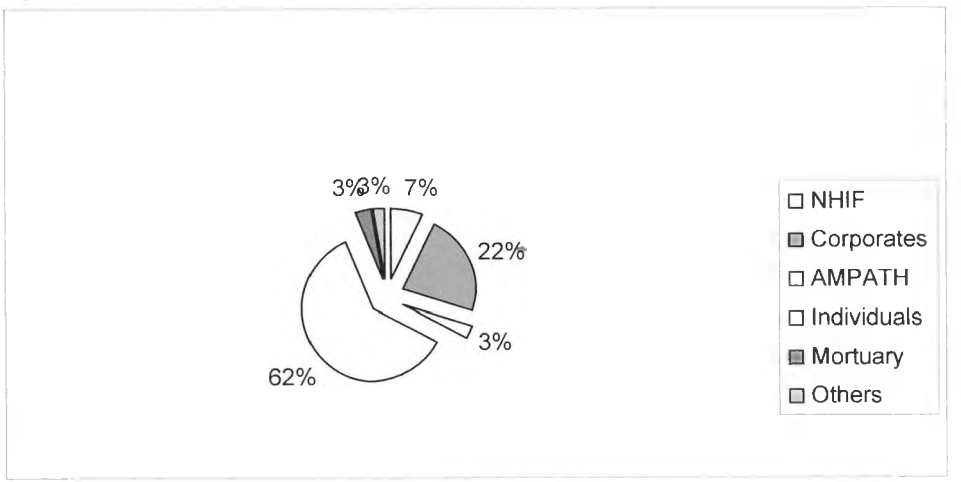
Table 24: Whether collaterals securing debts are sufficient

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	14.3	14.3	14.3
	No	12	85.7	85.7	100.0
	Total	14	100.0	100.0	

Source: Case data

Explanations given by those who felt that these collaterals were not sufficient included the view that these practices in any case contradicted the policy of government on provision of health care for all. This highlights the dilemma faced by many public hospitals which are expected to provide affordable services sometimes to patients who have no money to pay for these services, yet the same hospitals are required to survive in the face of ever reducing financial support from the government. A suggestion was made that securities provided ought to be redeemable in the sense that legal transfers are executable. For instance, legal charges should be instituted on land title deeds and signed transfer documents should be provided in the case of motor vehicle logbooks. Additionally, a search with the respective authorities and physical inspection of the assets would ensure that these securities were adequate, especially where outstanding amounts are material. Most of these securities are provided by individual debtors of the hospital. As illustrated in the figure below, this category of debtors usually comprise the largest group of hospital trade debtors.

Figure 10: MTRH composition of trade accounts receivable in financial year 2008/09



Source: MTRH financial statements for financial year 2008/09

4.4.11 Challenges faced in the management of debtors

When asked what challenges the hospitals faced in the management of debtors, the main challenges mentioned by the respondents included the vulnerability of clients due to

rampant poverty amongst the communities forming the client base of the two hospitals. This coupled with the government policy on universal health care and the consequent attitude of clients that health care services were "free" posed a serious challenge in the management of the receivables. In the past, debtors, sometimes with encouragement from some government officials have demanded their collateral back. During electioneering periods for instance, it is not uncommon for calls to be made demanding that national identity cards be returned to their owners irrespective of whether the outstanding debts have been settled or not. The rationale behind this argument is that every citizen has a constitutional right to cast their vote. Other challenges mentioned include poor record keeping and non-redeemable collaterals.

4.4.12 How the management of debtors can be improved

Suggested ways of improving debt management in these hospitals included setting up clear and comprehensive guidelines and aggressive implementation of the same. However, management apathy was cited as a key impediment to the proper formulation of these guidelines. There is therefore a need for change of attitude on the importance attached to this exercise by the management. Nevertheless, all the respondents agreed that debt management was an important factor in the management of working capital in general. There are various reasons given for this. Firstly, that accounts receivable is a major factor in cash flow and liquidity management. Secondly, accounts receivable if not carefully managed can hold significant levels of the hospital resources and thereby curtail normal operations. Ways in which these respondents have been involved in the management of debtors include updating client records, debtors analysis, reporting to management on suggested improvements as well as following up on collections.

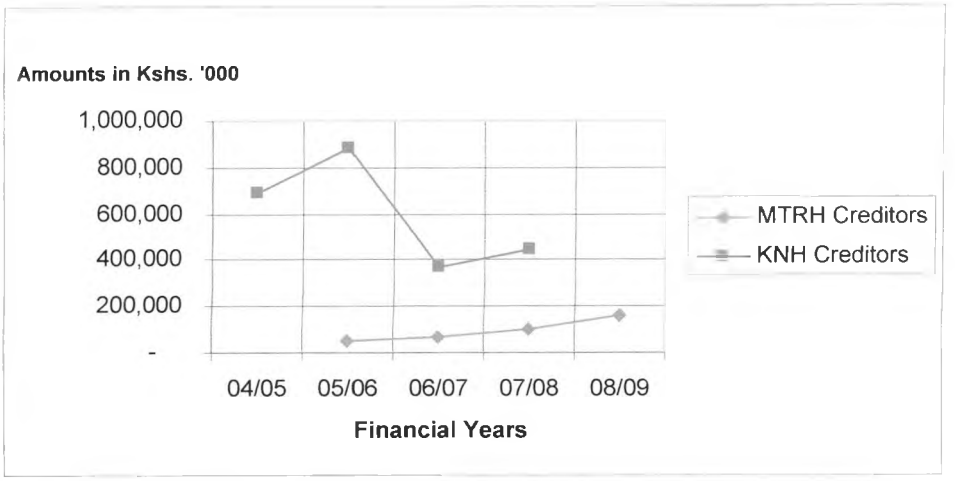
4.5 Management of creditors

4.5.1 Trade accounts payable volume trends in KNH and MTRH

KNH and MTRH have a high level of trade accounts payable. As can be seen from the figure below, apart from a sudden decline between financial years 2005/06 and 2006/07 for KNH, both institutions are experiencing a steadily rising trend. This is not a good

indication in as far as the management of working capital in these institutions is concerned.

Figure 11: KNH and MTRH trade accounts payable volume trends



Source: KNH and MTRH financial statements for financial years 2004/05 to 2008/09

4.5.2 Policies on management of creditors

The management of creditors is important in KNH and MTRH due to the critical nature of drugs and medical supplies. Besides acquisitions of drugs and other medical supplies through the Kenya Medical Supplies Agency (KEMSA) which channels subsidized supplies to the government hospitals countrywide, KNH and MTRH rely to a large extent on supplies from private sector pharmaceuticals and medical equipment suppliers. This is particularly due to the needs of the private wings for the more costly non-generic drugs. The bulk of the supplies by KEMSA comprise of generic drugs which are of lower cost and therefore more targeted at the general hospital wards where most of the patients are poor.

MTRH applies the government procurement rules which are implemented through a tendering code of practice and a procurement manual stipulating procurement policies, strategies and operational guidelines such as authorization limits, competitive tendering processes and accounts payable. Nevertheless, lack of sufficient cash to pay suppliers within the credit terms stipulated could dent supplier goodwill to the detriment of the

hospital. MTRH operates an ageing analysis system but seldom applies it to the letter since some critical suppliers often insist on cash terms due to the hospital's precarious cash situation. This practice ends up disenfranchising other suppliers with long overdue accounts and creates room for unethical conduct by the parties concerned, aimed at speeding up account settlements.

4.5.3 Awareness of the existence of policies on the management of creditors

The researcher sought to find out whether the respondents were aware of the existence of policies guiding the management of creditors. Interestingly, 85.7% answered in the negative while only 14.3% answered in the affirmative. This scenario means that it is probable that there were no specific policies for the management of creditors. The written statements generally cover expenditure requirements and procurement procedures. Table 25 below presents these findings.

Table 25: Awareness of credit management policies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	14.3	14.3	14.3
	No	12	85.7	85.7	100.0
	Total	14	100.0	100.0	

Source: Case data

The respondents who gave an affirmative answer mentioned some of the features of these statements as the existence of deadlines for remitting statutory deductions and ageing analysis being used as a basis for paying suppliers. Where respondents said that no explicit policies existed, one explanation given was simply that management had not put one in place. Again, it was indicated that the urgency of the supplies needed was a factor in deciding which suppliers would be paid first irrespective of how long such invoices had remained outstanding. In other words, that there were no specific measures stipulated. Another explanation given was that credit purchases greatly depended on the

terms given by the particular supplier. Some for instance would deliver much needed supplies and expect cash on delivery.

