Management of working capital in public health care

BY

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TO WHOM IT MAY CONCERN

RE: CONFIDENTIALITY

Due to the strategic importance of this research it would be appreciated if the contents remain confidential and not be circulated for the period of five (ten) years.

Sincerely

N.A.THULA

DECLARATION

This research has not been previously accepted for any degree and is not being currently submitted in candidature for any degree.

Signed.....

Date.....30/09/2003.....

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STATEMENT

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My sincere gratitude goes to my dear husband who has been very supportive throughout my studies and in helping with data collection for my study. I also thank my mother-in law, my supportive friends, mother, brothers and sisters and particularly my children who gave me a chance to be a student again. To the staffs from private and public health care I thank you very much for the information provided.

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ABSTRACT: Two cases from public health care levels were compared on practises used to manage working capital with two cases from the same levels of health care in private health sector. The objective was to establish whether the practises in public health sector comply with the efficient management of working capital principles and whether it was practically feasible to apply the methods in health care provision. Primary and secondary data was collected. Staffs at an operational and administrative level were interviewed at both the primary and the Secondary health care. It was found that principles of working capital practiced in private sector are mostly consistent with working capital theories and could actually be implemented effectively in public health sector without risking patient health. Inefficiencies were identified in the public sector at both an operational and administrative level especially at a secondary health care level. Finally the study makes recommendations on how to address such inefficiencies.

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CHAPTER ONE INTRODUCTION

1.1 Introduction.

Cost analysis is an important tool for the formulation of health sector policy. It is of particular importance in third world countries where health is competing with other developmental priorities for scarce resources. We are living in times of rapid changes. These rapid changes have put challenges on health funding at national level. These challenges include; demographic changes, patient empowerment, movement from acute disease to chronic disease, new pandemic e.g. HIV, technological changes, increasing complexity of health care, massive variations in the quality of health care delivery and outcomes and an ever increasing cost of health care provision. Spending on health care is skyrocketing making it the fastest growing sector of the global economy (business week August 26 2002). It has been estimated that by 2011 health care spending will amount to about 3 trillions of Dollars (Business week August 26,2002).

1.2. Background of the study

The high rate of HIV/AIDS cases is putting more strain on the already constrained health budget. Public health care financing is too heavily dependent on general taxation. This dependence makes funding the health sector vulnerable to macro-economic policy and international financial market volatility. South African macro-economic policy, its diverse economy and effective tax collection methods, has so far enabled it to survive the recession following September 11, 2000. However, South Africa is sitting on an AIDS time bomb, which is slowly eroding the economic benefits the country has. Not only does HIV/AIDS decrease the tax income for the government from the labor force, it increases government expenditure on health care and social development and welfare.

According to the case study conducted by the University of Natal's health economics and HIV/AIDS research division for a UNICEF global study, in

developing countries, 2.5% of the population was orphaned before the HIV/AIDS pandemic. In South Africa, this figure is expected to rise at almost 17% by 2010 (6 November 2002, Sunday Independent Newspaper). State resources to deal with this increasing number of orphans are already inadequate and would be stretched even further. Sources of public health sector funding come mainly from general taxation, then local authority revenue, households, provincial government-own revenue and donors. The major concern raised by national health account is that the general taxation as the major source of funding is not sustainable. The national health account had suggested that government find ways of boosting public health sector funding before it becomes constrained further to a point of being unable to provide the very basic patient needs. KZN receives a lion's share of the health budget, almost the same amount as Gauteng due to the inability to generate enough revenue to contribute to health expenditure and also due to the high incidence of HIV/AIDS infection. These are made worse by the unemployment rate and increased level of poverty compared to other provinces. Public health sector is already showing signs of operational difficulties due to shortage of stock. Some public hospitals are running huge deficits.

Local authorities, which are the second major contributors to revenues, are also not sustainable as they depend on rates, which are defaulted regularly, especially when the economic conditions are bad. There have been concerns by municipalities at the rate of defaults, which has resulted in the decision to take very drastic steps to recoup the money owned for rates (i.e. attaching property for rates owned). This causes more complications but is said to be the only solution available to municipalities to encourage rate payment in order to run its service.

The national health account has made recommendations that these sources be supplemented with more sustainable sources of revenue (see sources of public Health Sector Financing below

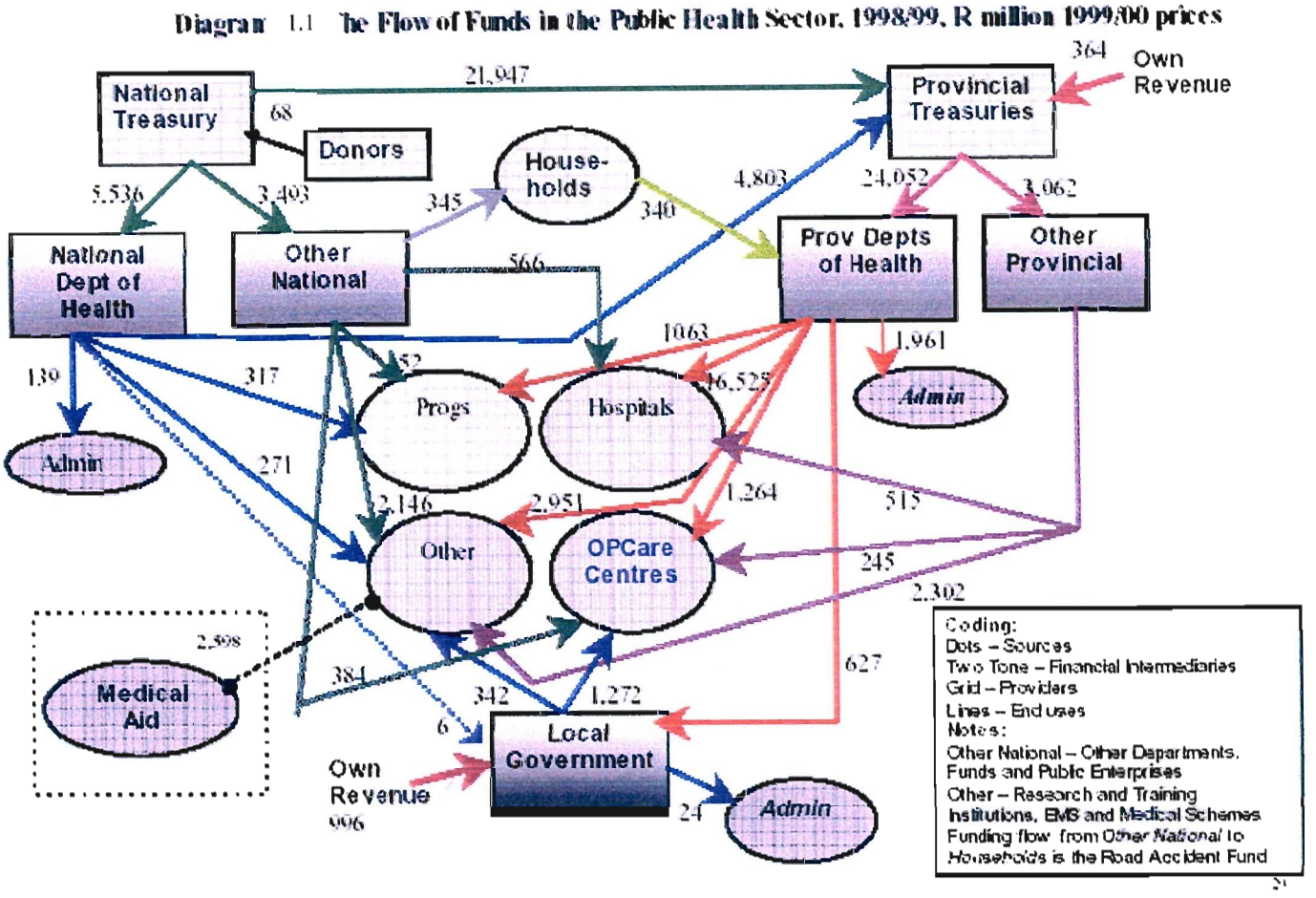


Figure 1.1 (adapted from NHA)

Health care expenditure accounted for a big proportion of national budget. The national health budget for 2002-2003 amounted to R7, 18 billion, and private and public health sector together spends R70 billion a year and this affects every South African. There were two areas of expansion in the expenditure, which are:

- Substantial increase in spending on HIV and AIDS programmes
- Grant of tertiary health care services o redistribution of funds from urban centers to rural provinces.

The National Health Accounts (NHA) project produced one of the first analysis of health care expenditure collected from primary data over a number of

consecutive years in South Africa (1996/1997 – 1998/1999). The data revealed two eras of public health sector financing

1. From 1992/3 to 1997/8 – this period was characterized by substantial growth in funding (both in real and per capita terms) reallocation of resources to primary health care and redistribution of health sector funds across provinces.
2. In contrast, the second era from 1997/8 onwards is characterized by falling per capita public health sector funding, a reversal of the redistribution across provinces and limited growth in public health sector expenditure (National Health Accounts for South Africa.1998/1999) see table 1.1 to1

Table1.1 Sources of Full Public Health Sector Financing, 1996/1997-1998/1999
(Million Real 1999/00 prices)

	1996/97	**1997/98**	**1998/99**
General Taxation	29,244	30,972	30,908
Local Authority Revenue	845	963	996
Households	499	418	340
Provincial (Government Own Revenue)	334	578	384
Donors	18	33	68
TOTAL	**30,940**	**32,964**	**32,696**

Figure 1.2 Sources of full Public health sector financing 1996/97-1998/99 (Million, Real 1999/00 prices)

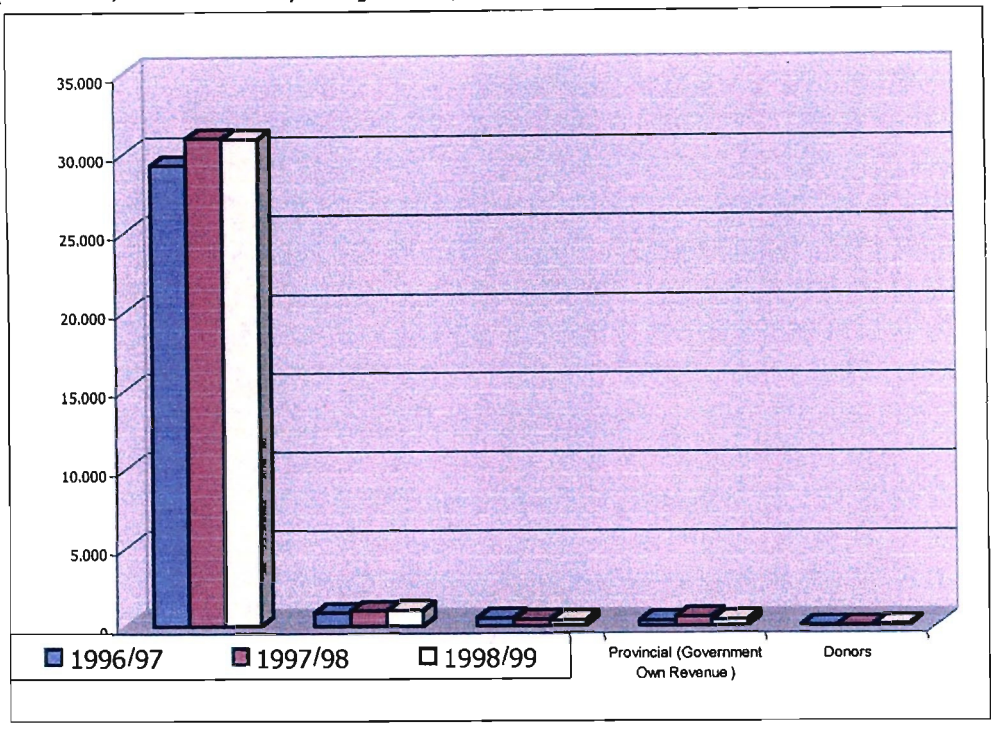


Table 1.2 Per Capita Full Public Health Sector Financing by Sources Including Medical Scheme Members, 1996/97-1998/99

	1996/97	1997/98	1998/99
General Taxation	717	743	725
Local Authority Revenue	21	23	23
Households	12	10	8
Provincial (Government Own Revenue)	8	14	9
Donors	0	1	2
TOTAL	**758**	**791**	**767**

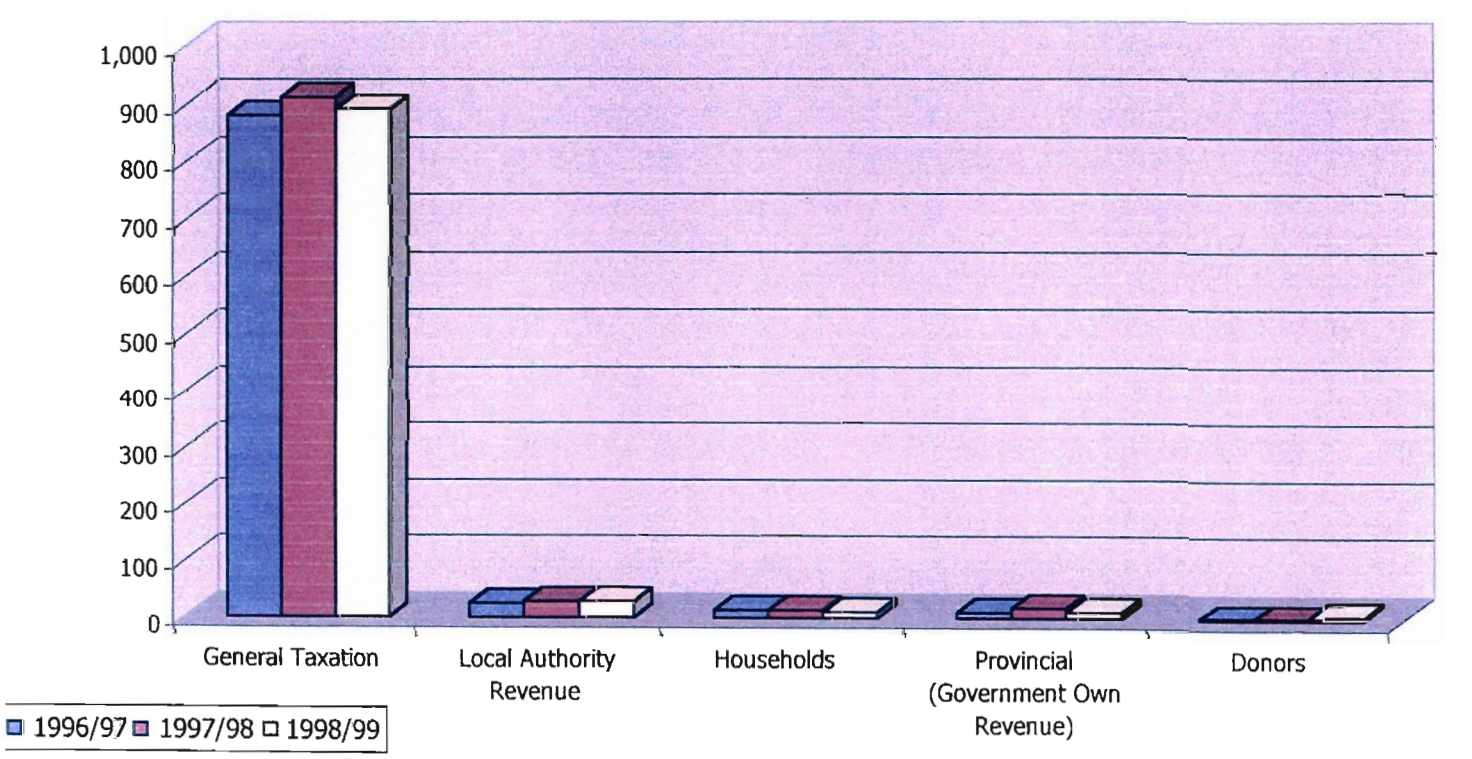
Adapted from NHA for South Africa 1998/99

Table 1.3 Per Capita Full Public Health Sector Financing by Sources Excluding Medical Scheme Members, 1996/97-1998/99

	1996/97	1997/98	1998/99
General Taxation	881	912	891
Local Authority Revenue	25	28	29
Households	15	12	10
Provincial (Government Own Revenue)	10	17	11
Donors	1	1	2
TOTAL	**932**	**970**	**943**

Adapted from NHA for South Africa 1998/99

Figure 1.3 Per capita Full public health sector financing by sources excluding medical scheme members, 1996/97-1998/1999(Rmillion, Real 1999/00 prices)



The transition between the two periods would appear to relate to the introduction of both GEAR and fiscal federalism, the current macro-economic environment translates into a highly constrained financing environment for health now and in the foreseeable future, the NHA observed. Further, the current resource allocation formula for provinces and subsequent provincial budget processes has done little to encourage redistribution to where funds are most needed (which was addressed in the 4 June 2002 health budget above). NHA recommended are based on the above findings and need attention by the government.

There have been frequent reports of stock theft and stock shortages from government financed health sector, long debtor days and obsolete stock, which suggest poor management of working capital. It is against this background that this study is pursued. If large volumes of stock become obsolete while there is large shrinkage and shortage at the same time, it suggests that stockholding, overstock of non-essential stock and corruption in ordering and receiving and dispensing departments are the major sources of problems. Investment in working capital is the lifeblood of the business where the daily action takes place. It appears that the public health care sector adopts a conservative approach in working capital policy where considerably more long-term capital is invested in current assets, thus offering its clients (patients) greater choice through having more inventory and more favorable credit terms, by allowing a longer settlement period. More cash is also kept on hand for daily operating disbursements. This policy has higher risks for obsolete stock, bad debts and incurring penalties from creditors who may be kept waiting beyond acceptable time for payments. The potential for higher benefits is therefore shaded by the higher risks (Flynn.D.1997). This policy will therefore require very efficient management of working capital.

To measure the efficient management of working capital, the following questions will be asked

- What forms of payment does health care provider accept (medical aid or cash)?
- What criteria are used for the free service and fee for service in government funded health care centers and institutions?
- How is stock ordered?
- When is it ordered?
- How soon is it delivered and is it checked to ensure that quantity received is equal to quantity ordered?
- How are debtor days in public hospitals, and what are methods used to chase overdue accounts (chasing debtors and whether debtors are checked for credit worthiness)?
- Stockholding – number of days in which stock take to move to the next stage (until it reaches end user or is used by the patient)?
- How long does it take to settle debt with creditors?
- Whether auditing is done and how often?

These aim at establishing whether the practices used for managing working capital are consistent with theories for efficient management of working capital.

One of the recommendations of the National Health Accounts of South Africa stated above is that government may need to review cost control in the public health sector. Its observation is that public health sector hospitals are demonstrating rapidly rising costs per patient day equivalent shown by both an increase in funding and a drop in the number of beds. Further salaries are absorbed in large and increasing proportion of expenditure in the public health sector. This may not be financially sustainable. While working capital as a variable cost has to vary with the levels of production in business (inpatient days or outpatient visits in public health sector or the number of patients seen), it does not seem to be the case in the public health care system. It has become a fixed cost. This together with many fixed costs such as salaries, admin costs, contracts, etc in public health sector makes it difficult to reach breakeven point.

It is against this backdrop that management of working capital has to be considered seriously in public health sector to avoid budget deficit and inefficient patient care, because it seems that working capital is eventually not utilized by the persons it is intended for. If managed well, working capital can become a substantial complementary source of funding to boost public health sector resources. In a transformation environment like health care, there should be a close relationship between the inputs to the transformation process (i.e. facilities and staff) and outputs from the process (i.e. efficient care/service). If these two don't match, then the cash flow is negative because the source has to be repeated at an extra cost. To succeed in this whole process, one needs stable and efficient human resources. This can be accomplished by having strategic business units, where each unit manages its budget and operates within agreed budget constraints. This will be discussed further in the recommendations.

1.3 Motivation for the project.

The increasing expenditure in health care especially in KZN and the decreasing standards in health care due to operational inefficiencies in some public health centers is the motivation behind the choice of the project. The above national health account report show that the second era of 1997/1998 was characterized by falling per capita public health sector funding while at the same time there was shortage of medical supplies, long debtor days, obsolete stock and stock shrinkage in public sector. This suggests inefficient management of working capital and motivated the choice of the project to identify problem areas.

Public sector does not have a positive return on capital like private sector because of differing financial objectives. The objective in non-profit organizations is to break-even, to achieve this it needs to implement policies which will ensure cost reduction. However more than private sector there is a greater need for public sector to reduce cost since it can not increase revenue by increasing user fees due to moral implications to the majority of the populations. The projected demand for public service due to changes in health care financing also and the

need to increase revenue to improve health care in general motivated the choice for the project. There is also a growing bargaining power by health employees for increase in salaries, which puts even more pressure on the government budget given the increasing number of competitors overseas who have exchange rate advantages. There is a greater need than ever before to balance cash outflows with inflows in government health services to make them sustainable .All the above factors motivated the choice of this project.

1.4 Value of the Research

The study will help with the formulation of policy from the corporate strategic level and implementation to lower levels. Through the implementation of cost control systems, will increase revenue through cost reduction and therefore increase financial resources to meet the public health financing needs. The improvement of facilities and resources will attract more revenue from private sector and relieve the department of the financial strain of increasing health expenditure. In summary, increasing efficiency will reduce inpatient days, reduce debtor days, increase cash inflow, reduce government credit, reduce health risks and hazards, ensure that financial resource are channeled where they are needed most and improve the overall national economy. Feedback systems will help identify cost drivers and variances and focus resources on such drivers.

1.5 Problem statement

1. What causes shortage of stock in government institutions?
2. To what extent are systems put in place effective in the management of debtors, cash and creditors in public sector?
3. Why is stock shrinkage a common occurrence in public health sector?
4. Why is debtor days longer than accepted in public sector? What causes bad debts?

CHAPTER TWO

WORKING CAPITAL THEORIES (principles of efficient management of working capital)

2.1 Introduction.

The efficient management of working capital is important from the point of view of both liquidity and profitability in business. Investment in current working capital is the lifeblood of the business where daily action takes place, (Flynn, 1997). Working capital can be used as a sustainable source of income in public health sector. Cost recovery and working capital cycle can be very useful in generating revenue for public sector. Although components of working capital differ in private sector compared to public sector, the final objective for both is revenue generation. There is limited literature in the management of working capital in public sector because the topic has received little attention before. In the last decade quality assurance studies (e.g. by JCIA) have been extended to services organizations but little attention have been given to quantitative factors as contributing to quality.

The most significant working capital items are

1. Inventory / stock (raw materials, work in progress, finished goods & consumable stores)
2. Accounts receivable (debtors)
3. Cash resources (bank balance, cash, petty cash on hand)

The CIMA official terminology defines working capital as the capital available for conducting day-to-day operations of an organization. In accounting terms, this is a static balance sheet concept referring to the excess – at a particular point in time – of permanent capital plus long-

term liabilities over the fixed assets of the business. As such, it depends on accounting rules, such as what is capital and what is revenue, what constitutes a retained profit, the cut-off between long-term (twelve months from balance sheet date for published accounts) and when revenue should be recognized (strategic financial management: stage 4, chapter 14). If working capital, thus defined, exceeds net current operating assets (stock plus debtors less creditors), the company has a cash surplus (usually represented by bank deposits and investments), and otherwise it has a deficit (usually represented by a bank loan and/or overdraft). On this basis therefore, the control of working capital can be subdivided into areas dealing with stock, debtors, creditors and cash.

Management of working capital involves both an investment and financing decision, which is influenced by the risk and return of that particular decision. Working capital can make a significant reliable source of funding if managed well. Working capital financing decisions involve the determination of the mix of long-term versus short-term debt. When the yield curve is upward sloping, short-term debt costs less then long-term debt. With an aggressive financing policy the firm finances part of its permanent asset base with short-term debt. This policy generally provides the highest expected return (because short-term debt costs are typically less than long-term debt costs) but it is very risky. Under a conservative financing policy the firm would have permanent financing (long-term debt plus equity) which exceeds its permanent base of assets. This is the least risky policy but also results in lowest expected returns.

The aggressive financing policy is commonly found in private health sector while the government prefers the conservative financing policy. The former policy requires that working capital be managed efficiently by way of a strict credit control policy, monitoring debtors, and holding minimal cash. This practice is not used in the public health sector. A conservative financing policy would be an ideal policy from national

level, as it ensures that financial resources are available whenever needed to meet patient's healthcare needs. However, at unit level, investing in consignment stock for emergency would be an ideal policy or rather a moderate policy that falls somewhere between the two extremes. The moderate policy matches the short-term financing to the fluctuating current assets and the long-term finance to the permanent part of the current assets plus the fixed assets (Parkinson, 1994).

In 1997, the American Defense Authorization Act required the DOD to conduct a comprehensive study of Defense Business Operations Funds (DBOF) and presented its findings and a proposed improvement plan to the congress for approval. DBOF combined the nine existing revolving individual funds into a single revolving fund. With the establishment of DBOF, all business activities under the fund were issued annual operating budgets with official management cost goals and capital budgeting limitations that had not previously been in all cases.

Azama (1997), discovered that where government business units are managed like commercial business, there were several improvements in business practices, cost visibility and breakeven. Working capital funds are defined as revolving funds that exist to finance the operations of government business units that are managed like commercial business units. The business units in a working capital fund sell goods or services to "customers" with the intention of recovering the total cost incurred in providing those goods and services. The business unit uses income from the sales to buy or replace inventory and otherwise finance the production of goods and services. A working capital fund business unit, unlike a commercial business is not profit-oriented and therefore only tries to breakeven on the sale of goods and services. The basic tenet of the revolving fund structure is to create a customer-provider relationship between the military operating units and support organizations. The relationship was designed to make managers of support organizations

funded through the revolving fund and decision-makers at al levels more concerned with costs of goods and services.

The working capital funds were created and designed to accomplish a number of goals and objectives. The goals included

- Providing a more effective means for controlling the costs of goods and services provided by working capital funds and a more effective and flexible means for financing and accounting for these costs.
- Providing managers of working capital funds the financial authority and flexibility required to procure and utilize manpower, materials and other resources effectively.
- Highlighting the cost consequences of various alternatives.

Specific objectives included

- Providing managers of working capital funds with modern management tools comparable to those used in similar commercial enterprises.
- Improving cost estimates and cost controls.
- Encouraging providers of goods and services to better manage labor, inventories, workload, budgeting and cost control.
- Placing customers in position to evaluate prices and the quality of goods and services.
- Establishing standard prices/rates to allow customers to plan and budget more confidently.

2.2 Working Capital

The need for good treasury management and working capital management has been with us ever since business began. They both focus on liquid resources (**cash flow**) this means the cash that flows into the business and out of the business. Both also take into account **risk.** As firms grow it usually becomes necessary to appoint specialist staff skilled in the treasury while maintaining a team dedicated to ensure the high quality of working capital decisions (Arnold, 1998).

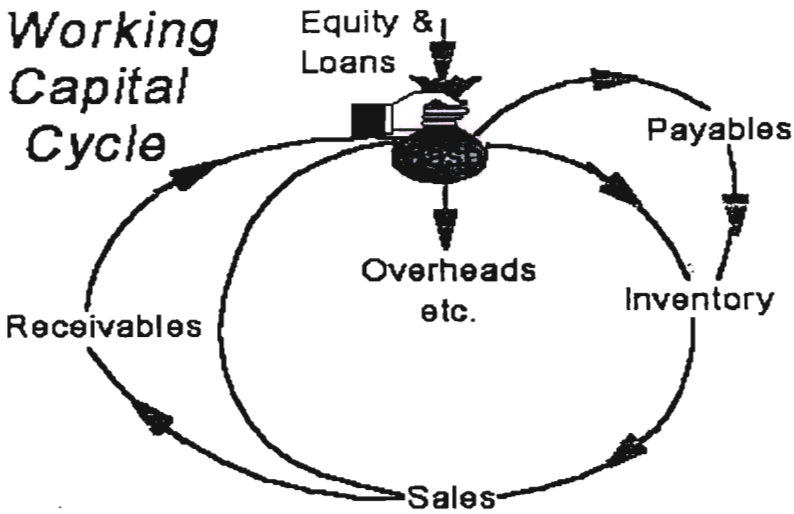
2.2.1 Cost recovery principle

Working capital funds were established to do a better job of identifying all costs associated with producing a specific output. It was recognized that the selling prices charged to customers by the revolving funds should include all the costs involved in providing those goods and services. By giving business unit managers the authority and flexibility to make trade-offs decisions, more can be done to control costs, promote efficiency and allow sound economic decisions.