Suitable policy measures suggested by the respondents included strict adherence to an ageing schedule in paying suppliers where older accounts would be given priority. Statutory remittances should also be made within the stipulated time frames to avoid possible penalties for defaulting. These measures should all be captured in the policy framework.

Some of the ways in which the respondents had been involved in the management of creditors included advising management on existing challenges through internal management reports, preparation of aged creditors' schedules and generally keeping of accurate records. Some of the respondents also indicated that they had been involved in the analysis and interpretation of reports for management as well as preparing payments to suppliers.

4.5.4 Percentage of creditors which are not paid when due

The respondents were asked to indicate what levels of debts of the hospitals were not normally paid when they should have been paid. As shown in table 26 below, 71.4% of the respondents felt that over 90% of the debts were not normally paid when due. This perception portrays an unfavorable prospect for short term liquidity of the hospitals and the consequential erosion of supplier goodwill.

Table 26: Percentage of payments to suppliers not paid when due

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11-20%	3	21.4	21.4	21.4
	21-30%	1	7.1	7.1	28.6
	31-40%	7	50.0	50.0	78.6
	Above 41%	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Source: Case data

A large percentage (71.4%) indicated that suppliers of the hospitals do not ordinarily carry out credit appraisal of the institutions prior to making supplies. These results are given below in table 27.

Table 27: Whether credit evaluation by suppliers is done

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	28.6	28.6	28.6
	No	10	71.4	71.4	100.0
	Total	14	100.0	100.0	

Source: Case data

Reasons given for the above scenario include the view that possibly such information on whether this appraisal is done by suppliers or not is not being communicated to the institutions. Incidentally also, the awarding of supply tenders depend on the history of individual suppliers, and this possibly impinges on the kind of trade relationships they will end up having with these institutions. Thus, such relationships preclude the requirement for these hospitals to provide some form of collateral before credit is provided. Instead, agreements are signed with suppliers setting limits for supplies and payment periods.

4.5.5 Period within which payments to creditors are made

When asked at what point in time after the invoice date suppliers of goods and services are paid, 64.3% of the respondents indicated that this is done within 90 days, with those indicating that payments are made within 60 days being 50%. A summary of these findings is given in table 28 below.

Table 28: Period within which suppliers are paid after invoicing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Within 0-30 days	2	14.3	14.3	14.3
	Within 31- 60 days	5	35.7	35.7	50.0
	Within 61-90 days	2	14.3	14.3	64.3
	Within 91 - 120 days	1	7.1	7.1	71.4
	When funds are available	3	21.4	21.4	92.9
	Other	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Source: Case data

It is customary for organizations to carry out an ageing analysis as a way of monitoring their trade account payables and as a guide to the order of paying suppliers. When asked whether this is carried out at the two referral hospitals, a majority of the respondents (92.9%) answered positively whereas only one respondent (7.1%) answered negatively. These findings are given in table 29 below.

Table 29: Whether creditors ageing analysis is normally done

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	92.9	92.9	92.9
	No	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Source: Case data

The respondents indicated that the finance manager is normally the one responsible for carrying out this exercise, with 92.9% of them stating that ageing analysis is normally carried out a least once in a month at their institution. This is shown in table 30 below.

Table 30: How often creditors ageing is done

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than a month	1	7.1	7.1	7.1
	Monthly	13	92.9	92.9	100.0
	Total	14	100.0	100.0	

Source: Case data

4.5.6 Liaising with suppliers

In a hospital setting, it is very important to maintain good trade relationships particularly with key suppliers. Hence, the role of liaising with these suppliers is crucial if their goodwill is to be maintained at all times. When the researcher sought to establish where this responsibility lay, most respondents (42.9%) indicated that the supplies and procurement manager was the one responsible. This is well enough since this is traditionally the role of procurement personnel who have acquired formal training in procedures for dealing with, and transacting with suppliers according to set rules and regulations. These findings are presented in table 31 below.

Table 31: Responsible for liaising with suppliers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The department/section head	3	21.4	21.4	21.4
	The finance manager	2	14.3	14.3	35.7
	The supplies manager	6	42.9	42.9	78.6
	Other	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Source: Case data

As a matter of practice, this liaison process is carried out through written communication, telephone conversations and, where necessary, through personal visits.

4.5.7 Short term loans

It is not common to find public hospitals utilizing debt financing in Kenya. However, with an ever increasing shortfall in operational funding, the role of this form of financing is likely to gain prominence. Thus, the researcher sought to know from the respondents whether their institutions used short term debt financing from banks or such other financial institutions. 78.6% of the respondents answered in the affirmative, stating that bank overdrafts would normally be obtained by the institutions occasionally to bridge financing gaps. These results are given below in table 32.

Table 32: Whether short term loans from banks were obtained

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	78.6	78.6	78.6
	No	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Source: Case data

These overdrafts were ordinarily obtained for purposes of meeting working capital requirements such as paying off key suppliers when this was in fact needed to ensure that crucial services were not interrupted.

4.5.8 Importance of accounts payable management to the efficiency of working capital management

The researcher sought to establish the perception of the respondents regarding the importance of the management of trade payables to the efficiency of working capital management. As shown in table 33 below, most respondents (78.6%) considered the management of trade accounts payable an important contributor to the general efficiency of working capital management in these hospitals.

Table 33: Whether creditors management is important to working capital management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	78.6	78.6	78.6
	No	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Source: Case data

One reason given for this importance is that accounts payable have a major bearing on stock levels considering variable lead times that may be dependent on the nature of relationships with suppliers. Oftentimes the hospitals may be in need of urgently needed supplies at times when they could be facing temporary cash flow problems. Hence, these hospitals would need to have a good credit history in order to benefit from credit facilities.

4.5.9 Challenges faced in the management of trade accounts payable

Some of the challenges faced in the management of accounts payable include inadequate cash for making payments to suppliers. This inadequacy may occur due to unreliable cash flows related to high poverty levels amongst the clients of the hospitals and delays in the disbursements of grants from the government. These cash flow uncertainties could lead to stock outs which in turn could potentially be fatal for patients who may be critically ill. Another challenge cited is poor keeping of records particularly considering that some accounts remain overdue for prolonged periods of times. When it comes to clearing such accounts, difficulties arise when sometimes invoices or other supporting documents are not obtainable.

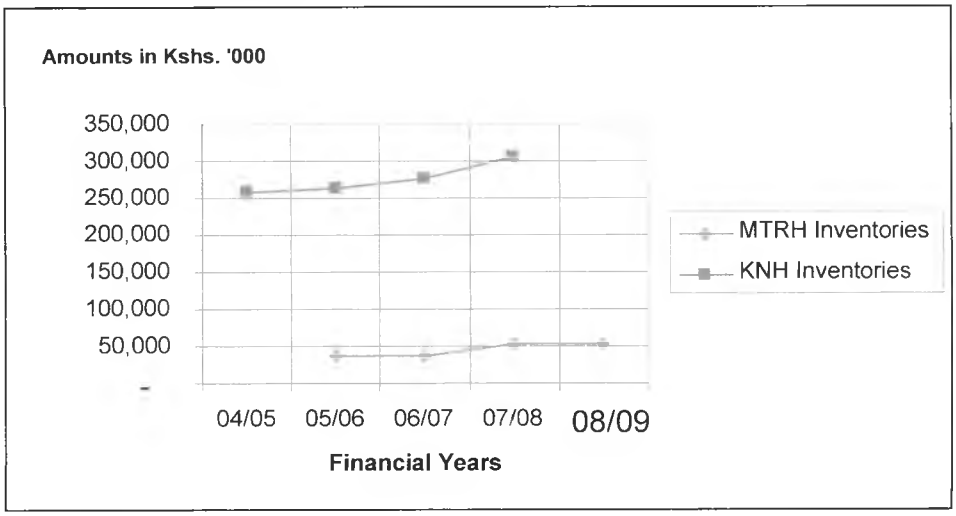
4.6 Management of inventory

4.6.1 Inventory volume trends in KNH and MTRH

From an analysis of the figure below, the trend in the volume of inventory is showing a steady rise in the case of KNH. In the case of MTRH there seems to be stabilization in the level of stocks held especially in the periods subsequent to financial year 2007/08.

For KNH, this indicates a worsening stock management situation as excessive holdings can be detrimental to the hospital's operations. This situation needs to be reversed. MTRH needs to further optimize stock management and ensure that no unnecessary buildups are witnessed in subsequent years.

Figure 12: KNH and MTRH inventory volume trends



Source: KNH and MTRH financial statements for financial years 2004/05 to 2008/09

4.6.2 Policies on the management of inventory

The financial regulations state that the security of assets is the responsibility of the departments controlling them. By way of keeping track of each asset, proper account of security devices, markings and serial numbers should be taken. Each department is required to carry out an inventory count at least once each year and an inventory list kept up to date at all times for purposes of security of the assets, control of usage as well as of insurance. Inventory record sheets are to be controlled and maintained by the departments and summaries returned to the finance managers as part of the year-end reviews.

The major items of inventory in KNH and MTRH are medicinal drugs. Drugs often have limited shelf lives yet the consequences of dispensing expired drugs are dire, both for the patients and the hospitals' reputations. Drugs are also very expensive and the hospital can

hardly afford losses due to physical deterioration or expiration. This makes the management of inventory at the two institutions very critical. Even the other components of inventory including dressings and theatre supplies, lab reagents and x-ray supplies, food and rations, supplies for production and gases are high value commodities which tie up a lot of cash and are also affected by obsolescence and deterioration.

Storage space too is scarce at the hospitals. In any case, bed space is considered more important in a hospital setup and would be given priority over storage space. Thus, there are costs associated with improper management of inventory including procurement costs, stock holding costs, opportunity cost of tied up cash and the more serious shortage costs that could mean loss of lives in view of the tedious government procurement processes.

KNH and MTRH manage by making departmental heads responsible for establishing adequate arrangements for custody and control of stocks and stores within their departments. These departments also forward proposed annual procurement plans and monthly requisitions for consolidation into the hospital wide procurement plans for bulk purchasing. This consolidation is done by the procurement managers in cooperation with the finance managers, who are also ultimately responsible for annual inventory counts for financial reporting purposes.

Proper Management of inventory would entail consideration of the uncertainties of demand and lead times for each category of stock and suppliers. Proper management would also ensure optimum stocks are held, which minimize related costs while maximizing opportunities for gaining bulk discounts.

4.6.3 Awareness of the existence of policies on inventory management

When asked about the existence of policies guiding the management of inventory in the two referral hospitals, a majority (71.4%) indicated that they were not aware of them. This is probably because the financial regulations are not very clear on this area or they are not applied in common practice. Table 34 below presents these findings.

Table 34: Awareness of inventory management policies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	28.6	28.6	28.6
	No	10	71.4	71.4	100.0
	Total	14	100.0	100.0	

Source: Case data

One common problem cited is the inadequacy of stocks in meeting requirements. This has often frustrated efforts to put comprehensive policies in place. Some of the suggestions made for suitable stock policies include the use of stock management systems that incorporate economic order quantities, specified re-order levels and the use of just-in-time ordering processes so as to avoid emergency purchases and at the same time improve on services.

In most of the cases, according to the respondents, the section heads or departmental heads are ordinarily responsible for the management of stocks of drugs, dressings, medical equipment, as well as of foods and rations. Thus, a devolved system is in place whereby the supplies and procurement manager is no longer the one ultimately bearing this responsibility.

Some of the ways in which the respondents have been involved in the management of inventory include annual and surprise stock counts, as well as stock valuation and control.

4.6.4 Factors determining inventory levels

The researcher sought to find out from the respondents what they considered to be determinants of inventory levels. Inventories held by organizations mean costs to such organizations. Such costs include stock holding costs. Ordering costs and costs associated with stock-outs too are important considerations when determining the level of stocks to be held by a hospital at any particular time. The respondents gave various factors among them lead times and usage. Other determinants included nature of stock, urgency and

level of demand for stock, ease and availability of supply and frequency of use. Another determinant is the value and shelf life of stock.

4.6.5 Use of formal inventory control models

When asked whether the hospitals made use of any inventory control models, all the respondents answered in the negative. Therefore it is apparent that the hospitals do not ordinarily apply control methods that can serve as a guide to better management of their inventories. However, most respondents (57.1%) indicated that the hospitals had in place some form of plans for ensuring that stocks were replenished when needed. This, they claimed, was normally done so as to avoid additional costs on re-ordering, delivery and handling of such stock. Table 35 below presents these findings.

Table 35: Existence of plans to ensure adequate re-stocking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	57.1	57.1	57.1
	No	6	42.9	42.9	100.0
	Total	14	100.0	100.0	

Source: Case data

Some of these arrangements include the development of annual procurement plans that draw from each section's contribution on planned requirements projected from what is considered normal monthly usage and planned expansion. Monthly requests are also provided for especially where the nature of usage means that forward planning is not entirely tenable. In the tendering process, suppliers can also be implored to supply within specified periods of time.

4.6.6 Making use of purchase discounts

When asked whether the hospitals ordinarily take advantage of discounted price opportunities, most respondents (78.6%) indicated that the institutions would sometimes go for bulk purchase discounts whereas they would not ordinarily benefit from trade

discounts. 57.1% indicated that the hospitals do not ordinarily benefit from trade discounts. High demand levels have meant that discounts on bulk purchasing are more readily obtainable, thus saving the institutions' resources. These results are presented below.

Table 36: Whether bulk purchase discounts are offered by suppliers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	78.6	78.6	78.6
	No	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Source: Case data

Table 37: Whether trade discounts are offered by suppliers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	42.9	42.9	42.9
	No	8	57.1	57.1	100.0
	Total	14	100.0	100.0	

Source: Case data

4.6.7 Carrying out of inventory counts

When asked whether their institutions carried out regular inventory counts, all the respondents answered in the affirmative. This is an important exercise for controlling inventory (preventing loss through theft or other forms of deterioration), establishing stock levels for accounting purposes and the determination of cost of sales. The researcher then set out to establish how frequently this exercise was conducted at the two institutions. A majority of the respondents (78.6%) stated that it was normally done on a monthly basis whereas the rest (21.4%) indicated that this was done annually. The table below presents these findings.

Table 38: Frequency of carrying out inventory counts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Monthly	11	78.6	78.6	78.6
	Annually	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Source: Case data

4.6.8 Surveys to identify obsolete stock

In a hospital setting, it is very important to ensure that drugs and other medical supplies with limited shelf lives are disposed off either by burying in a deep pit (for some highly toxic compounds) or incinerated. The consequences of dispensing expired drugs are dire, both for the patients and the institutions as bodies corporate. The researcher hence sought to establish whether KNH and MTRH ordinarily conducted surveys to identify obsolete (expiring or already expired) inventory items. As shown by the findings presented below, 100% of the respondents answered in the affirmative.

Table 39: Whether regular surveys are done to identify obsolete stock

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	14	100.0	100.0	100.0

Source: Case data

This obsolete stock is stock that is either expired, about to expire, deteriorated, contaminated, broken or technologically out dated.

When further asked how frequently these surveys were carried out, most of the respondents (71.4%) indicated that they were normally done annually whereas others indicated that they were carried out monthly (21.4%) and quarterly (7.1%). Just like the normal inventory counts, it seems like different sections or departments normally carry on their activities independently of the other sections or departments. This therefore shows that either there are no clear policy guidelines on these issues or the personnel

responsible for the exercises operate outside the stipulated regulations. The table below presents these findings.

Table 40: Frequency of carrying out surveys to identify obsolete stock

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Monthly	3	21.4	21.4	21.4
	After every three months	1	7.1	7.1	28.6
	Annually	10	71.4	71.4	100.0
	Total	14	100.0	100.0	

Source: Case data

Once obsolete stock is identified and a report to that effect completed, a constituted board of survey which is charged with this responsibility may make recommendations to management for this stock to be written off. Once written off, bonding or appropriate disposal mechanisms are instituted depending on the nature of stock. Drugs are normally destroyed as indicated above or, in some exceptional cases returned to the manufacturer for appropriate disposal. Equipment is ordinarily disposed off at market price or scrapped depending on whether they are serviceable or not.