2.2.2 Working Capital Cycle

Cash flows in a cycle, that is from the providers of funds to the to the business operations, thus adding value for the providers of those funds, that is going back with more value than it was when it left the hands of funders.

Figure 2.1



Adapted from http: www.planware.org/workcap.htm

The shorter the cycle the more value it creates for its funders. As the adage goes 'time is money'. Money that is tied up somewhere in the cycle for longer than required is an opportunity cost of earning interest form it or avoiding the cost of capital to top up the gap. Although it seems as if there is no cost of capital in public health care funding, the funds tied up somewhere in the cycle destroys value in that the money could be used to provide other supplies that could be very important in managing patient conditions. A slow cycle creates shortage of stock and deprives other patients the opportunity of having efficient health care. Speedy recovery saves the hospital cost on prolonged inpatient admissions.

Money tied up in any stage in the working capital chain is an opportunity cost. In addition, there are costs associated with storage and/or administration. The combined costs can be considerable and it is the art of good working capital management to so arrange the affairs of the business as to obtain a balance between costs and benefits through raising or lowering stock levels, cash, debtors and creditors to their optimum levels (Arnold, 1998).

The operating cycle is the length of time between the company's outlay on raw materials, wages, and other expenditures, and the inflows of cash

from the sale of goods and services. In a manufacturing environment, this is the average time that raw materials remain in stock, less the period of credit taken from suppliers plus the time taken to produce the goods plus the time the goods remain in finished inventory plus the time taken by customers to pay for the goods. This is an important concept for the management of working capital or cash because the longer the operating cycle, the more financial resources it needs. Management needs to watch that this cycle does not become too long (Parson, 1994). Working capital cycle is calculated as: -

Day inventory
\+ Debtor's collection period
\- Creditor settlement

The shorter the cycle the better (Flynn, 1997)

Days inventory = Inventory X 365/
Cost of sales.

Debtor's collection period = Debtors X 365/
Credit Sales

Credit Settlement period = Creditors X 365/
Credit Purchases

Each of the above working capital components require management and control in order to shorten the cash conversion cycle. This is as true in a manufacturing environment as it is in a service delivery business, however in government health care services where there are no debtors like primary health care the debtor component falls off.

2.2.3 Working capital ratios

Working capital ratios serve as the tool to measure the efficiency with which working capital has been utilized. The following ratios can therefore be used as a guide for action whenever there are problems with

working capital management or as standards of efficient management in institutions(see table below).

Table 2.1 Efficient management of working capital through ratios

Ratio	**Formulae**	**Result**	**Interpretation**
Stock Turnover (In days)	Average Stock * 365/Cost of goods Sold	= x days	On average, you turn over the value of your entire stock every x days. You may need to break this down into product groups for effective stock management. Obsolete stock, slow moving lines will extend overall stock turnover days. Faster production, fewer product lines, just in time ordering will reduce average days
Receivables Ratio (in days)	Debtors * 365/Sales	= x days	It takes you on average x days to collect monies due to you. If official credit terms are 45 days and it takes you 65 days... why? One or more large or slow debts can drag out the average days. Effective debtor management will minimize the days
Payables Ratio (in days)	Creditors * 365/Cost of Sales (or Purchases)	= x days	On average, you pay your suppliers every x days. If you negotiate better credit terms this will increase. If you pay earlier, say to get a discount this will decline. If you simply defer paying your suppliers (without agreement), this will also increase – but your reputation, the quality of service and any flexibility provided by your suppliers may suffer
Current Ratio	Total Current Assets / Total	= x times	Current assets are assets that you can readily turn into cash or will do so within 12 months in the course of

	Current Liabilities		business. Current Liabilities are amounts you are due to pay within the coming 12 months. For example, 1.5 times means that you should be able to lay your hands on $1.50 for every $1.00 you owe. Less than 1 times e.g. 0.75 means that you could have liquidity problems and be under pressure to generate sufficient cash to meet oncoming demands
Quick Ratio	(Total Current Assets – Inventory)/Total Current Liabilities	= x times	Similar to the Current Ratio but takes account of the fact that it may take time to convert inventory into cash.
Working Capital Ratio	(Inventory + Receivables – Payables)/Sales	As % Sales	A high percentage means working capital needs are high relative to your sales.

Adapted fromhttp:www.planware.org/workcap.htm

Other working capital measures include the following: -

- Bad debts expressed as a percentage of sales
- Cost of bank loans, lines of credit, invoice discounting, etc
- Debtor concentration – degree of dependency on a limited number of customers.

Once ratios have been established, it is important to track them over time and to compare over time and to compare them with ratios for the comparable business or industry sectors.

2.3 Management of Working Capital Components

Each working capital component requires management and control in order to remain within the constraints of the policy selected. Apart from the underlying principle that current assets should be kept as low as possible without dampening the expected return, and that creditors should be extended as long as possible without incurring financial penalties, there are a number of useful techniques for managing these components (Flynn, 1997).

2.3.1 Inventory

Managing inventory is a juggling act. Excessive stock can place a heavy burden on the cash resources of a business. Insufficient stock on the other hand can result in lost sales, delays for customers etc. The key is to know how quickly your overall stock is moving or, put another way, how long each item of stock sits on the shelves before being sold. Obviously average stock holding period will be influenced by the nature of business. The nature of consumption of the product or the service will determine the speed with which stock is turned over. In service health organization where there is high patient turnover stock is expected to move fast, however not every stock will move fast. The demand for some products just like in other types of business is seasonal. Inventory decisions should therefore take into account seasonality of certain conditions.

Nowadays, many large manufactures operate on a just-In-time (JIT) basis whereby all the components to be assembled on a particular day, arrive just in time i.e. arrive at the factory early that morning, no earlier no later. This helps to minimize cost as JIT stock takes up little space, minimizes stock holding and virtually minimizes the risk of obsolete and damaged stock. Because JIT manufactures hold stock for a short time, they are able to conserve substantial cash. The JIT principle can be practically feasible in public health sector. Concepts will only be changed

to suite the type of service and operations. The JIT principle could apply for both stock (drugs and medical supplies) and patient processing. Patients in public sector have to be admitted for days even for minor surgeries. To avoid inpatient days cost the patient could be on a waiting list and only be admitted on the morning of the operation for minor operations and be discharged after a few hours after the patient has stabilized. Admission should be reserved for those major cases, which need pre-operative care and stabilization before operation. Outpatient theatres should be equipped to handle the minor operations and relieve the central theatres of the load. This does not only save cost; it ensures that human resources are utilized efficiently. JIT is applicable not only to patients undergoing surgery but also to those who have to have procedures done. Discretion would of course have to be made for those patients who travel long distance to have services provided at public hospitals.

Inventory involves the commitment of a large amount of a company's resources. Its efficient management is of great concern to the financial manager. In a manufacturing business, stock/inventory includes raw materials brought in parts, finished goods awaiting sales and also in work in progress. Stock should never be viewed as an idle asset, rather as an essential part of a firm's investment and operation, and therefore its movement closely monitored.

No business likes to turn away a customer because it does not the product in stock. Not only does this mean that the profit margin on the item is lost, it also causes customer discontent and loss of market share (Flynn, 1997). The optimum holding of stocks will maximize the benefits les costs involved. Holding higher levels of finished goods stock will enable the company to be flexible in supplying customers, however, these benefits would have to be balanced against the storage costs incurred, the capital costs of financing the stock the cost of stock becoming obsolete. This is as important in profit making business as it is

in non-profit making public health sector. Another disadvantage of high levels of stock is that it becomes difficult to control, and stock shrinkage becomes a common problem. Just as in profit making organizations, efficient delivery of health care should however not be compromised by stock-outs. Optimum holding of stock will ensure customer satisfaction and retention in this highly competitive South African health sector and maximize benefits less costs incurred by the government.

Stock-outs of particular items have various causes. The item may be in an infrequent seller and very low stock are retained, there may have been an unusual sudden demand for that item, there may be a lag time from the time of order or it may simple be poor planning. In health public sector stock is divided into medical supplies and medicines and is the major source of expenditure (see table below).

Table 2.2: Provincial Expenditure on Capital, Medicine and Medical Supplies

	Capital Expenditure	& Change in Capital Exp[1].	Medicine & Medical Supplies	% Change in Medical Exp.	Overspending on Personnel
Eastern Cape	90,682	-38.4%	288,387	17.7%	6,97%
Free State	44,200	-55.1%	210,801	-36/4%	13.62%
Gauteng	471,277	6.7%	733,356	-2.9%	5.57%
Kwazulu-Natal	93,469	105.8%	558,330	-17.5%	0.90%
Mpumalanga	Na	Na	105,591	-46.0%	Na
Northern Cape	739	-43.9%	40,518	-12.4%	9.85%
Northern Province	208,288	-24.2%	209,867	-17.1%	22.79%
North West	115,520	5.0%	164,752	-24.7%	8.98%
Western Cape	11,588	-44.7%	371,435	-7.8%	1.86%
Total Average	1,035,764	5.8%	2,683,038	-12.8%	6.35%

[1] Adapted from Intergovernmental Fiscal Review (1999) http// www.idasa.org.za

Personnel for 1998/1999inR'000(1996Rands)[2]

[1] Percent change in Capital and Medical Expenditure is for between years 1996/97 to 1999/00.

There are a number of simple planning methods for inventory management, e.g., ABC method, the use of twin bins and the application of the economic order quantity approach (Flynn, 1997).

2.3.1.1 ABC Inventory management

This is probably the most unsophisticated approach to inventory management, but is a start. The inventory lines are graded on the basis of quantity of items kept in the inventory and the value invested in each stock item. Items graded A have a high inventory value, but not necessarily a high number of units kept on hand. Such items must be carefully monitored and tightly controlled. Re-orders are placed well within the lead-time to ensure that there is never a stock-out on such items. Items rated B, because they have lower unit values require less control and unit inventory numbers are always kept on hand. Items rated C are ordered only when requested from customers or service providers. This method is very rudimentary, but at least forces consideration of the relative importance of each line item (Flynn, 1997). The following steps are taken to grade the inventory lines: -

- Determine the average investment in each item
- For each item, its average investment is expressed as a percentage of the total inventory investment
- For each item, its average number of units is expressed as a percentage of the total number of units in the inventory
- Each item is then classified into groups indicating the need for tight control (A items), average control (B items), and loose control (C items), the most important criterion being relative size of investment in the inventory (Flynn, 1997).

The A items deserve tight control because they constitute a substantial percentage of the total inventory investment but a small percentage of

the total units, whereas the C items (loose control) relationship is just the opposite, and the B items (average control) fall in between.

2.3.1.2 Twin Bin inventory management

This method requires two storage areas for each item of stock. One is for the stock the other for stock necessary during the lead-time from order to delivery. The moment the bulk stock bin is empty; there is a card at the bottom of the tin, which is handed on to the order clerk to effect the re-order. The second bin then becomes the source of stock until the order is received at which time the safety stock bin is replenished and the bulk stock bin refilled (Flynn, 1997).

2.3.1.3 Economic Order Quantity

This formula is useful for establishing the optimal frequency and quantity, which should be ordered for each line item. The formula is derived from the idea that the more frequently orders are placed, the higher the annual cost of ordering will be. However, the less frequently orders are placed, the higher will be the quantity ordered and thus holding costs. The ideal balance between ordering and holding costs is derived from the Economic Order Quantity equation (Flynn, 1997). Usually the criteria used for inventory relates to past sales levels. In a rapidly expanding business, this could result in an unacceptable low inventory levels in relation to forecast sales. This is also relevant in non-profit making organizations where demand for stock can exceed supply like in public sector especially the referral hospitals. An epidemic, national disaster or accidents can cause the above situation. This calls for safety or consignment stock in contingency planning. Therefore more than one inventory method can be used at a given time. If the business is seasonal in purchases, production or sales stock levels may need to be higher at some period ends than others to suit the needs of the business. Additionally depending on the nature of the inventories involved, attention may need to be paid to economic order quantities in order to

balance stockholding costs against the effects and costs of stock-outs. Orders at the level of EOQ may break the specific criteria but will be the optimum order level for the business. The EOQ equation is as follows: -

$$EOQ = \frac{2FS}{CP}$$

Where
F = Fixed cost of each order
S = Annual unit sales (demand of units or of line item)
C = Carrying costs as a % of average inventory
P = Cost price per unit (Flynn, 1997)

S = Forecasted demand of units in the next financial year. The order frequency can also be derived from the above formula: -

$$\text{Order frequency: } \frac{S \text{ or } D}{EOQ}$$

Where S is the expected demand of units of line items in the financial year

2.3.1.4 Criticism of the model

The EOQ is based on the assumption of stability of demand, the existence of a fixed and identifiable ordering cost, and the cost of holding stock which can be expressed by a linear function, shortage costs which is identifiable and so on. Unfortunately steady demand is untrue for a wide range of operation's inventory problems. An EOQ approach therefore has a difficulty in coping with such wild fluctuations in demand. Safety stock in a form of consignment stock should be added in the equation.

The assumption of the cost of stock has also been found to be unrealistic. The real cost of stock in terms of its effect within an operation is far higher than is assumed. For example, placing an order with a supplier as part of a regular and multi-item order might be relatively inexpensive, whereas asking for a special one-off delivery of one item could prove far more costly. Similarly with stock-holding costs, although many companies make a standard percentage charge on the purchase price of stock items, things might not be appropriate over a wide range of stockholding levels. The marginal costs of increasing stock-holding levels might be merely the cost of the working capital involve. On the other hand, it might necessitate the construction or lease of a whole new stockholding facility such as a warehouse. Operations managers using the EOQ type approach must check that the decisions implied by the use of the formulae do apply (Pycraft, Singh and Phihlela, 1997).