4.6.9 Challenges faced in the management of inventory

Space for storing medical supplies and equipment is a common problem in many health care institutions considering that bed space is considered a priority. Incidentally space for expansion of bed capacities for both KNH and MTRH is a serious challenge since increased rate of increase in demand for inpatient care has far outstripped the expansion rates of these institutions over the recent years. In order to conceptualize the extent of this affliction at the two institutions, the researcher sought to establish from the respondents whether they recognized the existence of lack of storage space for the hospitals' numerous stock items. Most of the respondents (78.6%) indicated that this problem did indeed exist. The rest of the respondents (21.4%) did not consider a lack of storage space for stock a problem as such. The table below presents these findings.

Table 41: Problem of lack of storage space for inventory

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	78.6	78.6	78.6
	No	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Source: Case data

Some of the ways in which this problem of lack of storage space for inventory can be addressed is by ensuring proper stock management procedures are adhered to. Another measure would be to keep the extra stock in undesignated areas. For instance, additional temporary pre-fabricated storage structures could be set up when needed. For drugs in particular, special storage areas that are secure and conducive should be created.

Other challenges mentioned include loss of inventory through pilferage, unreliable records, uncoordinated stock management systems, inadequate supplies and poor supervision of staff that are responsible for the custody of inventory.

4.6.10 Importance of inventory management

In order to establish the importance attached to the management of the inventory component of working capital, the researcher sought the views of the respondents on whether they considered the proper management of inventory to be an important factor in the efficiency of working capital management. 85.7% of the respondents considered the inventory management to be an important factor whereas 14.3% of them felt otherwise. These findings are given in table 42 below.

Table 42: Whether inventory management is important to working capital management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	85.7	85.7	85.7
	No	2	14.3	14.3	100.0
	Total	14	100.0	100.0	

Source: Case data

Some of the reasons given for this importance of inventory management is it is crucial as a cost control measure and also prevents unnecessary stock purchases. Proper inventory management therefore helps to minimize stock holding and stock out costs, thus ensuring cash outflows are controlled.

CHAPTER FIVE

5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of findings

From the findings above it emerges that public hospitals are exposed to a myriad of factors which impinge on their ability to have sufficient working capital available to meet daily operating expenditures. These factors include the combined effect of small operating margins and lead times for suppliers to deliver orders. They also include the length of time to make sales, collect patient accounts receivable and to settle accounts payable. Other considerations in working capital management include the need to keep adequate stock of medical supplies and adequate funds to cater for unplanned exigencies. While some working capital is generated within the hospital, the major portion of hospital working capital is advanced from MOH grants through the treasury. The need for efficient working capital management is heightened by the characteristic hospital operating cycles, where there is usually an extended time lag between the provision of services (incurring of expenses and the resultant disbursements) and the final settlement on patients' accounts (receipt of cash). Hence, most public hospitals operate with cash deficits. These cash deficits are also a reduction of the cash that would otherwise be available for temporary investment by the government. Consequently, these deficits occasioned by sub-optimal management of hospital internal resources represent an opportunity cost to the public. It does not help that any surpluses outstanding by the year end are not retained by these hospitals, but are deposited into a consolidated fund of the government.

Drugs and medical supplies are the most critical components of working capital in KNH and MTRH since these ordinarily constitute a significant volume of hospital resources in the short term. This criticality is partly due to the high values and limited shelf lives associated with these items. Generally there was a perception by the respondents that the management of working capital in the two institutions was not entirely efficient. Suggestions for further improvement included the need to establish comprehensive

policies that prescribed optimal practices and then aggressively applying those policies. However, there were numerous challenges in policy formulation and implementation cited. One major challenge was the extreme poverty conditions that characterized the communities which formed the hospitals' catchment areas. This coupled with the government policies meant to ensure equity in the provision of health care and the requirement for the hospitals to remit any end year surpluses, have drastically curtailed the hospitals' cash flows. Other challenges faced include declining government support through MOH grants as the government institutes cutback measures on funding of hospitals in favor of district level health centers and dispensaries in a move towards a decentralized public health care system. Another reason for the reduced budgetary support is increased competition for government resources arising from other critical areas such as infrastructural development.

In considering the specific working capital components, it emerged that most areas had specific policies formulated as general guidelines on how these components should be managed. However, these policies were not comprehensive and in many cases, what was commonly practiced covered a much wider scope than the policies themselves. In yet other cases what was practiced was contrary to policy guidelines. Thus, the obtaining gaps between policies and practices meant that policy implementation could not be done effectively under the prevailing circumstances. Not surprisingly, policy implementations within the two hospitals were done in an ad hoc and uncoordinated manner. The main challenges faced in the management of cash included frequent cash deficits that led to liquidity problems and the requirement for hospitals to remit surpluses to treasury. Other challenges included theft and misappropriation of funds by wayward employees. In the management of debtors, major challenges included high poverty levels among hospital clients, government policies that forced the hospitals to waive significant amounts of debts, hospital debts being secured on weak collaterals and poor record keeping. In the management of creditors, the main challenges faced included tedious procurement processes, insufficient cash to pay suppliers and poor keeping of records. Finally, challenges faced in the management of inventory included lack of appropriate storage

space, losses through theft or deterioration and inadequate medical supplies given the high demand levels.

5.2 Conclusions

Evidently the management of working capital in any organization is not an easy task. When this feat is in respect of public hospitals such as KNH and MTRH, the prospects become increasingly insurmountable. Government and hospital policies often impact negatively on the hospitals' revenue base particularly considering the extent of poverty levels amongst communities served by these institutions. It is also evident that the two institutions, though having financial regulation policies to guide financial management practices, these policies are often too general and superficial. In other words, they do not set comprehensive benchmarks or minimum requirements that cover all areas of working capital management. This has made the implementation of these policies to be done in an ad hoc and uncoordinated manner. Numerous other challenges facing the management of working capital have been identified in the two institutions. These have adversely affected operational efficiency and thereby created liquidity problems. Addressing these challenges can improve the efficiency of working capital management and in consequence, improve the operating cash flows of these institutions.

5.3 Recommendations

In order to ensure reasonable and prudent total hospital working capital levels, managers should be made aware of the costs of capital so that they do not treat working capital resources as free. The cost of capital is the opportunity cost of not investing the resources locked in as working capital in other areas of the economy. On the other hand, too little investment in working capital will mean that the hospitals suffer liquidity problems and the resultant adverse effects on operations. The way to go around these challenges is to provide managers with an incentive to invest in the most efficient mix of working capital, a mix that would be considered optimal. This optimal level would mean that there is neither too much nor too little investment in working capital.

Having comprehensive working capital management policies in place is needed in order to ensure that these hospitals adhere to optimal working capital levels. This means for instance, having standards and procedures for the management of cash, receivables, payables and inventories that cover all possible areas. These standards and procedures should form part of policy guidelines for the management of working capital, which policies should then be implemented aggressively with a view to improving management efficiency.

In the management of cash resources, there is a need for change in government policy to allow these hospitals to retain their year end surpluses instead of remitting them to the treasury. This change would entail amendments to the relevant government financial management regulations covering hospital management services. Hospitals should also consider diversifying their income sources to include international lending organizations and private capital markets given the ever increasing competition for funds that are mainly received from the treasury as annual grants. Once received, cash from whatever source should be well managed and secured. In particular, cost sharing revenues collected daily should be keenly watched and daily cash reconciliations done. Strict rules to prevent any type of misappropriation at all levels should be in place.

These hospitals should also monitor their operating results and revenue and expenditure trends, in real terms and relative to demand. This process would be made possible by the two hospitals adopting a common core suite of financial sustainability indicators which relate to revenue and expenditure items. The benefits of this sort of benchmarking will accumulate over time with greater refinement of data and use by the sector in the proceeding periods. Just as well, these hospitals should ensure that proper cash flow planning is done using budgets. Over time, however, total revenues from all sources must equal or exceed total expenditures, or the hospitals will not be able to sustain their operations.

In the management of receivables, all hospital debts must be aggressively pursued. Fully fledged credit control sections should be in place to make follow ups on overdue accounts and to monitor payment histories of the current ones. They should work closely with the legal department so that as a final measure when all efforts through demand notices and personal visits aimed at recovering debts fail, legal steps can be instituted. Contrary to the current practice in the two institutions where the finance departments play only a minimal role in credit appraisal of current and potential clients, the finance managers of these hospitals should bear ultimate responsibility for these processes since traditionally this is their role. Monitoring of debt portfolios should be continuous and regular reports including ageing analysis submitted to management for reviews. Securities provided for credit should be valuable enough to secure the outstanding amounts and be legally executable in case of ultimate default by the respective debtors. In all cases, proper records should be maintained and all such documents that relate to accounts receivable be kept very secure as they represent assets of the hospitals.

For the non-performing debts, two receivables financing approaches offer an initial cash flow boost and a predictable source of continual cash flows. These are factoring and asset-backed securitization. In a typical receivables factoring program, a healthcare organization receives advance funding from its receivables and reduces collection and follow-up efforts required of their staff. What would happen is that the hospitals would sell their receivables at a discount for instance of between 5% and 10% of face value. They would also pay a factoring fee of, say up to 20% of sold receivables.

In typical asset-backed securitizations, proceeds generated from sales of commercial papers could be used to purchase receivables from the hospitals. Accounts receivable eligible for sale would be advance-funded at levels between 80 and 90%, with the unfunded portions remaining as assets of the hospitals. Ordinarily the hospitals would be responsible for collection and follow-up activities. The hospitals' finance managers would maintain cash collections for purposes of retiring the commercial paper notes and paying accruing administrative costs. Hospitals interested in receivables financing would

have to review each option's structure and benefits to assess among other things, advance funding provided, costs and eligibility requirements.

In the management of payables, what is most important is maintaining good relations with suppliers so as to ensure continuous supply of essential goods and services as well as obtaining discounts where provided. This can be accomplished through streamlining payments to suppliers and establishing effective management reporting systems as ways of improving efficiency. Such reporting systems would aid in decisions to ensure that there is an orderly system for paying different suppliers using widely accepted criteria such as number of days outstanding. This is even more important considering that often there are never enough funds at any one time to pay all suppliers due to liquidity problems faced by these institutions. One important measure that can be introduced is to lock in suppliers through long term contracts that smooth supplies even in times when the hospitals may not be having adequate funds to pay for supplies or when demand is relatively high. Such contracts would also check price volatility which can introduce uncertainties that can further complicate cash flow forecasting and planning.

In the management of inventory, the main concerns were lack of storage space and sometimes inadequate supplies of essential supplies. These are seemingly contradictory positions, implying that the hospitals are probably stocking huge volumes of slow moving drugs and medical supplies whereas they still face shortages of the critical requirements. Thus, apart from creating more space that is suitable for storage of these supplies, there is a need for stock management approach that is demand sensitive. Sometimes poor planning decisions by management result in huge purchases of slow moving items simply because they are being offered by the suppliers at heavily discounted prices. At other times donations and government supplies through KEMSA end up occupying every available space at these hospitals. All this is usually done at the expense of those other supplies that are more urgently and regularly required.

These hospitals therefore need to have more efficient inventory management systems that make use of recommended models. One such system is the Just-In-Time (JIT) system that would ensure only those supplies that are required are delivered and at the time of need. Use of inventory scheduling models such as the Wilson Economic Order Quantity (EOQ) would also come in handy. These improvements would minimize losses as well as storage, stock holding and ordering costs. The automated management information systems currently in use should be fully integrated with procurement, stores, accounts and the various user departments so as to streamline all operations in real time.

5.4 Limitations

There were numerous setbacks encountered in the course of carrying out this research and only the most significant ones are mentioned here. One major limitation was the nature of the institutions under review. Given the clinical nature of these hospitals, crucial information was not easily forthcoming. Respondents often cited the confidentiality requirements regarding any information that touched on patients. Normally there are vetting committees (Research and Ethics Committees at both KNH and MTRH) that vet all research proposals based on these institutions especially if clinical data would be used. These vetting processes normally take time and in some cases research proposals may not be approved. Again, being government institutions, the Official Secrets Act was often referred to as a reason for not divulging information to 'outsiders'. Many of the respondents were a bit skeptical and to some degree, suspicious of the possible use of information obtained from them.

In some instances, respondents failed to answer certain questions or where they did, not much thought was put into it since they may have considered the interview process as of no use to them hence the need to rush through and get over with it. Other respondents were busy most of the times and meetings had to be re-scheduled over and over again.

Another limitation encountered in this research was inadequate time to cover all the research requirements adequately. This is particularly due to the difficulty in accessing

the respondents for the interviews. However, it was still possible under the foregoing circumstances to obtain all necessary information to successfully carry out this exercise.

5.5 Suggestions for further research

This research evaluated short term liquidity management policies and practices affecting the two national referral hospitals in Kenya. The aim of doing this was to be able to identify key challenges so as to recommend ways of mitigating them and thereby improving management efficiency. There are government decentralization efforts that will in future focus more funding and other efforts on provincial, district and sub-district level health institutions. Given this future development, there is scope for a similar study aimed at studying working capital management in these institutions and the possible impact of these decentralization efforts.

Another area that could be studied is long term solvency and sustainability prospects for these hospitals. In view of the ever declining funding from government and other sources, these hospitals need to survey other options for long term financing so that their capital expenditure programs aimed at infrastructural development and capacity enhancement are not affected negatively. For these hospitals to be sustainable in the long term, they need to increase their physical and technical capacities so as to accommodate increasing demand for health care services and to keep up with increasing competition in the health sector.

REFERENCES

Benbasat, I., Goldstein, D. K. and Mead, M. (1987) *The Case Research Strategy in Studies of Information Systems,* MIS Quarterly (11:3), pp 369-386

Bhattacharya, H. (2001) *Working Capital Management: Strategies and Techniques,* Prentice Hall, New Delhi.

Collins, D., Njeru, G. and Meme, J. (1996) *Hospital Autonomy in Kenya: The Experience of Kenyatta National Hospital*, Kenya Health Financing Project, Nairobi.

Cooper, R. D., and Schindler, S. P. (2003). *Business Research Methods,* New York: Mc Graw- Hill Irwin.

Denscombe, Martyn (1999) *The Good Research Guide for Small Scale Research Projects,* Open University Press, London.

Deloof, M. (2003) *Does Working Capital Management affect Profitability of Belgian Firms?* Journal of Business Finance and Accounting Vol. 30 No. 3 and 4 pp. 573-587.

Deloof, M. and Jegers, M. (1996) *Trade Credit, Product Quality and Intra Group Trade: Some European evidence,* Journal of Financial Management, Vol. 25 No. 3, pp 33-44.

Eljelly, A. (2004) *Liquidity - Profitability tradeoff: An Empirical Investigation in an Emerging Market,* International Journal of Commerce and Management, Vol. 14 No. 2 pp. 48-61.

Gathumbi, S. N. (1997) *Application of Inventory Models in Drug Inventory Management: The Case of the Nairobi City Council Health Services,* Unpublished MBA Thesis, University of Nairobi.

Gitman, L.J. (1994) Principles *of Managerial Finance,* 7th ed. Harper Collins, USA.

Hayden, E. (2005) *Non-Profit Hospitals face Structural as well as Financial Challenges: Lessons from Massachusetts,* Working Paper 1003, Financial Services Forum, College of Management-University of Massachusetts, Boston, USA

Holdt, K. and Murphy, M. (2005) *An Investigation into the Management of Public Hospitals in South Africa: Stressed Institutions, Disempowered Management,* Department of Public Service and Administration, National Labour and Economic Development Institute, South Africa

Hutjes, S. and Van Buuren, J.A. (1992) *De Grevalsstudie. Strategie van Kwalitatief Onderzoek [The Case Study: Study of Qualitative Research]* Boom / Open Universiteit, Meppel, The Netherlands

Jarvis, R., Kitching, J., Curran, J. and Lightfoot, G. (1996) *The Financial Management of Small Firms: An Alternative Perspective,* ACCA Research Report No. 49.

Kariuki, J. T. (1993) *Drug Inventory Management: A Case Study of University of Nairobi Health Services,* Unpublished MBA Thesis, University of Nairobi.

Kirigia, J. M.; Emrouznejad, A. and Sambo, L.G. (2002) *Measurement of Technical Efficiency of Public Hospitals in Kenya: Using Data Envelopment Analysis,* Journal of Medical Systems 2002, 26(1): 39-45.