The most fundamental criticism of the EOQ approach comes from the Japanese inspired JIT philosophies. The EOQ model is criticized as a prescriptive device, which takes many costs associated with ordering as fixed rather than encouraging an approach, which tries to reduce or improve costs (Pycraft, et al, 1997)

2.3.1.5 Inventory Information Systems

Most inventories of any significant size are managed by computerized systems, which have a number of functions, most importantly the updating of stock records, the generation of orders, the generation of inventory status reports and forecasting demand.

- Updating stock orders

Every time a transaction takes place (such as the sale of an item or the movement of an item from a warehouse to a truck or the delivery of an item into a warehouse), the position, status and possibly value of the stock will have changed. This information needs recording so that

operations managers can determine their current inventory status at any time.

- Generating orders

The two major decisions we have described previously, namely, how much to order and when to order can both be made by a computerized stock control system. The first decision, setting the value of how much to order (Q) is likely to be taken only at relatively infrequent intervals. The system will hold all the information which goes into the economic order quantity but might periodically check to see if demand or order lead times or any of the other parameters have significantly changed and recalculate Q accordingly. The decision on when to order on the other hand is a far more routine affair, which computer systems make according to whatever decision rules operations managers have chosen to adopt that is either continuous review or periodic review. Furthermore, the system can automatically generate whatever documentation is required or even transmit the re-ordering information electronically through an EDI system (Pycraft et al, 1997).

- Generating inventory reports

Inventory control systems can generate regular reports of stock value for the different items stored, which can help management, monitor their inventory control performance. Similarly, customer service performance, such as stock-outs or the number of incomplete orders, can be regularly monitored. Some reports may be on an exception basis, that is, the report is only generated if some performance measure deviates from acceptable limits (Pycraft et al., 1997).

- Forecasting

All inventory decisions are based on forecast future demand. The inventory control system can compare actual demand against forecast demand and adjust the forecast in the light of actual levels of demand (Pycraft et al, 1997).

2.3.2 Debtors

Debtors derive from past sales levels or demand of goods and services, making the criteria for debtors more logical than that for inventories. However the level of debtors could be affected by significant debts still on the ledger, which are more than two and a half months (75 days) old. The acceptable level of debtors should be viewed within the context of the credit terms policy of the business. The structure of the discounts paid for early payments balanced against the cost of paying debtors could mean that it pays the business to allow debts to become old, provided of course that they are eventually paid. It is common practice by companies to offer customers inducements in the form of cash discounts to reduce debtor days. Debtor level overall may be significantly influenced by the timing of large receipts in some businesses. Apart from the criteria outlined, it is also important that individual debtor balances are kept within customer credit limits.

To have good credit management it is important to: assess the credit risk of your customers, chase overdue accounts and assess the effectiveness of credit control (Ridley, 1993).

2.3.2.1 Assessing credit risk of your customers/client base

Assessing credit risk of the above would involve giving consideration to you credit control procedures. The key elements of what you need to take into account in setting one credit policy control are:

- The terms of trade; notably the period of credit to be granted, and any discounts to be allowed for early settlement. This will largely be determined by practice within the industry but there is usually some scope for differentiation from competitors and between customers (the riskier prospects being put on a shorter period and higher discounts arrangements). It is important to record all the terms agreed.

- On a customer- by- customer bases it necessary to assess the creditworthiness and to establish limits in terms of amount and time. Payment will influence by the economic conditions at a given time and those should be taken into consideration when making terms of trade. Assessing creditworthiness is important particularly for new customers in addition consider proceedings to review existing customers from time to time, especially if they request that their credit limit should be raised. Information about a customer's credit standing can be obtained from many sources e.g. bank references (income and liabilities), trade references (suppliers already giving credit to the customer can give useful information), published information (for companies) i.e. the companies annual accounts and reports will give some idea of the general financial position of the company and its liquidity, credit agencies are willing to give customers creditworthiness at a small charge, company's own sales records for existing customer will show how good a record the client has.

2.3.2.2 Chasing overdue accounts

- Late payments erode profit and can lead to bad debts. Slow payment has a crippling effect on the business. If debtors are not managed well, debtors will begin to manage the creditor as control will be lost due to reduced cash flow and an increased incidence of bad debt will then be experienced. The following measures will help manage debtors.
- Have the right mental attitude to the control of credit and make sure that it gets the priority it deserves.
- Establish clear credit practises as a matter of company policy.
- Make sure that those practices are clearly understood by staff, suppliers and customers.
- Be professional when accepting new accounts especially new ones.
- Keep very close to your larger customers.
- Invoice promptly and clearly.
- Consider charging penalties on overdue accounts
- Consider accepting credit/debit cards as payment option.

Monitor your debtor balances and aging schedules, and don't let any debt get too old or too large.

Recognize that the longer someone owes you the greater the chance you will never get paid. If the average age of debtors is getting longer or is already very long, you may need to look for the following possible defects:
-Weak credit judgement.
-Poor collection procedures.
-Lax enforcement of credit terms.
-Slow issue of invoices.
-Customer dissatisfaction (http//www.planware.org.workcap.htm)

- Any good system will call for response immediately a debtor has failed to pay on time. This does not mean immediately jumping to action but rather follow a sequence of actions e.g. 30 days after invoice date is normal terms, 40th day: gentle reminder letter is sent, 50th day: a telephone call to customer, 60th day: a strong worded written reminder, 70-80th day: more telephone calls plus letter threatening legal action. On the 90th day legal action commenced for recovery of debt (Arnold, 1998).

2.3.3 Cash

The management of cash resources holds a central position in the area of short term financing decisions. Results of investment decisions are estimated in cash terms and the value of a company to a shareholder lies in the ability to add to his command over resources over time, which means to add to shareholder's command over cash (strategic financial management). Cash management is part of the wider task of treasury management, which covers not only the management of the company's cash in the normal course of business-making but also to ensure that the company always has enough cash on hand to meet its bills and expenses and investing any surplus cash. Often the control limit over cash fails to take into account the cash needs anticipated for the near future, which may vary greatly from time to time. For example, cash could be required in one period for a major fixed asset purchase. Attention should also be given to the cost implications of withdrawals from interest bearing accounts (e.g. interest penalties for every and early withdrawals) as compared with any cost associated with allowing cash to fall lower including likely overdraft interest on negative cash holding if appropriate (Arnold,1998).

2.3.3.1 Sources of cash

Source of additional working capital cash include the following:

- Existing cash reserves.
- Profits (when it is secured as cash).
- Payables (credit from suppliers).
- New equity or loans from shareholders.
- Bank overdrafts or lines of credit.
- Long-term loans

2.3.4 Creditors

Perhaps the simplest and the most important source of short-term finance for many firms is trade credit. This means that when goods or services are delivered to a firm for use in its production they are not paid for immediately. These goods and services can then be used to produce income before the invoice can be paid (Arnold, A., 1998). Payables are therefore a source of cash inflow as they are a source of cash outflow for the business. They are a vital part of effective cash management and should be managed carefully to enhance the cash position of the business. Purchasing initiates a cash outflow and an over-zealous purchasing function can create liquidity problems. Consider the following:

- Who authorises purchasing in your company? Is it tightly managed or spread among a number of (junior) people?

- Are purchase quantities geared to demand forecasts?

- Do you use order quantities, which take account of stock holding and purchasing costs?

- Do you know the cost to the company of carrying stock?

- Do you have alternative sources of supply? If not get quotes from major suppliers and shop around for the best discounts, credit terms and reduce dependence on a single supplier.

- How many of your suppliers have a returns policy?

- Are you in a position to pass on cost increases quickly through price increases to your customers?

- If the supplier of goods or services lets you down can you charge back the cost of the delay?

- Can you arrange (with confidence) to have delivery of supplies staggered on or on a just-in-time basis?

There is an old adage in business that if you can buy well, you can sell well (http//www.planware.org/workcap.htm).

The reasonableness of credit policy on creditors depends upon the credit policies of suppliers. Some suppliers may be strict in imposing terms than others. Some may offer attractive settlement discounts for paying business early, in such a case it will be beneficial to the business to pay early than seek to delay payment in order to meet the group's criteria. Delaying payment in order to meet the criteria may also damage relations with suppliers to the detriment of the business. The common business practice is that suppliers are paid 30 days after the invoice date. The calculation of credit settlement period should be linked to debtor's collection period to ensure that the company does not fall short of meeting its obligations. The company's liquidity is very crucial to ensure that day-to-day operations are met. Checking relevant ratios and

credit settlement period monthly will ensure that the financial manager implement policies and monitor the effectiveness of such policies to make the company solvent.

2.4 Driving and Restraining Forces

Management of working capital is essential for the efficient operation of business. In this globalization and intense competition requires that companies cut costs in their operations. Variable costs are therefore one of the most flexible costs to manipulate. In the current globalization era restructuring and cost reduction is a common denominator in companies who managed to turn their businesses around. The efficient use of resources will enable the business to channel its resources to other units/investments with the effect of adding value to life/shareholder wealth. The role of public health care is to provide efficient and effective service to the patients so that it can reduce costs from recurrent admissions and disease episodes. The long-term benefit of cost management is that revenue is directed to where it is needed most. Governments like private sector have to impress fund donors by running their institutions efficiently to attract international funding. The rise and fall of governments in many emerging markets should be a lesson to South Africa that mismanagement of funds and poor controls will destroy the economy of a country. The poor management of government resources has been found to be a common denominator in many financial crises around the world e.g. South America and Asia's financial crisis. These are mistakes never to be repeated by emerging markets. South Africa has pressing and critical issues for which the resources have to be channelled. Unlike private sector, the government has no working capital cycle. Once the sources of revenue have dried up, governments do not have enough debtors from which to generate revenue. The following are some of the factors driving efficient management of working capital:

1. HIV/AIDS is a major cost driver in health expenditure especially in Kwazulu-Natal. Over R3 billion of the KZN health budget had gone towards the improvement of primary health care and fighting of diseases such as HIV/AIDS, Cholera and malaria in 2003. TB remained the major cause of morbidity and mortality in the province. It was exacerbated by poverty, poor nutrition and now also HIV/AIDS." In addition to R4 billion spent by provincial health departments on aids related diseases, funding for prevention of programmes in schools, communities, hospital treatments and community care programmes will amount to R1 billion next year rising to R1.8 million in 2004/5. This is a significant increase" (Minister of Finance, Budget speech 2003).

2. Bargaining power from suppliers of service. The department of health in South Africa is loosing skilled health workers to the developing countries. These countries give attractive salaries and working conditions. If resources can be used efficiently so that revenue can be channelled toward retaining good doctors and paramedics, they (health professionals) may find sacrificing families and many good things about South Africa not an easy decision to make. The remaining health professionals have a bargaining power to salary increase.

3. Private wards in public hospitals. The recent trend in opening private wards in public hospital is actually long overdue. The government, with such a huge funding responsibility would not maintain services without generating revenue from sources other than tariffs, taxes and rates. The WTO requires that governments relax tariffs to ensure globalization and competitiveness; this will have negative impacts on third world countries like South Africa whose revenue comes from tariffs. Rate payment defaults have also been a problem in many municipalities. To compete with private sector for human resources and quality facilities, public hospitals have to start learning cost efficient health care.

4.Budget constrained medical aids are pressurising suppliers to reduce costs, this makes government the cheaper supplier, however the situation is also becoming attractive for new entrants who will enter the industry with low costs but inefficient health management plans which will have serious

long-term consequences for the country. Cost effective quality health care will have a competitive advantage.

2.5 Summary

Literature review has provided managers with a tool for managing capital in a manner that will add value to all stakeholders. The ratios for measuring working capital can be seen as instruments for measuring how well the operations managers use the assets, which have been allocated to them. Working capital cycle, which measures the process of production from reception of raw materials to the time where debtors are converted into cash, is used as a tool to negotiate credit terms. Credit settlement period is linked to debtor days so that money from debtors is used to settle credit instead of loans and interest earning cash. Literature review has also provided insight into the benefits of short working capital and how the components of working capital can be adjusted to from formulae to shorten working capital cycle

From literature review it has been established that in a service providing business where the method of payment is mainly cash, the working capital cycle is shorter and that there are benefits from investment point of view to the institutions who regard working capital not only as tools to carry out day to day operations. The shorter the working capital cycle, the quicker the credit is settled. Discounts received should be seen as returns from an investment. The money received can either be used to purchase inventory or saved to earn returns for the business. Working capital is usually not seen as an investment in government institutions. Literature review shows how government institutions can use capital recovery to their benefit. The study by Azama in 1997 on Defence Business Operations show how government institutions can be run as efficient as private sector by proper costing and management of working capital without compromising quality. In public sector it is not easy to translate benefits accrued from working capital to employee benefits. By applying theory from working capital to practical

environment managers can then realised the worth of managing their departments efficiently.

Management of working capital theories promote responsibility and accountability among all employees such that every individual has to account for deviation from standard or policy of his/her actions. For example where there has been delay at every stage of the process the person involved has to account. Theory therefore set standards of acceptable performance. Just as the financial manager has to account to his superiors about long debtor days, inventory days and credit settlement period, the credit clerk has to account to financial manager as to why there are too long debtor days and what actions have been taken to shorten the days. The sales/marketing department has to account to financial manager as to why stock is not leaving the warehouse, what actions have been taken to stimulate purchases and the constrains encountered in that endeavour. Stock holding is not only seen as collection of wealth by theories of working capital, but as an opportunity of investing the money used to earn returns forgone by buying stock. Not only is stockholding seen as an opportunity cost, but also the cost of handling and storing it is taken into consideration. The cost of stock that becomes obsolete is something that can also be avoided by managing stock properly according to working capital theory. In short literature review has provided managers with tools to manage to measure their performance qualitatively and quantitatively.

Managers are appraised on performance based on standards, literature review provide a wide range of methods for setting the standards of performance and by how far the deviation should be acceptable and factors to be considered before making conclusion on deviation from performance. For example it is not acceptable to jump into the last legal action when collecting overdue debts. Steps according to literature are important to ensure that the debtor is fully aware of the consequences to follow should she/he not pay. Inventory control theories provide ways of grading inventory according to quantity and quality enabling managers to focus

control on assets of high value and high demand. Finally literature review has provided means of creating value in both profit making and non-profit making organisations. Managers have a chose of wide acceptable business practises to apply to their respective departments to operate efficiently. Some methods have limitations, which will not be feasible in certain institutions and departments; literature review prepares managers to such constraints. The above literature review will guide in the methodology and design in the next chapter.