Kirigia, J. M.; Lambo, E. and Sambo, L. G. (2000) *Are Public Hospitals in Kwazulu-Natal Province of South Africa Technically Efficient?* African Journal of Health Sciences 2000, 7(3–4): 25-32.

Korir, J. (2003) *Safety Nets in Kenya's Public Health Sector: More Insights into Waivers and Exemptions,* Discussion Paper No. 039/03, Institute of Policy Analysis and Research, Nairobi

Lammers, W. J. and Badia, P. (2004) 1st ed *Fundamentals of Behiavioral Research,* Wadsworth Publishing, USA

Langabeer, J. R. (2008) *Health Care Operations Management: A Quantitative Approach to Business and Logistics,* Jones and Bartlett Publishers, Massachusetts, USA

Long, M. S., Malitz, L. B. and Ravid, S. A. (1993) *Trade Credit, Quality Guarantees and Product Marketability,* Financial Management, pp. 117-127.

Masiye, F.; Ndulo, M.; Roos, P. and Odegaard, K. (2002) *A Comparative Analysis of Hospitals in Zambia: A Pilot Study on Efficiency Measurement and Monitoring*, in: Zambia's Health Reforms Selected Papers 1995–2000, Volume 7. Edited by: Seshamani, V.; Mwikisa, C. N. and Odegaard, K. L., Sweden: pp 95-107.

Ministry of Health (2004) *Health Management Information Systems (HMIS),* Nairobi, Kenya.

Ministry of Health (2005) *Kenya National Health Accounts 2001/02,* Nairobi, Kenya

Ministry of Health (1994) *Kenya's Health Policy Framework*, November, 1994, Nairobi, Kenya.

Ministry of Health (2006) *The Health Sector MTEF (Medium Term Expenditure Framework) 2006/07-2008/09,* Sector Working Group Report, Nairobi.

Ministry of Health (2005) *National Health Sector Strategic Plan (NHSSP II) 2005 – 2010,* Nairobi, Kenya.

Moi Teaching and Referral Hospital (2005) *Strategic Plan July, 2005 – June, 2010,* Eldoret, Kenya.

Mogere, N. (2003) *A Survey of Working Capital Management Policies among Public Companies in Kenya,* Unpublished MBA Thesis, University of Nairobi.

Moyer, R. C. et al (1984) *Contemporary Financial Management, West Publishing Company,* pp. 562.

Mugenda, O. M. and Mugenda, A. G. (1999) *Research Methods: Qualitative and Quantitative Approaches,* ACT Press, Nairobi

Musokwa, P. A. N. (1981) *Financial Management in Parastatals: The case of Tanazania Electric Supply Company Limited (TANESCO),* Unpublished MBA Thesis, University of Nairobi

Newbrander, W. (1993) *Hospital Autonomy: Financing Issues for Hospitals in Pakistan: HFS Technical Trip Report to Boston, Ma,* Management Sciences for Health for the Health Financing and Sustainability Project

Ngaba, D. K. (1990) *Working Capital Management Practices in Kenyan Secondary Schools: The Case of Kikuyu Division, Kiambu District,* Unpublished MBA Thesis, University of Nairobi.

Ngigi, A. and Macharia, D. (2006) *Kenya Health Sector Policy Overview Paper,* Energy for Water-Health-Education, IT Power East Africa, Nairobi

Nowicki, M. (2007) The *Financial Management of Hospitals and Healthcare Organizations*, Health Administration Press, USA

Owino, W. and Korir, J. (1997) *Public Health Sector Efficiency Levels: Estimation and Policy Implications,* Discussion Paper No. 007/97, Institute of policy Analysis and Research, Nairobi

Owino, W., Korir, J., Ocholla, P. and Oloo, K. (2000) *De-centralization and Health Systems Development: The Question of Planning, Budgeting and Financial Structures,* Discussion Paper No. 025/2000, Institute of Policy Analysis and Research, Nairobi

Owino, W., Odundo, P. and Oketch, T. (2001) *Governance of the District Health Systems: A Focus on the Health Management Boards and Human Resource Development Issues,* Discussion Paper No. 027/2001, Institute of Policy Analysis and Research, Nairobi

Owino, W. and Were, M. (1999) *Enhancing Access to Health Care Among Vulnerable Groups: The Questions of Waivers and Exemptions,* Discussion Paper No. 14/99, The Institute of Policy Analysis and Research, Nairobi

Pandey, I. M. (1999) *Financial Management,* 8th ed. Vikas Publishing House, PVT Limited, New Delhi, India.

Ross, S. A., Jaffe, J. F. and Westerfield, R. W. (1990) *Corporate Finance,* Irwin, USA.

Rule, S., *A Harlem Hospital Survives its Crisis,* The New York Times, 21 November 1982, New York – USA

Scott, G. (2008) *Investigation into the Governance and Management of Kingston General Hospital,* Ministry of Health and Long-Term Care, Canada

Stover, C. C. (1991) *Developing the Management-Ownership Matrix: Trip report to Manila, Philippines,* Management Sciences for Health for the Health Financing and Sustainability Project.

The Standard, 5 August, 2009 *"KNH Loses Shs. 300m Annually"*, Article by Elizabeth Mwai and Naseemah Mohamed, pp. 8

Van Horne, J. C. and Wachowicz, J. M. (2000) *Fundamentals of Financial Management,* 11th edition, Prentice Hall Inc., New Jersey, USA.

Zelman, W. N., McCue, M. J., Millikan, A. R. and Glick, N. D. (2003) *Financial Management of Health Care Organizations: An Introduction to Fundamental Tools, Concepts and Applications,* Blackwell Publishing Ltd, Massachusetts, USA.

Zere, E. A.; Addison, T. and McIntyre, D. (2000) *Hospital Efficiency in Sub-Saharan Africa: Evidence from South Africa,* South African Journal of Economics, 69(2): 336-358.

Internet Sources

Alvarez and Marsal (2008) Hospital Insolvency; The Looming Crisis:

Glenngard, A.H. and Maina, T.M. (2005) *Reversing the Trend of Weak Policy Implementation in the Kenyan Health Sector? – A Study of Budget Allocation and Spending of Health Resources versus Priorities,* article published online in: Health Research Policy and Systems, 2007, PubMed

Osei, D.; Selassi d'Almeida, S.; George, M. O.; Kirigia, J.M.; Mensah, A. O. and Kainyu, L. H. (2005) *Technical Efficiency of Public District Hospitals and Health Centres in Ghana: A pilot Study,* article published online in: Biomed Central Ltd

APPENDICES

Appendix I: Introduction letter

October, 2009

Dear Sir / Madam,

I am pursuing a Master of Business Administration (MBA) degree program at the School of Business, University of Nairobi. My area of specialization is Finance. As a partial fulfillment of the requirements for an award of the degree, I am currently conducting an academic study on the working capital management practices in Kenyan referral hospitals.

Your institution is one of those selected for this study and I am therefore humbly requesting your valuable time in completing the attached questionnaire. The information you provide in this study will be treated with utmost confidentiality and will not be used for any other purpose apart from the intended academic use, nor any reference whatsoever will be made to you as the respondent, neither in any presentation nor report arising there from.

Any additional information by way of suggestions or comments, which you may deem necessary to make my research findings more conclusive, relevant and reflective of the study area will be highly appreciated. A copy of the research report will be availed to the respondents upon request.

Thank you.

Yours sincerely,

T. K. Bett

Appendix II: Interview schedule

Questionnaire No: ☐

Section A

1. Name of Department / Section

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2. Please indicate the service that your department provides

   .....

   .....

3. Please indicate your job position in the department

   .....

Section B (General)

1. Working capital components in the hospital include cash holdings in form of petty cash and bank accounts, institutional and individual debtors, creditors for medical supplies and inventories of drugs and other medical supplies.

   a.) In your opinion, which of these components do you consider of the most concern to management?

   .....

   b.) Please give your reasons.....

   .....

   .....

2. Efficient working capital management entails the maintenance of an optimum balance of each component of working capital. Where would you rate the efficiency of working capital management in the hospital? (Please tick in the appropriate box)

Poor	Average	Good	Very Good
[ ]	[ ]	[ ]	[ ]

3. In your opinion, how can the efficiency of working capital management in the hospital be improved further? (Explain briefly)

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4. a.) Does the hospital face any major challenge(s) of policy formulation and implementation in the management of working capital at the ministry or management level?

Yes [ ] No [ ]

b.) Please explain.....

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Section C (Cash and short term investments)

1. Does the hospital have any written statement stipulating the amount of cash to hold (both petty cash and cash at bank which can be withdrawn whenever needed) at any particular time?

Yes [ ] (go to question 2) No [ ] (go to question 3)

2. Please briefly explain the salient features of the written statement you have indicated in (1) above e.g. we must hold shs. X cash deposits at all times and petty cash must not exceed shs. Y, etc

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3. Please give possible reasons as to why the hospital does not have a written statement stipulating the amount of cash to be held as cash in hand and at bank at any one particular time

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4. In your view what is the possible effect of efficient management of working capital on the levels of cash surpluses in the hospital? (Indicate your choice by ticking in the boxes below)

a.) Working capital management has no effect on the level of cash surpluses [ ]

b.) Working capital management can lead to cash deficits [ ]

c.) Working capital management can lead to cash surpluses [ ]

5. Please indicate below at least one way in which you have been involved in the management of the cash component of working capital in the hospital.

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.....

6. Who is responsible for deciding on the cash amount to hold at a particular time in your institution? (Indicate your choice by ticking in the boxes below).

a.) The board [ ]
b.) The hospital director [ ]
c.) The finance manager [ ]
d.) Other (please specify) [ ]

.....

7. Do you ever face a situation where the hospital has idle funds i.e. funds for which no immediate use can be identified? (Indicate your choice by ticking in the boxes below).

Yes [ ] No [ ] (go to question 9)

8. How does the hospital normally invest these idle funds if at all (not necessarily at the end of the reporting year)?

a.) Place the funds in a savings account [ ]
b.) Place the funds in a fixed deposit account [ ]
c.) Other (please specify below) [ ]

.....

9. Does the hospital management ordinarily prepare cash budgets i.e. a plan of cash inflows (mainly cost sharing revenues and government grants) and outflows (expenditures)?

Yes [ ] No [ ] (go to question 12)

10. Who normally is responsible for preparing the cash budget?

a.) The board [ ]
b.) The hospital director [ ]
c.) The finance manager [ ]
d.) Other (please specify) [ ]

11. What is the normal time frame (period) for preparing the cash budgets?

a.) Less than a month [ ]
b.) Monthly [ ]
c.) After every three months [ ]
d.) After every six months [ ]
e.) Annually [ ]
f.) Other (please specify below) [ ]

12. Please rank here the main sources of cash (cash inflows) to the hospital indicating in the boxes below starting with the highest to the lowest using numbers from 1 to 4.

a.) Cost sharing fees [ ]
b.) Funds from donors [ ]
c.) Government grants [ ]
d.) Other revenues (please specify below) [ ]

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13. Please rank here the main uses of cash (cash outflows) from the hospital indicating in the boxes below starting with the highest to the lowest using numbers from 1 to 4.

a.) Payment of salaries, wages and allowances [ ]
b.) Purchase of drugs and supplies [ ]

c.) Payment for utilities (electricity, water, etc) [ ]

d.) Other expenditures (please specify below) [ ]

.....

14. How frequently does your institution bank cash collections?

a.) Daily [ ]

b.) Weekly [ ]

c.) Other (please specify below) [ ]

.....

15. Are you aware of any policies regarding the management of cash?

a.) Please indicate your response by ticking in the appropriate box below.

Yes [ ] No [ ]

b.) If your response in 15 (a) above is **yes**, please give details.

.....

.....

c.) If your response in 15 (a) above is **no**, please suggest what you would consider to be effective policy propositions

.....

.....

16. a.) Indicate by ticking in the boxes below whether or not you would consider management of the cash component of working capital the most important factor in efficiently managing working capital in the hospital.

Yes I would [ ] No I would not [ ]

b.) Briefly state your reason(s).....

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17. Please indicate the problems (if any) you normally encounter in the management or administration of cash in your institution.

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.....

Section C (Accounts receivables)

1. Please rank the following major classes of accounts receivables according to which comprise the largest volume to the smallest volume in the hospital's debt portfolio using numbers from 1 to 11.

Salary advances	[ ]
Staff petty cash/imprests	[ ]
Client debts secured by national identity card	[ ]
Client debts secured by motor vehicle logbooks	[ ]
Client debts secured by commitment letters	[ ]
Client debts secured by land title deeds	[ ]
Client debts secured by electronic/other goods	[ ]
Waivers/exemptions	[ ]
Rental of hospital premises	[ ]
NHIF rebates	[ ]

Student fees [ ]

2. Does the hospital have any written statement stipulating credit terms to clients and staff?

Yes [ ] (go to question 3) No [ ] (go to question 4)

3. Please briefly explain the key features of the written statement you have indicated in (2) above e.g. who would normally qualify for credit, length of credit, level of credit given, follow up measures, etc

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4. a.) Please give possible reasons as to why the hospital does not have a written credit policy statement to guide the giving of credit to clients and staff.

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b.) Suggest what in your opinion would be a suitable credit policy e.g. regarding who would normally qualify for credit, length of credit, level of credit given, follow up measures, etc

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5. In your view what percentage of hospital revenues from clients are not received when due? (Indicate your choice by ticking in the boxes below).

a.) 0 – 10% [ ]

b.) 11 – 20% [ ]

c.) 21 – 30% [ ]

d.) 31 – 40% [ ]

e.) Other (specify below) [ ]

.....

6. Are any attempts usually made to evaluate the creditworthiness of would be clients before health care services are provided to them?

Yes [ ] No [ ]

Please explain.....

.....

.....

7. Who is responsible for deciding on which clients get credit and the terms involved at a particular time in your institution? (Indicate your choice by ticking in the boxes below).

a.) The board [ ]

b.) The hospital director [ ]

c.) The finance manager [ ]

d.) Other (please specify) [ ]

.....

8. Please indicate below at least one way in which you have been involved in the management of the accounts receivables component of working capital in the hospital.

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.....

9. a.) Do you consider the collateral normally provided by clients seeking credit sufficient to ensure collectability of hospital debts? (Indicate your choice by ticking in the boxes below).

Yes [ ] (go to question 10) No [ ]

b.) Suggest below how this can be improved.

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.....

10. Please rank the following collaterals provided by hospital clients in order starting with what you would consider strongest to what you would consider weakest using numbers from 1 to 7

National identity cards	[ ]
Motor vehicle logbooks	[ ]
Land title deeds	[ ]
Commitment letters	[ ]
Mobile phones/other electronic goods	[ ]
NHIF rebates	[ ]

Other (please specify below) [ ]

.....

11. At what point does the hospital expect payment for services to be made?

a. On registration/admission before treatment starts [ ]
b. During the process of treatment/admission [ ]
c. After treatment services have been rendered or the client discharged [ ]
d. Other (please specify)

.....

12. Is ageing analysis normally done at the hospital?

Yes [ ] No [ ] (go to question 15)

13. Who normally is responsible for preparing the ageing analysis?

a.) The board [ ]
b.) The hospital director [ ]
c.) The finance manager [ ]
d.) Other (please specify) [ ]

.....

14. How often is this ageing analysis done?

a.) Less than a month [ ]
b.) Monthly [ ]
c.) After every three months [ ]
d.) After every six months [ ]

e.) Annually [ ]

f.) Other (please specify below) [ ]

.....

15. Who is normally responsible for following up and collecting overdue debts (staff salary advances, imprests, client debts etc)?

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16. At what point in time after the debt is past due for payment will the staff/client be reminded to make good their obligations? (Indicate your choice by ticking in the boxes below).

a.) 0 – 30 days [ ]

b.) 31 – 60 days [ ]

c.) 61 – 90 days [ ]

d.) Other expenditures (please specify below) [ ]

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17. How is this reminder done?

a.) Letter to staff/client [ ]

b.) Personal communication/visit to staff/client [ ]

c.) Telephone communication to staff/client [ ]

c.) Other (please specify below) [ ]

.....

18. What actions does the hospital employ when the reminders to debtors are not heeded?

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19. a.) Are you aware of any policies regarding the management of debtors? (Please indicate your response by ticking in the appropriate box below).

Yes [ ] No [ ]

b.) If your response in 19 (a) above is **yes**, please give details.

.....

.....

c.) If your response in 19 (a) above is **no**, please suggest what you would consider to be effective policy propositions.