CHAPTER THREE

THE RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This is a qualitative research design. Two cases have been chosen from Kwazulu-Natal public and private health care. One case was chosen from primary health care, and the other from secondary health care level from both sectors. Patient turnover has been used as a representative measure of the size of health care centre. Practices used for managing working capital will then be compared to identify practical feasibility and efficient management. Face to face interviews were conducted. Registers, stock requisition books and patient files were also observed.

3.2 Definition of concepts

Working capital can be simply defined as the difference between current assets and current liabilities. It is the lifeblood of the organization and enables it to meet its day- to- day operations. Working capital encompasses the following:

. Short-term resources

- Inventory.
- Debtors.
- Investments;
- Cash.

Less

Short-term liabilities

- Trade creditors.
- Short-term borrowing.
- Other creditors payable within a year

The major components of working capital though are the following

1. Inventory

2. Debtors
3. Cash
4. Creditors repayable within a year (trade creditors and bank overdrafts).

Management is the process of achieving organizational goals by planning organizing, leading and controlling organizational resources (Gordon, Steven. R. & Gordon, Judith, R.1996). Financial management ensures that the organization achieves it goals by making correct investment and financing decisions, in such a way that value is created for the organization. Managing working capital therefore ensures that the organization achieves its financial objectives by making good investment in working capital.

Public health sector

Public health care operate mainly at a primary and secondary/tertiary levels

Primary health care is health that is accessible and available to patients/the public at an affordable cost. In South Africa primary health care has been free for all since 1996. It is preventive, promotive and rehabilitative. **Secondary** level of health normally has different specialist services dealing with specific diseases or conditions that pertain to but are not exclusive to older persons. The main responsibilities of secondary health care include:

- Inpatient diagnosis and treatment.
- Outpatient services.
- Care of persons with complex or rare diseases or conditions is shared with tertiary level services.
- Laboratory services.
- Referral to specialist care.
- Pharmaceutical services.
- Support to primary health care level.
- Rehabilitative services, including psycho-social services.
- Training and education of health service professionals.

Tertiary health care offers the most complex health care. In South Africa there are seven medical schools directly linked to tertiary hospitals complexes, offering specialised services. Responsibilities of tertiary health care services include the following.

- Provision of a full range of specialised medical, surgical, psychiatric diagnostic, therapeutic and rehabilitative services.

- Specialised multi-disciplinary care for older persons with complex and multiple chronic conditions and diseases.

- Support to secondary level hospitals, doctors and other care providers.

- Research and quality of care audits

- Training and education of health service professionals

- Specialised support services, including specialised pharmaceutical services.

3.3 Formal Study

A formal study approach to this research dissertation has been applied utilizing both primary and secondary data. Personal interviews have been conducted and respondents where given open ended and closed ended (forced choice) questions.

The objective as mentioned earlier on is to establish whether the existing practices for managing working capital are consistent with the principles of working capital management. Private sector is used as a model against

which practices of public sector could be compared. The main objective is to investigate whether these practices can result in the delivery of efficient health.

High incidences of HIV and AIDS, unemployment, and poverty pose challenges to managers of health care institutions both in public and private sector. The rate of doctors and nurses who leave public hospitals due to poor salaries and working conditions is growing very fast and can be avoided if revenue is good.

The KwaZulu Natal province is one of the major cost drivers in public health, deteriorating conditions and low salaries is a major concern to all. Not only do doctors and nurses leave behind a huge skills gap, they leave behind already overworked staff with low morals. The main objective of the study is to help government focus on cost drivers and implement policy that will ensure that governments departments are run as efficient as private sector without compromising efficient delivery of health care and device means to increase revenue.

Two cases from both primary health care and secondary/tertiary health care level have been chosen to meet the operational definition of health care. The two cases chosen are representative of big health centres as measured by patient turnover. There practices used in these institutions are compared to those followed in the private sector. One is a primary health care clinic based in KZN serving the health needs of medium to low socio-economic class and the second is a hospital also based in KZN and also serving mainly low socio-economic group .The motivation for choosing the two cases is based on the size in terms of patient turnover, resources needs, high expenditure and therefore their need to exercise high levels of control.

3.4 Method of data collection

Interviews were conducted at an administrative and operational level. Since clinics mainly have stock as the major component of working capital, focus was on issues of control of stock from vendors to different clinics and from the clinic to the end user. For hospitals all components of working capital have been studied with more focus on debtors, stock and creditors.

3.4.1 Case 1(Primary health care level)

Primary health care is health care that is easily available, and accessible to the community at an affordable cost. It covers preventive, promotive and rehabilitative health care. Primary health care is a free service in South Africa. The free primary health care service was introduced in South Africa for all patients since 1996, therefore there are no debtors. Situated in KZN province the clinic is one of the biggest and busy clinics in the Inner West Municipality area. It had a patient turnover of about 130 602 per annum in the year 2002 excluding family planning and immunizations. The clinic provides service to the majority of poor people who are mostly unemployed and suffer from poverty related diseases. It is situated next to hostels and informal settlements of people coming from the neighbouring Eastern Cape Province, Lesotho and Swaziland. It falls under Inner West city council whose budget allocation for 2002 for stock was R310 000 (for drugs and surgical sundries).

The clinic staffs constitute mainly professional nurses with primary health care speciality, an enrolled nurse who helps in the well baby clinic, a clerk for keeping patient records and a cleaner. Occasionally a doctor visits the clinic to review certain cases. Diseases are managed according to protocol and where there are complications; patients are referred to the regional secondary/tertiary hospitals. Although there are referral hospitals allocated patients in the area, they will always prefer to go to hospitals of their choice

preferable those who where predominantly African hospitals during the apartheid era, which result in them still carry more burden than the other referral hospitals.

3.4.1.1 Primary data

Primary data have been collected in a form of personal interviews from managers and staff at an operational level. Respondents were asked structured and unstructured questions to allow them to limit answers to what has been asked and to also to allow them to explain the working capital policy in detail. Constraints are expected where there is protection of information and questions structured taking into considerations need by companies to protect certain information.

Interviews (Primary health care)

1 Stock

Q: How often do you order stock?

Stock is ordered monthly. Clinics have deadlines for submitting their orders and have to stick to those deadlines for the whole year; however there is flexibility for emergencies. In cases of emergencies for example where there is an outbreak of a certain disease, orders can be placed as emergency order stating the rational. The written order is then sent to the procurement department for approval and processing.

Q: How do you determine whether orders are based on actual level of demand or historic estimates?

Every clinic has a stock control card where the quantity ordered is entered on the card. This cards are sent to the central pharmacy operate as a warehouse. Once collected from the pharmacy the quantity received is debited into the same card. Every time stock is used it is credited from the balance. The role of the pharmacy is also to ensure that clinics stick to their stipulated stockholding levels. There new order is therefore a top-up for the existing balance.

Q: Do you choose suppliers according to price competitiveness or choose them at random, irrespective of what they charge?

Once stock orders have been collected from respective clinics, they are sent to expenditure department, which will then place an order with the vendors. Procurement is carried out according to chapter 13 of public finance act. The choice of vendors is also based on the same act. Vendors will send the invoice to the expenditure department then payment department for settlement. Sometimes vendors send invoices to the clinic's administrative department. In that case invoices are sent via the expenditure department to the payment department.

Q: How often is stock checked for expiry?

There is no policy for checking expiry dates; however a LIFO (last in-first – out) method is followed for stock usage. This means that the stock carried over from last month is used first.

Q: Do you ever have slow moving stock that will be lying idle for a long time in the stock room?

Yes we do have sock that will not be used at certain periods due to decrease demand thereof. Diseases become less prevalent at certain periods and tend to be out of line with forecasted demand.

Q: Is there a system for tracing such idle stock and how do you ensure that it is used before expiry date?

There is no system in place to for tracing idle stock. The pharmacy staffs visits clinics quarterly for stock taking, as a result the stock does expire unnoticed in which case it is then discarded.

Do you ever have stock-out problems in the clinics?

Yes or No?

The respondents was that yes, clinics do experience stock-out problems.

Q: Would you say the lead-time from order to delivery is unacceptably long?

-Strongly agree.

-Moderately agree.

-Agree.

-Moderately disagree.

-Strongly disagree.

The chosen response was moderately agreed because the orders are placed very much in advance, but not to a point where the lead-time seriously hampers the day-to-day operation of the institutions.

Q: Do you ever experience problems with stock theft?

Yes or No.

The response was that there are problems with stock shrinkage from time to time but that a team of investigators is helping the municipal to trace the culprits and let the law deal with them accordingly.

Q; What actions do you normally take when you run out of stock and need to dispense urgently?

-Check with other clinics for availability.

-Refer patient to other centres.

-Place an emergency order.

-Send patient away to come back in future.

-All of the above.

The response was that all the options above would be tried in descending order as they appear above. However with essential drugs it seldom happens that the patient goes home without any treatment. There are substitutes in most cases to give to the patient.

Q; How soon do you pay you creditors?

As soon as the invoice is received it is sent to the payment department and settled within the month of delivery of stock. There is seldom a delay, unless they send their invoices late.

2. Cash

Q: How do you handle cash receipts?

Patient pay either cash upfront, pay by cheque or by credit card. Actual banking must be done at least three times a week or every working day. Minimal levels of cash are held as petty cash. Rd cheques are sent to the patients to settle. Where the bank has cleared a redeposited RD cheque 7 days is allowed to after re-depositing. Communications with the patient regarding transactions is captured in the text.

3. Debtors

Q; How do you manage your debtors?

Every month 5 days after the month end run all amounts in 120 days must be flagged. At 150 days the list is compiled for handing over to the collection agency.

-At 30 days an overdue letter is sent to the patient with a statement of a friendly reminder informing them that the clinic has not yet received payment from them or the medical aid.

- At 60 days from day of service all medical aid balances outstanding are suspects. All overdue statements are sent with a red sticker attached.

-At 90 days aging a terse letter is sent together with a statement informing the patient that the medical aid has not paid and the immediate payment should be made to avoid agency collection.

Q: Which measures are taken to avoid bad debts?

High-risk patient are flagged based on their credit record. Circumstances where patients are flagged are:

. Where patient's benefits have been exceeded

. Where there is any patient liable portion outstanding

. Where medical aid refuses payment for some reasons.

. Where contact address or telephone details are not valid.

. Where there have been RD cheques.

. Where there are amounts outstanding in 120 days and over.

. Where a patient has been handed over for collection.

. Where amounts have been written off as bad debt.

. Where diseased/insolvent/under administration estates are involved.

Q; what is the clinic's policy on normal, doubtful and bad debts?

For consultancy departments all debts excess of 150 days are deemed as doubtful debts.

For pharmacy all debts in excess of 120 days are deemed to be doubtful debts

The regional accountants are responsible for computing the required provision for doubtful debts on a monthly basis according to the different departments. For consultancy:

- All amounts on the age analysis of at 150 days attract 30% provision.
- All the amounts on the age analysis of 180 days attract a 50% provision.
- All amounts on the age analysis of 210 days attract a 75% provision.
- All amounts on the age analysis of 240 days attract a 100% provision.

Debtors' module analysis:

- Private debtors from 120 days old attract 75% provision
- Unpaid levies account all aging attract 100% provision

The credit controller oversees recommendations of bad debts to be written off, follow up on such bad debts and handovers and handle queries. Identifies which accounts are to be written off as bad debts or handed over for collection. He/she discusses all such accounts with managers who need regular update regarding successful/unsuccessful collection of those bad debts identified.

The regional manager should check the calculation of the collection agency claim and monitor the claim in relation to the bad and doubtful debts recovered by collection agency, according to the contractual obligations and sound business sense.

4. Stock control.

Q: How often do you order stock?

Major stock components are divided into surgical sundries and drugs.

The drugs are dispensed by the pharmacy and each day the pharmacist prints the usage report. The usage report is then assed by the pharmacist to establish ordering needs. The pharmacist then places orders according to usage and need. The order is then placed with stock link. Some drugs like the scheduled drugs are ordered monthly and so are surgical sundries. Stock-out problems are as a result a rear occurrence because of speedy delivery service and the fact that the pharmacy prints out a usage daily and then top-up stock as soon as levels are down.

Q: How do you manage stock movement?

The last-in-first-out system is used; once goods are received the assistant packs them into shelves. The shelves are packed with new stock behind the present stock. Because of the nature of movement (fast movement) there is seldom obsolescence. Expiry dates are also noted as a matter of policy and any item with an expiry date less than six months is marked.

Q; How do you ensure that stock is delivered in good order and exactly the quantity ordered?

- The assistant receives the ordered goods and stamps the suppliers invoice copy 'goods received- not checked.'
- The supplier's invoice is then checked against the items received.
- Any discrepancies between the invoice and the items received must be clearly noted and the invoice stamped' CREDIT-REQUESTED'.
- A copy of the credit request is attached to the invoice.
- Any price discrepancies dealt with in the same manner.

Only items actually received are entered and goods placed in shelves.

The debtors clerk then check each invoice against the stock received report.

The invoices are then sent to the bookkeeper/Regional accountant for payment

Q: How often is stocktaking done?

The pharmacist conduct cycle counts on a daily basis. Otherwise the other types of stock counted monthly.

Q; Do you ever have under-recoveries? If so how do you handle the problem?

There is a good stock tracking system in place. Stock can be traced from the shelf to the end user. Every item dispensed for the patient is entered into the register and against the patient's records in the computer. Whenever there is stock missing staffs start by checking the register to determine the date on which the item was used then go to the computer to check against the patient's name.

Q; Do you ever have to discard stock because it has expired?

Stock is monitored regularly. Drugs (all drugs) have a register, which is updated daily and drugs expiry dates recorded daily. There are times though when certain items will not be used until they expire in which case it is then discarded.

3.4.1.2 Secondary data

Patient's records where also observed to establish whether there where incidences during their visit to the clinics where patients could not have treatment because of stock-out. Clinic registers on patient attendance where also observed to that effect. Stock cards where observed for stock balances and stock movement. Drug registers where observed for monitoring expiry dates and registers for scheduled and essential drug list was observed.

A private clinic of the same size as the public clinic in terms of patient turnover was used as a benchmark for the feasibility of principles of working capital. It has a managed health care program, which incorporates strict cost control and treatment control and emphasizes preventive and promotive health care. Although the clinic is almost of the same size as measured by patient turnover, the difference is that all the components of working capital are present in private sector. The same questions asked

above were asked and interview was also conducted on administrative and operational staff. The clinic has both cash paying and credit patients and therefore unlike public sector financial management is serious business, questions regarding creditors, cash and debtors where asked as follows: -

3.4.2 Case 2(Secondary health care level)

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PUBLIC SECTOR

A public hospital with the highest patient turnover in the region was selected for analysis. Before 1994 this was a predominantly African health care institution and a referral for mainly low-income groups and a small percentage of the higher income groups, which constituted mainly of its staff members. However after the introduction of the regionalization system it started to attract patients across racial lines but mainly from low socio-economic class

3.4.2.1 Debtors.

User fees contribute a very small percentage to the public health care revenue. There has been a marked decrease in household revenue contribution since 1996(see table 1.1 to 1.3 NHA public health care revenue. 1996.)

In the introduction of the free health policy in 1994 resulted in reduction in revenue due to reduction in debtors. There has been two phases to the free health policy. The first phase was the introduction of free health care to pregnant women and children under the age of six years on June 1994.The second phase of this policy was the introduction of free primary health care for all patients on April 1994 (McIntyre,1996). User fees are generally seen as having two major goals, namely to generate revenue for health services and to influence service utilization ("particularly to deter frivolous use") (McIntyre and Khosa, 1996). The developing country experience,

particularly in Africa is that gross user fee revenue rarely exceeds 5% of the recurrent health sector expenditure (Creese, 1990).

Given that fee collection and administration costs are generally high, net user fee revenue generating potential is even lower. Thus user fees are unlikely to be major source of additional revenue when they rely on out- of – pocket payment in countries with low-income levels and/or marked income distribution inequalities. There is however a great user fee revenue generating potential where there is higher level of medical aid payment (insurance coverage) (McIntyre, 1996). Imposing fees to the poor can therefore have disastrous consequences to prevention and promotion of health and disease management. International studies have shown that imposing user fees can in fact deter the use of essential health services. For example a study in Swaziland have shown that the most substantial utilization decreased following a fee increase for essential primary health care services such immunization and the care for dehydrated children.

3.4.2.2 Payment categories

Payment system is categorised according to affordability. It is divided into four categories: - **H0** category is for pensioners, non-medical aid and formally unemployed patients, **H1** is for the single income patients with an income level of R36 000 maximum per annum and family unit from R1.00 to R50 000 per annum, **H2** for single income from R36 000 – R72 000 per annum and family unit from R50 000 – R100 000 per annum, above **H2** patients are placed on full paying patient category including those on medical aid. The fees levied from a full paying patient will be itemised as per service rendered **UPFS** fees R112 deposit.

Table 3.1 Public sector fee payment categories per income.

Fee Categorization	nsultation Fee	Family Income
	Free	Pensioners and formally unemployed (Have to produce UIF card as proof of unemployment)
H1	R20.00	Single income from R1 000 – R36 000 per annum Family unit from R1 000 – R50000 per annum
H2	R85.00	Single income from R36 000 – R72 000 per annum Family unit from R50 000 – R100 000 per annum
UPFS	R112.00	Any income above H2 above). Placed on full paying patient category including those on medical aid.

3.4.2.3 Debtor days.

Limited information was received regarding management of debtors. When the patient gets admitted in the outpatient department a file is made and the patients name entered into the computer system. The clerks will get into contact with the patient when she/he comes to hospital to be admitted again. If the patient owes the hospital even when the last admission was many years ago, he/she is told to make payment first or is referred to the Superintendent. There does not seem to be debtor control system in place. Although the admitting department does have occasional admissions of medical aid patients, there is no prior membership confirmation or authorization request for benefits before admission in that department however. It seems like the accounts department takes over the responsibility of confirming membership and once furnished with information from the outpatient department. Staff realises the risk of admitting such patient before confirming benefits but cannot do anything about it because they are restrained by policy and staff shortage.

3.4.2.4 Bad Debts

Because of poor or non-existent debtor management there is a relatively large amount of bad debts although due to information control such statistics could not be provided. Staffs also admit that patient take very long

to pay and most of the time will be identified only when they come for repeat visit. The situation therefore present a possibility of huge debt default and bad debt writes off. KwaZulu-Natal has a high level of unemployment and most patient who are referred to tertiary institutions come from very poor backgrounds therefore debt default could be anticipated. Staffs also has a problem with patient who will classify themselves at the lowest category even when they have good income because of poor credit management systems and the fact they would prefer to take advantage of cheap state facilities when their benefits are eroded. According to the admitting department very often patient have to have their categories changed when they are later identified and sometimes have to leap from **H0** to the highest category i.e., UPFS, when this patients cannot afford to pay their liabilities upfront then a stop order is made through the employer to pay.

3.4.2.5 Stock

Stock (medicine and medical supplies) is the major cost driver in government expenditure. Although there was a sizeable reduction in medicine and medical expenditure in 1998/1999 despite a public outcry then about the unavailability of medicines in most of the public health care centres. One would then suspect that in their endeavour to control cost stock becomes an easy component to control hence a drastic reduction in medicine and medical suppliers (see table 5.6).

Medicines are categorised into essential drugs and other general drugs. In terms of the national drug programme (NDP) an essential drug list has been developed. According to this programme an essential drug consist of those medicines (using their generic rather than selecting specific brand), which are considered essential for the prevention and management of 90-95 percent of the common and prevalent conditions in the country. It serves to promote rational use of medicines, and to contain the cost of medicine use (department of health 1996b). Given the fact that stock is a major cost driver in the public expenditure and the government's efforts to reduce the cost, stock control should receive highest priority of control from an

operational level to management level. Stock is divided into ward drugs and medical supplies or surgical sundries. The following questions where asked regarding stock management:

Interviews (Secondary/Tertiary health care)

PRIVATE SECTOR

1 Stock

Q: How often do you order ward stock?

Ward stock is ordered every month based on historical estimates. There are times when there is not enough stock available in which case an order is placed with pharmacy to top-up. Surgical sundries are however ordered only once a month.

Q: How do you ensure that stock is delivered in the same quantity ordered?

When the pharmacist delivers stock, it is checked with the person in charge for quantity, and expiry dates. Both the pharmacist and the person in charge sign the invoice after checking.

Q: How do you manage stock movement?

Previous stock is used first and once received from pharmacy and the stores it is packed at the back of previous stock. Stock usually moves fast because the institution is very busy.

Q: How often is stock taking done?

This is done once a month for drugs by the pharmacy department and this is mainly done to check for expiry stock and to top-up to required levels of stock holding when necessary.

Q: Do you ever have under-recoveries?

There is no system for stock tracing in public sector. Once stock is delivered to the ward it assumed that the patient would consume all of it. Sometimes there are unusual rapid movement but one just trusts that the patient is the end user. It is a matter of trusting staff with ensuring efficient health care delivery through proper and regular treatment.

Q: How often is stock checked for expiry?

Stock is checked for expiry dates monthly.

Q: What is done with stock that is close to expiry?

Medications are usually taken to the pharmacy once close to expiry; however because the institution is too busy, we seldom get expiring medications. Medicals supplies are not monitored for expiry because in most cases we run short of stock than having an idle stock.

Q: What do you do when you run out-of stock before the end of the month?

We start by loaning from other wards and if we are unsuccessful then the last resort will be the stores or the pharmacy. If those places cannot help then substitutes are used or procedures postponed until stock is received.

Q: How often is stock ordered from vendors?

Orders are placed every month according to individual departmental needs. The departments have to place their orders with the stores or pharmacy well before the end of the month for processing. Every departmental manager ensures that the units complete their order requisition before the stipulated deadline.

Q: Do you choose vendors based on price competitiveness?

Yes chosen vendors are price competitive and procurement is done according to chapter 13 of public finance act.

Q: To what extent do you experience stock theft?

There has been a problem in the past but those responsible have been dealt with accordingly.

Q: To what extent do you have measures in place to ensure that stock is received in good quality and the same quantity ordered from the vendors?

There are control measures in place i.e., the invoice will be checked against the order for correct quantity, however stock have disappeared either in transit or stores.

2. Cash

Any cash kept in the institution?

Low levels of cash are kept in the institution as petty cash. Banking is done is regularly as possible to keep to stipulated levels of petty cash.

3. Debtors

Q: What is the percentage of your debtors to revenue?

Debtors contribute a small percentage of revenue. Most of the debtors are medical schemes and most of them are bad debtors. The need to chase our debtors regularly is probably greater than in any sectors

4. Creditors

Q: How soon do you pay your creditors?

Creditors are paid as soon as we receive the invoices that are in the month when the purchase is made. However there are times when there is a delay when the approval takes long due to the nature of public sector structures.

PUBLIC SECTOR

The public sector hospital was compared to a private hospital of the same size to determine how feasible the principles of working capital are to the real environment and the extent to which gaps between the two sectors exist.

The private hospital also hold the same amount of stock and the questions asked above where also asked to the hospital staff from administrative section to the operational level.

1 Stock

Q: Which types of stock do you use?

Medicines and medical supplies. Medicines stock is kept in the pharmacy and medical supplies kept in the stores. Relevant departments are responsible for ordering each type of stock.

Q: How is ward stock ordered?

Each ward has a contingency stock, which is used in cases of emergencies. There is a stipulated level of stock holding and whenever the levels are below the pharmacy tops-up. Surgical sundries are also ordered from the stores and kept in the ward for emergency use. Each ward is allocated stock according to need, based on historical estimates.

Q: How do you ensure that quantity delivered is as dispensed by pharmacy or stores?

The ward clerk is in charge of ward stock. His/Her responsibility to receive, pack and monitor stock movement.

Q: Explain how stock is managed in the units?

There is strict control of stock in the ward. Every patient will have his/her treatment ordered by the doctor on admission. As soon as the treatment is ordered it is fetched from pharmacy and labelled with the patient's name. The treatment is charged to the patient or his/her medical aid as soon as it is dispensed. This is kept in the medicine trolley in a small cubicle with every patient's name. The quantity issued by pharmacy will be compared to the quantity used on discharge. The ward stock (contingency stock will only be used when the pharmacy does not have the ordered treatment and in cases of emergency. As soon as the treatment is issued to the patient by the pharmacy usually on the same day or by the next day it is replaced to contingency stock.

Contingency stock and surgical supplies are checked everyday. Every item used is charged on the patient's charge sheet. Whenever there is a missing item it is usually easily traced to a patient immediately and the staffs is accountable for missing stock. Records of used stock are kept on patient's charge sheet and stock register. This applies to both medical supplies and drugs.

Q: Do you ever have under-recoveries, and how do you account for them?

The issue of under-recovery is taken very seriously at both a unit level and administrative level. Meetings are held monthly between the different units and the finance department to discuss losses, under-recoveries being a major topic in such meetings. Under-recoveries are a sign of poor management of stock and the avoidance thereof is emphasized in each unit everyday. The ward staffs are accountable for under-recoveries and will therefore ensure that they do not occur.

Q: How often do you monitor stock for expiry?

The pharmacy keeps record of items dispensed and expiry dates. The computer software records stock and its expiry date, therefore six months before expiry the items are highlighted and followed closely. There is a good relationship between the hospital and its vendors. Stock is sent back to the vendor at about a month to expiry and will therefore be debited to the vendor and credited the debtor. The computer software records stockholding and is able to trace every stock to its destination. When an order is placed from a certain department, the software starts by removing from the bin old stock. It also helps to trace stock that's been lying idle for a longer period

2. Debtors

Q: What is the percentage of your debtors to revenue?

Debtors contribute a large portion of revenue especially medical aid debtors. We do have non-insured debtors by they make a small percentage of the total number of debtors are mainly those who for certain reasons medical aids cannot cover their costs.

Q: What are your debtor days?

Debtor days allowed is 45 days. The hospital tries by all means to recover its costs within the 30 days of service delivery. However consideration is taken of financial problems the patient is encountering in which case the patient well reach an agreement with the hospital to pay through debit order or whichever way and amount the patient will afford until the whole debt is paid up.

Q: What measures are taken to avoid long debtor days?

Every medical aid is allocated a debtor's clerk. On admission the debtor clerk confirms membership and availability of benefits for members. Where there are levies to be paid they are paid upfront or on discharge. On discharge the patient's file is prepared and every item charged before the patient leaves the ward to make sure that nothing is due to the patient. The statement is then sent to the medical aid and a copy to the patient. It is each debtor's responsibility to ensure that the medical aids pay in time. For the non-insured debtors, 30days after invoice date are regarded as normal

terms, 40 days thereafter a gentle reminder letter is sent, 60 days thereafter telephone call plus a letter threatening legal action is sent.90 days, a strong worded letter is sent informing patient that legal action will be taken should he/she fail to make payment, 120 days statement sent to agency for collection.

3. Bad Debts

Q: How do you manage cash to ensure that opportunity cost is avoided?

The hospital tries by all means to hold minimal levels of petty cash. Actual banking has to be done at least three times a week or everyday depending on the levels of cash held.

4. Creditors

Q: How long to you take to pay your creditors?

Creditors are paid on delivery of stock or within 30 days of delivery.

Secondary data where also studied for example, charge sheets, patients files records of stock ordered (ward stock) and computer programs for ordering stock.

3.7 Summary

There were differences in the two sectors on information releasing, the private sector being freer to give information compared to public sector, which suggests that there is a lot of information control in public sector especially at secondary level of health care. Differences could also be identified in the control of working capital components. For example there seem to be strict control of debtors in private sector more than other components, probably due to debtor's importance in revenue generation and profitability in private sector. In public sector stock seem to be the most important component of working capital obviously because of the amount of investment in stock and also because debtors comprise a small portion of client/patient. The majority of service consumers (i.e. children under the

age of 14 years and elderly patients are exempted from payment in public sector).