.....

.....

20. a.) Indicate by ticking in the boxes below whether or not you would consider management of the accounts receivable component of working capital the most important factor in efficiently managing working capital in the hospital.

Yes I would [ ] No I would not [ ]

b.) Briefly state your reason(s).....

.....

.....

21. Please indicate the problems (if any) you normally encounter in the collection of receivables in your institution and generally in the management of receivables.

.....

.....

Section D (Accounts payable)

1. Please rank the following major classes of accounts payable according to which comprise the largest volume to the smallest volume in the hospital's debt portfolio using numbers from 1 to 5

Trade accounts payable	[ ]
Short term loans/bank overdrafts	[ ]
Statutory deductions (e.g. KRA, NHIF, NSSF, SACCO'S)	[ ]
Prepaid fees	[ ]
Other (please specify below)	[ ]

.....

2. Does the hospital have any written statement stipulating credit purchase, statutory remittances and borrowing terms?

Yes [ ] (go to question 3) No [ ] (go to question 4)

3. Please briefly explain the key features of the written statement you have indicated in (2) above e.g. when credit suppliers should be paid and what criteria should be used in deciding which one is paid before the other, deadlines for remitting statutory deductions, etc

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4. a.) Please give possible reasons as to why the hospital does not have a written policy statement to guide credit purchases, statutory deductions and borrowings.

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b.) Suggest what in your opinion would be a suitable policy e.g. regarding who would be paid first, length of payables payment period, adherence to statutory requirements, etc

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5. In your view what percentage of hospital debts to creditors are not paid when due? (Indicate your choice by ticking in the boxes below).

a.) 0 – 10% [ ]

b.) 11 – 20% [ ]

c.) 21 – 30% [ ]

d.) 31 – 40% [ ]

e.) Other (specify below) [ ]

.....

6. Is the hospital normally subjected to credit appraisal by current and potential suppliers of credit?

Yes [ ] No [ ]

Please explain.....

.....

.....

7. Who is responsible for deciding on which creditors get paid and the terms involved at any particular time in your institution? (Indicate your choice by ticking in the boxes below)

a.) The board [ ]
b.) The hospital director [ ]
c.) The finance manager [ ]
d.) The supplies manager [ ]
d.) Other (please specify) [ ]

.....

8. Is the hospital normally required to provide collateral especially for material sums before credit facilities are received? (Indicate your choice by ticking in the boxes below).

Yes [ ] No [ ]

Please explain.....

.....

9. At what point does the hospital consider making payment for services or goods received?

a.) On receipt of goods/ services [ ]
b.) Within 0 – 30 days [ ]
c.) Within 31 – 60 days [ ]
d.) Within 61 – 90 days [ ]
e.) Within 91 – 120 days [ ]
f.) When funds become available [ ]
h.) Other (please specify) [ ]

.....

10. Is ageing analysis normally done at the hospital?

Yes [ ] No [ ] (go to question 13)

11. Who normally is responsible for preparing the ageing analysis?

a.) The board [ ]
b.) The hospital director [ ]
c.) The finance manager [ ]
d.) Other (please specify) [ ]

.....

12. How often is this ageing analysis done?

a.) Less than a month [ ]
b.) Monthly [ ]
c.) After every three months [ ]
d.) After every six months [ ]

e.) Annually [ ]

f.) Other (please specify below) [ ]

.....

13. Who is normally responsible for liaising with suppliers and other creditors?

a.) The department/section head [ ]

b.) The hospital director [ ]

c.) The finance manager [ ]

d.) The supplies manager [ ]

d.) Other (please specify) [ ]

.....

14. How is this liaison ordinarily done?

a.) Written communication to creditors [ ]

b.) Personal visits to creditors [ ]

c.) Telephone communication to creditors [ ]

c.) Other (please specify below) [ ]

.....

15. Does the hospital ordinarily obtain short term loans from banks? (Indicate your choice by ticking in the boxes below)

Yes [ ] No [ ] (go to question 19)

16. Please indicate by ticking in the appropriate box the type of short term loan normally obtained?

a.) Overdraft [ ]

b.) Short term loan up to a year [ ]

c.) Other (please specify) [ ]

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17. What would normally be the purpose for which these short term borrowings are intended?

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18. What would normally be the terms and conditions of these short term borrowings?

.....

.....

19. Please indicate below at least one way in which you have been involved in the management of the accounts payable component of working capital in the hospital.

.....

.....

20. a.) Indicate by ticking in the boxes below whether or not you would consider management of the accounts payable component of working capital the most important factor in efficiently managing working capital in the hospital

Yes I would [ ] No I would not [ ]

b.) Briefly state your reason(s).....

.....

.....

21. Please indicate the problems (if any) you normally encounter in the management of accounts payable in your institution.

.....

.....

Section E (Stocks)

1. Please rank the following major classes of stocks according to which comprise the largest volume to the smallest volume in the hospital's inventory using numbers from 1 to 5.

Drugs	[ ]
Dressings and sutures	[ ]
Medical equipment	[ ]
Foods and rations	[ ]
Others (please specify)	[ ]

.....

2. Does the hospital have any written statement stipulating stock holding terms?

Yes [ ] (go to question 3) No [ ] (go to question 4)

3. Please briefly explain the key features of the written statement you have indicated in question 2 above e.g. policy on minimum or maximum quantities of drugs to be held at any particular time, reorder levels, lead times, etc

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4. a.) Please give possible reasons as to why the hospital does not have a written stock holding policy statement to guide the management of inventories.

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b.) Suggest what in your opinion would be a suitable stock holding policy e.g. regarding allowable stock quantities, reorder levels, lead times, obsolescence, etc

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.....

.....

5. Who is ordinarily responsible for making decisions regarding the amount of inventory to be held at any particular time? (Indicate your choice by ticking in the table below).

	Finance Manager	Supplies Manager	Department/Section Head	Other (please specify)
Drugs				
Dressings and sutures				
Medical equipment				
Foods and rations				
Others(please specify)				

6. Please give some factors that may be taken into consideration in determining the levels of inventory to be held.

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.....

7. a.) Does the hospital use any of the inventory control models e.g. Economic Order Quantity (EOQ) Model, in decisions involving stocks? (Indicate your choice by ticking in the boxes below)

Yes [ ] No [ ]

b.) Please indicate model(s) and explain application.....

.....

8. Does the hospital have adequate plans to ensure that stocks are replenished within the shortest time possible to avoid stock-outs?

Yes [ ] No [ ]

Please explain.....

.....

9. Does the hospital ordinarily take advantage of discounts offered by suppliers? (Please indicate by ticking the appropriate box and explain what is normally considered).

a.) Cash discounts [ ] .....

b.) Bulk purchase discounts [ ] .....

c.) Trade discounts [ ] .....

d.) None of the above [ ] Why not? .....

10. Does the hospital ordinarily conduct regular stock taking? (Indicate your choice by ticking in the boxes below).

Yes [ ] No [ ] (go to question 12)

11. How often is this stock taking done?

a.) Less than a month [ ]
b.) Monthly [ ]
c.) After every three months [ ]
d.) After every six months [ ]
e.) Annually [ ]
f.) Other (please specify below) [ ]

.....

12. a.) Does the hospital regularly conduct surveys to identify obsolete stock?

Yes [ ] (go to part b) No [ ] (Please suggest below what you would consider a suitable measure).....

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b.) How regularly is this done?

i. Less than a month [ ]
ii. Monthly [ ]
iii. After every three months [ ]
iv. After every six months [ ]
v. Annually [ ]
vi. Other (please specify below) [ ]

13. What steps does the hospital normally take when obsolete or expired stock is identified?

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14. Please indicate below at least one way in which you have been involved in the management of stocks component of working capital in the hospital.

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15. a.) Does the hospital normally encounter problems of lack of storage for stock?

Yes [ ] (go to part b) No [ ] (go to question 16)

b.) How is this problem of lack of storage space normally dealt with?

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16. a.) Indicate by ticking in the boxes below whether or not you would consider management of the stocks component of working capital the most important factor in efficiently managing working capital in the hospital.

Yes I would [ ] No I would not [ ]

b.) Briefly state your reason(s).....

.....

17. Please indicate the problems (if any) you normally encounter in the management of stocks in your institution.

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Thank you for taking the time to fill out this questionnaire