CHAPTER FOUR

DATA ANALYSIS

4.1 Introduction

Responses from different interviews and secondary data i.e. files and registers from different departments were analysed. Findings on the management of working capital in the public sector show that although a lot is being done, especially at primary health care level to control working capital, there is still a lot more to be done to achieve efficiency. Of particular concern is the control of inventory, which is the major cost driver in public sector expenditure. Inventory decisions at all levels of health care seem to be mainly based on historical demand. This, is however understandable, because it is not easy to forecast demand for health care. The worse thing that can happen is for patients to die because due to lack of stock, there was no medicine or medical supplies to save their lives.

4.2 Analysing different Components

The different components of working capital are analysed with the objective of identifying the shortfalls of each component in order to address those weaknesses individually to ensure that all components comply with the principles of efficient management of working capital as outlined in chapter two.

4.2.1 Stock

The need to have sufficient stock to deliver health services should be balanced with the cost of holding stock and the risk of obsolete/expired stock. Private sector health care, which also has the highest patient turnover, keeps minimal ward stock (called contingent stock), which is used in cases of emergency and is also well controlled. Patients' medicines are dispensed on admission by pharmacy under the patient's name, enough to cover the patient's whole disease management. Just-in-time delivery and

contingency stock serve as safety stock to minimise the risk of failure to deliver service due to stock-out. This principle can be feasible in the public sector. Just-in-time delivery, contingency stock and dispensing according to individual patient need from pharmacy directly to patient also eliminates the risk of keeping stock that is moving slow and costing business sector by investing in idle resources (money tied in idle stock which sometimes end up discarded because it expires)

It has also been established that monitoring idle stock does not help in anyway according to cases studied, except for a private hospital which has a good relationship with its suppliers, which allow returns of stock that is close to expiry or has already expired. In all these cases studied, staffs try by all means to monitor idle stock and follow it until expiry date. It does not help the organization to know how much stock has become obsolete and ended in the waste bin, it will instead be useful to learn that once discovered it was transferred to other units which are more in need of that particular stock, be it a at the same business unit or at other units at different levels of care. A software programme that records stockholding, stock movement would be of great use as proven by the private sector management of stock.

Another observation is that, compared to the public sector, private sector stock is controlled from the moment it is delivered from suppliers to the end-user (patient), and will be traced from the dispensary or storeroom to the patient. Public sector on the other hand lacks such control measures for a number of reasons. Staff in the public sector complains that it is not possible to do so, one of the reasons as being that they are understaffed, irregular attendance by patients, inability to have permanent filling because patients shift from one clinic to another shopping for better "diagnosis" and better "treatment".

It is also alleged that as a result, patients have abused free treatment by collecting it from different clinics to sell to the neighbouring states and the

elderly people. This happens because the clinics are not that far apart, therefore a patient is able to have a service on the first clinic, destroy the file and go to the next. Even when the patient does not destroy the file, no one will know that she has been to other clinics earlier to collect the same medication. Although one cannot conclude that such medication is collected for sale, there is evidence that treatment that treatment is often sold at pension pay points at cheap prices by certain people. Elderly people are willing to pay for the treatment because they regard going to health care centres to collect treatment time consuming, time which they need to look after their grandchildren. So, having treatment at pension payouts is very convenient for them, albeit at an extra cost.

What has also been observed is that staff in private sector is also understaffed and overworked. What makes the situation worse is that they have very high patient turnover, which puts even more pressure on them, and have very demanding patients. Despite all the pressure, they are committed to ensuring that things are done the right way and that quality service delivery is achieved at the end of the day. On stocktaking day, each and every item i.e., from needle, syringe and cotton wool swab is accounted for and recorded in stock registers. One person, particularly a person in charge will solely be responsible for stock taking on that day, assisted by a unit clerk. There is a culture of doing the right thing and doing it right. This culture is motivated by the organization through regular performance appraisals, training whenever there is a need to do so and rewarding good performance. For example, finance department evaluates performance weekly in one of the private institutions studied and where there are under-recoveries, staffs has to account and the person in charge educates her staff on how to record usage of items and the importance of doing so.

Performance is not necessarily rewarded in monetary terms. There is a special occasion when all those who managed their departments and their roles are given awards. This encourages all staff members from the finance manager to the unit clerk to perform well and do so consistently and with

persistence. It was discovered that there is no sharing of resources between different health levels and to a lesser extent some sharing exists between units at the same level. For example, when the clinic is in urgent need for a certain drug or medical supply, it could be lying somewhere in another clinic or at a provincial hospital nearby. Usually when a ward or clinic needs stock, it will try the other clinics and not necessarily all, and so is the case with the wards. Because staffs are too busy and short-staffed, they will not search for the stock thoroughly and will be quick to respond that they do not have it. At the end of the day the patient becomes a victim of the system that cannot trace the stock, and share it with other units for speedy service delivery.

If the reason for the above is that each unit or level (primary health level and tertiary level) has its own budget, wouldn't it benefit the taxpayer to have the drug transferred to where it is needed most rather than leaving it to become obsolete? If transferring stock across units and levels is more costly than placing a new order with the supplier, then it makes sense to place a new order right away because an inventory purchase decision need to weigh costs against benefits of purchasing and stockholding.

KwaZulu-Natal public health sector incurred the negative cost for medicines and medical supplies (after Gauteng province) for provincial expenditure in 1998/1999. The 2003 health budget has also seen KZN get a big slice of the budget to ensure the eradication of poverty-related diseases. There is a need to control these resources not only from the financial control point of view, but also to ensure that projects directed towards management of diseases are sustainable. The department of health also hopes to take advantage of a recent change in medical aid rules. In a bid to stamp out inflated claims, medical aid schemes are now allowed to designate specific health care providers and institutions as "preferred providers", tie them to the contract and ensure that their members use only those people and facilities. Some medical aid schemes are already using state facilities, e.g., Transmed.

With all the above changes occurring in the health sector, public sector has to get geared to managing working capital or choose to be outsourced to private sector should such opportunities arise? It has also been noted that communication is still mainly by means of pen and paper. Different units use pen and paper to do the ordering transactions; these orders have to be checked by different departmental managers before they go to the actual person ordering. The cost in terms of time, which could have been used to manage patients and deliver efficient service, should be measured against that of installing a few computers, which will enhance speedy transactions.

4.2.2 Cash

Because the private sector provides service for low socio-economic groups, there are low levels of cash. At primary health care level, due to the free health care policy for all introduced in 1996, there is absolutely no cash as a component of working capital. At tertiary level, though it does not appear that there are huge cash inflows, there is a significant amount of cash to be managed. Pensioners and exempted from paying. Categories H1, H2 and UPFs contribute to cash payments at public sector. It appears that public sector accepts hard cash mainly, unlike the private sector, which accepts credit cards and cheques for payment.

Outpatient service requires cash payments more than inpatient services because its charges are usually affordable. Inpatient service on the other hand contributes a large portion of debtors. Each component of working capital has a dimension i.e., time and money. When it comes to managing working capital, TIME is MONEY. If the business generates more cash, it will need to borrow less to finance its day-to-day operations. Although public sector is not a profit making institution, the cash inflows will contribute towards break-even margin. Keeping high levels of cash becomes an opportunity cost of earning interest from the cash. Banking in private sector is done at least three times a week or every working day. Although accurate information could not be obtained regarding banking in the public

sector, due to the protection of information, it appears that due to low levels of cash, banking is not done until there is enough cash, approximately once a week.

4.2.3 Debtors

Cash flows can be significantly enhanced if the amounts owing to a business are collected faster. The major problem with public sector seems to be too long debtor days due to poor management of debtors. This problem stems from lack of strict credit control measures. When a patient gets admitted in public sector and is billed according to a relevant category, one classified under a fee for a service category, there is immediately a contract entered into between the patient and the hospital, which is to receive service as promised by the provider and to commit to paying for the service rendered. Compared to private sector, public health sector does not seem to have clear credit practices as a matter of sector policy, or if there is any, it is not implemented efficiently.

Public hospitals are much too lenient when decaling with their debtors, thus making debtors relax when it comes to settling public sector bills. Although government's role is to promote health and manage diseases, that role is fulfilled at a primary health care level. Public health sector's objective is not to generate profits like private sector, but to reduce the cost and breakeven. The money collected for service provision if collected efficiently will relieve other sources of funding from the ever-growing burden of medical supplies and medicine costs. The weakness in working capital management will deprive government the opportunity of generating revenue, especially from health insurances and reduce public health sector deficit.

It is evident that when a patient is admitted, the admitting hospital will not confirm medical aid membership and benefits in time, because the admitting staff and credit/revenue department operate as different entities. This exposes the hospital to a risk of bad debt. Confirming of membership

and availability of benefits is essential for both outpatient and inpatient service provision because the patient might have been terminated from the medical aid recently or sometime back due to lack of payment or reasons that the patient may not be aware of. The benefits for the condition in question may have been used up with or without the patient's knowledge. It is therefore essential for public sector to ensure that the procedure followed by private sector to manage medical scheme patients is followed.

It has also been discovered that unlike private sector which monitors the patient's stay in hospital and account closely and update patient benefits on a regular basis, the public health sector procedure ends with confirming membership if it is at all confirmed and do not do follow-ups on the patient irrespective of how huge the cost of providing the service is. This increases potential for more inpatient days and also promotes high default risk to both the patient and the insurance provider; it becomes worse where the patient is liable to the account.

Clinical pathway program in King Faisal Specialist and Research Centre was implemented to overcome cost associated with inpatient days and achieved good results. Since its implementation the following results were obtained: Total number of patients admitted for TURBT (Transurethral Resection of Bladder Tumors) was equal to 150, Average reduction in overall length of stay per patient was equal to 3 days, potential number of days avoided equal to 450, number of FBC (Full Blood Count) avoided was equal to 600.Therefore total cost saved was equal to: 450x1000SR=450000SR plus 600x50SR=480 000SR potential cost saving per annum. This is just one of the examples of many of the costs incurred by inpatient days. Although it is a doctor's role to provide health, where procedures are carried out, the patient and the hospital need the assurance that there will be enough funds to cover the costs. If the patient default the payment it becomes the hospital's liability.

Some private hospitals have also been accused of using public health sector as dumping sites for patients whose benefits have been exhausted. A clear policy on receiving transfers from private hospitals would prevent public hospitals from being used as dumping sites once these private hospitals have utilised all patient's benefits.

To have good credit management, it is important to assess credit risk of your customers, chase overdue accounts and assess the effectiveness of credit control. Assessing patient's credit risk would not be an easy task to do for the public health sector since it violates the patient's privacy, however chasing overdue accounts and assessing the effectiveness of credit control should not be a problem provided the structure and systems support the execution of such a task. It has been discovered that the public health sector does not have the structures to support the successful chasing of overdue accounts ad monitoring debtors. To have sufficient management of debtors and chase overdue accounts with success the following measures have to be in place: -

- Have the right mental attitude to the control of credit and make sure that it gets the priority it deserves. The finance department in the public sector does not seem to give credit control the priority it deserves, partly due to lack of human resources to do so or the skills to perform such tasks. There is also no clear policy regarding deliverables by the credit department.
- Once clear credit practices have been established as a matter of policy, the department has to make sure that these practices are well understood by patients, staff and suppliers.
- The structure should also be flatter to allow decision-making at an operational level. Bureaucratic government structures impede decision-making at the operational level and also hinder staff from taking initiatives. If structures can be replaced by policy and regular performance appraisals,

control can be achieved. The financial management department must have a clear policy and procedures working capital management clearly defined.

- To have the procedures carried out must be outlined. Staffs need to have deliverables clearly defined. The deliverables must state what each staff member should do, how often it should be done, and when. For example, a credit controller include ensuring that rejections from medical remittance advices are processed, following up on late payments, reconciling statements, generating statement runs daily, sorting accounts according to medical aids, daily, weekly, monthly, etc, etc. These practices where absent in public health sector and the reason given was that due to lack of staff, it is not easy to carry out those tasks.

Aging debtors are not only due to non-existence of efficient credit management practices, but also stem from delayed invoicing. Unlike private sector where the patient is invoiced immediately on discharge, the public health sector takes sometime to send invoices to the parties liable for payment. When a patient gets discharged from the private hospital, before the patient leaves the ward, the bills are prepared and statements for both the patient and the medical aid are prepared. When the patient leaves the ward, he/she will be in possession of the first invoice and the other one will be sent to the medical aid or liable party at the same time. The difference between the private sector and the public sector is that the ward clerks have to meet the deadlines, i.e., patients discharged today must be billed for all items used and invoiced today, otherwise the clerks have failed themselves by not delivering according to promise. They are also accountable for failing to meet their expectations.

Information processing and sharing is mainly manual in the public health sector than private sector. Efficient management of working capital requires accurate, timeous recording and regular information updating. This

inefficient means of communication delays decision-making is time and resource consuming and makes it difficult to monitor working capital. Information technology would help to shorten the bureaucratic government structures. Another example of a health institution that managed to add value to the business through installation of computers to improve operations is McCord Hospital. In 1998, McCord was faced with a challenge of meeting a 46% subsidy reduction due to bad economic conditions and mainly because of the redistribution of health resources. Its funding came from government donations and grants. Fee income made a significant contribution as compared (see income statement below).

Table 4.1 Mc Cord Hospital consolidated income statement for year ending 31 March 1998.

Consolidated Income Statement for the year ended 31 March			
	2000	1999	1998
	R	R	R
INCOME	22 803 896	17 830 863	11 675 902
Revenue Income	19 654 011	14 430 288	8 917 710
Donations received	934 415	2 866	2 758 192
Interest., grants & sundry revenue	2 215 470	3 397 709	-
EXPENDITURE	53 373 849	46 320 239	49 298 036
Salaries and wages	33 683 105	28 276 247	28 172 629
Catering	2 127 734	2 122 197	2 420 258
Domestic services	2 928 592	3 055 329	3 601 108
Supplies – General	1 100 099	885 386	905 938
Medical	8 124 127	6 213 147	5 723 849
Maintenance	1 159 943	1 831 455	4 844 897
Miscellaneous expenses	3 593 172	3 241 725	2 598 221
Postal & telephone services	530 567	533 736	668 366
Transport costs	126 145	161 017	362 772
NET HOSPITAL COSTS	(30 569 588)	(28 489 376)	(37 622 134)
KZN Health Department Grant	28 823 00	28 341 084	37 896 703
Abnormal item – VAT refund	1 842 448	-	-
Surplus/Deficit for the year	95 860	148 292	274 569
Surplus/Deficit – Beginning of year	(69 350)	78 942	(195 627)
Surplus/Deficit – End of the year	26 510	69 350	78 942

McCord is a semi-private hospital whose financial aim then was to breakeven. This it planned to achieve through generating more income by improving cash flow management and reducing costs by controlling expenditure.

Its strategy focussed on areas of marketing, structure, communication systems and culture. Turning the hospital around was a major challenge more especially that it wanted to ensure that change does not affect human resource morale and patient care. Staff reduction was done by natural attrition. McCord's had a remarkable achievement mainly because it has a strong culture (see income statement). Human resources are the drivers of the strategy; if the culture is strong it will support the objectives of the business. A strong culture permeates through the organization's structure make it easy to implement any strategy. Employees have pride of belonging to a religious culture that unites all employees. McCord's has a good history of excellence that is good in student training and patient care. To this date, private hospitals, clinics and medical aids use McCord's as a referral centre for patients to afford in private sector. The introduction of in-house computer training, training staff on marketing and business marketing was also one of the reasons it achieved its goals.

4.3 Suggestions for further Research

Future research would naturally build on the strengths of the research and endeavour to nullify the weaknesses of this study. It will also add to existing literature regarding management of working capital in the public sector. It has been a problem to access guidance to this study because there has been no literature regarding the actual working capital management in the public sector. The study was limited by very strict information control in public sector, especially at secondary/tertiary levels either because of threats of being witch-hunted on the part of administration staff, protocol guiding data collection or because of departmental policy to limit access to information regarding the public health sector. There is a need for further study, it would be very beneficial for government to research management of working capital in its institutions to maximise revenue contribution to costs, breakeven and add value to society as a whole, not only for Kwazulu-Natal province, but also for the whole country.

4.4 Summary

The analysis of data above shows that the different policies in place with regard to the management of different components of working capital. The operations of the different financial department reflect the objectives of those departments. There are obviously less stringent measures in the management of cash flow in the provincial departments. Whether the operations are consistent with department of health's disease management strategies, is not clear. There is however some similarities in different sectors in the management of stock with private sector having stricter control.

There does not seem to be a clear policy in place in public sector as to the management of inventory and measures taken to save cost and control stock movement from the warehouse to the end user. When people do not know the financial value of stock, they tend to waste, hence it is important is important for staff to know the price take of every item they use and its effect on the budget. It would be beneficial for government to conduct further research on stock management to find ways of reducing its expenditure. Stock should actually be treated as the most valuable component of working capital especially in public sector and it should be every staff's responsibility to ensure that returns on investment are earned by ordering and dispensing effective treatment, ensuring compliance and proper usage through follow-up, proper warehousing and controlled dispensing and by exploiting discount opportunities when placing orders. The next chapter will make recommendations which will address the weaknesses identified above with the hope of increasing cash inflow and reducing cost in public health sector.

CHAPTER FIVE

RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

Findings show that there are gaps between private sector and public sector practises in managing working capital. Some differences are due to lack of efficiency on the part of the staff but most seem to be associated with structural problems and policy bottlenecks. The government need to resolve structural problems first before formulating and implementing policies for efficient management of working capital.

1. Government should make structures lean, fast and flexible. Organizations are responding to changes in their environments by ensuring that their structures are responsive to consumer trends, macroeconomic factors, globalization and liberalization. Governments are not immune to such influences. The general agreement on trade and tariffs and the WTO requirements since 1995 makes dependence on taxes as a source of revenue almost impossible for third world countries. The gradual removal of tariffs should prepare the developing and under-developed countries to devise means to generate revenue to reach breakeven points. Cost reductions in many governmental institutions have compromised efficiency and effectiveness and this should not be the case because efficiency can be achieved with principles of managing working capital.

2. Public sector is characterised by structures that are high in complexity, formalization and centralization. This makes it difficult for staff to respond to demands in the working environment and take initiatives. Because of the capital invested in these institutions and the need for stability and sustainability, it is sometimes understood why there is such control from above. However, if authority can be delegated to lower management, government institutions can operate efficiently. Different departments and units can be divided into cost centres so that each department plans its

budget and expenditure with the assistance of the financial manager. Such budgets can then be evaluated monthly to analyse variances and have unit manager's account for such variances. Strategy and structure are closely linked; structures should follow strategy (Robbins, Stephen. P and De Cenzo, David. A.), this will enable the structure to respond to the organization's overall objectives.

The unit managers must have their responsibilities and accountabilities clearly defined so that they can focus on delivering expected results. Rules and regulations should not only be known to exist but be seen to be practiced and respected. Clear financial objectives should be established for every unit and management of working capital be reflected in policy and procedures. Each unit manager must make sure that such policies and procedures are clearly understood by staff and are part of orientation and in-service education. The policies and procedure manual should reflect all necessary practices to reduce cost and increase revenue through efficient management of working capital.

5.2 Recommendations

The following recommendations have been made to help government utilise all its existing resources to generate revenue to boost the cash inflow in the private sector. Although there may be a need to finance the implementation of some systems the long-term benefits are more than the costs.

5.2.1 Information technology

Installing computers would be very beneficial for government in terms of efficient operations, and computers would widen the span of control for top management. Because of the centralization of decision-making power, the speedy, efficient and accurate information will enable decision-makers to share with their subordinates and make prompt decisions. Local area networks are widely used by organizations to share information. These systems enable managers to increase their span of control and distribute

information timeously, accurately and regularly. Having a local area network that checks on working capital management would have many advantages. In primary health care level where it is difficult to keep a proper patient database and monitor the frequency of visits to the clinic and the type of medication dispensed, this system would solve these problems. It would be difficult for those who collect medicines to sell to the public as it is alleged because once the name is entered into the system, it would pick up information regarding frequency of treatment, visits, etc. Not only will this stop corruption, but it would also prevent over-medicalization and creation of drug resistance. Patients have also been found to have poor compliance because they shop around for different diagnosis and different treatments because it is cheap to do so.

Accounts receivable systems track money and other debts owed to the organisation as payments for goods and services are recorded and monitored. These systems generate reports used for checking credit, monitoring bad debts, pursuing overdue accounts and reducing payment lags. Accounts payable systems on the other hand generate purchase orders, and produce checks for paying the organization's bills. The accounts payable system may automatically review the discounts received by the company for early payment of bills, select the optimal time for paying the bills and automatically generate the checks (Gordon, and Gordon, 1996). Cash management systems maintain information about the receipts and distribution of cash. Billing systems generate account statements and bill customers. A general accounting TPS records all financial transactions and classifies them into specific accounts. Periodically, the TPS summarises and consolidates these accounts so that management and providers of funds can assess the financial situation of the organization and act promptly to correct problems whenever necessary. This software could benefit hospitals a lot in managing cash, debtors and creditors.

Introduction of in-house computer training at all the levels will be beneficial as it will equip staff with skills and prepare for employee succession. Poor

computer skills are predominant in government institutions either because such skills are not regarded as a priority to all employees in the public sector or because the nature of employees (coming from disadvantaged backgrounds) has little information systems exposure.

5.2.2 Human Resources management

Performance should be evaluated regularly to ensure that it is up to standard. Staff should not see performance evaluation as a witch-hunt, but as a tool for performance improvement. They should be educated about the importance of performance evaluation. The evaluation procedure should also not be used as an instrument to single out poor performers for elimination. Performance evaluation should be seen as feedback on the implementation of policy and procedures. Where there are deviations from set standards, it serves as instrumental in identifying a need for training and re-training. Credits should be given where they are due to encourage all employees to do well. The appraisal should preferably involve both management and peers to ensure it excludes bias. Once below average performance is identified, the working environment should be studied to establish whether the job fits the environment. Sometimes the job fits the environment, but the personality is not conducive to that working environment. Human resources have a role to play to ensure that the environment is conducive for working, and where there are the personality problems, psychotherapy and behaviour adaptation would be the option. Employee support structures have not been part of the public sector institutions and are as essential as the strategy itself.

Human resources are the backbone of organizations and drivers of strategies. Addressing employee problems and supporting them is very important element for job satisfaction. It is more important now in public sector than ever before because of high rate of employee turnover from the public sector by all health workers who go to other countries for greener pastures. The government has already lost highly skilled employees and not

all sacrificed their jobs and good family lives because of very attractive salaries. This issue need to be addressed as a matter of urgency to avoid disasters in health care not only in Kwazulu-Natal but also in the whole country. For those who are very skilled and could be lured back, the environment should be made receptive and all promote skills and knowledge sharing.

As mentioned earlier, the measurement of achievement and the reward for good performance against the organisation's objectives can be a powerful motivator for delivery of corporate strategy. The findings show the difference between staff in the private sector and the public sector in motivation levels. Although in some instances staff in the private sector was more understaffed than in the public sector, it was amazing how they show high levels of motivation in carrying their duties right and effectively. Of particular interest was the high pressure that private sector staff has from demanding patients and authority to deliver their quality service at all times. Staffs in the private sector are set goals to achieve. These goals are communicated in all means of communication i.e., newsletters, information technology via e-mails and in brochures in duty rooms. These are measured quantitatively and qualitatively. All staffs show commitment to these goals and see them as achievable. Most of the measurements focus on working capital management and attitude towards patients. Feedback is received from patients or clients, whereas financial managers do evaluation for efficient management of working capital. The staffs are then rewarded accordingly.

The rewards are not necessarily monetary, in fact are seldom in a form of remuneration. A special day, organised at corporate level, is chosen to make it special for recipients of these awards. This has been discovered to be the greatest motivator among staff. There are allegedly differences in staff earnings in these two sectors, the government being the better paying employer than the private sector recently. Motivation plays an important role in the implementation of any strategy. Public sector should ensure that

people are motivated to do the "right thing" and do it effectively. Service delivery by the nature of its intangibility is very challenging to deliver. Employees should therefore be motivated to perform well. They should be motivated in the right direction, with consistency and persistence. This ensures that people do not just do the job to satisfy their own personal goals whenever they have a need for recognition and achievement, but because it has to be done so as part of their culture without exchanging it with such achievement and recognition.

Government organizations should also focus on developing a strong culture among its employees. Culture as a strength or weakness has an effect on strategy implementation. The apartheid government has contributed to the existing culture in government sectors, due to distribution and control of resources and how healthcare was structured between the different races. A lot has to be done in this area. The attitude towards people, the organization and fellow workers reflect the culture of the organization. A lot of negative media reports have been directed to the public sector, no wonder there is excessive control of information. The current government must be commended about the "Batho Pele" initiative, translated "people first" principles. These principles inculcate a culture of good service to the people. The goals of Batho Pele must however be measured to ensure that it delivers according to expectations and those who perform according to standards rewarded. People should also be taught to respect government assets. This applies to both the demand and supply side.

The culture of wasting is common among public sector employees and patients because they probably do not know the value of the assets are not aware what they are worth. One patient admitted that until the clinic ran out of stock on pain killers, she did not value them, and would consume a few when in pain that day, throw the rest in the bin and go to the clinic after a few weeks to collect more. It was only when she had to pay for the tablets that she started valuing them. Dividing department/units into cost centres will change the attitudes of both the demand and supply side. It will

make them aware of the cost involved in providing the necessary service to each patient. The very employees are not aware of the cost per patient in public outpatient and inpatient most of which they are responsible for creating. Staff and patients should be given short lectures on financing and accounting for working capital and the benefits to them of managing government resources efficiently. Lectures on marketing will also contribute a lot towards changing the staff attitudes toward their patients and their jobs. These lectures should form part of orientation of new employees and as an ongoing in-service lecture to all those in management positions to share with subordinates in their respective departments.

The public sector has a multi-disciplinary team of highly skilled staff and people would choose the best team to do the "job" however the structures, culture and attitude discourages most people from demanding service from the public sector. The state of the wards and slow patient processing have been singled out as one of the factors deterring people from demanding service from such institutions. All these can be resolved if a culture of doing things right and benchmarking one's service against the best. Because service is an intangible product, it is unfortunately measured by people's attitudes and material things like equipments, facilities, and general hygiene in the environment. Public sector has potential of achieving the above at a minimal cost with existing or a small change in human resources.

Fortunately, most of the staff working for the private sector has had exposure of private healthcare either as patients or working there on a part-time basis. There is no need to deliver super service in the private sector and change when in the public sector. The problem with the public health staff especially at lower levels is the misinterpretation of the role of the union in conflict management. Belonging to a union to them means job security whether the person has broken the agreement in the contract or not. Labour relations should form part of the education for general works. Understanding employer's rights should be emphasised as much as

employee rights are emphasised. In a competitive environment in which government is not immune, delivering according to standards and job description only reserves job security. Employees should be made aware that people, not employers fail themselves by not performing according to expectations. Every organization needs commitment of its human resources to achieve its goal. Human resources is therefore an essential element of the working capital decision and would not be motivated to do the right thing if they do not know how it is done, why it is done and when it is done.

5.2.3 Breakeven objective

Like any non-profit –making organization the major financial objective of public health sector is to breakeven. Either reducing cost or increasing revenue can achieve a breakeven point. In 1994 only 2.8% of medical scheme covering was on public health sector facilities. However the desegregation of formerly white hospitals, and consequent pressure on resources in these previously privileged institutions was almost certainly the main explanation for the exodus from public hospitals by medical schemes members.

5.2.3.1 Increasing demand for public health care

Revenue can be increased by increasing demand for public health sector services. Attracting demand would be a major challenge for public health sector because of poor quality services. Unfortunately the quality of a service is measured by the facilities and the providers of services, which need a lot of development in public sector to meet standards. Public health sector has been unable to meet the quality standards because of shortage of financial resources to improve the quality of facilities and develop human resources. The other alternative would be to increase user fee. However this option has also been found to discourage demand for health services by the poor majority who are in critical need for health care. This would have serious consequences for disease management in the whole country.

5.2.3.2 Implementing social health insurance

Social health insurance is so far the most appropriate way of generating revenue for public hospitals. It would provide a mechanism for drawing funds into the public sector, which are currently devoted entirely to the private sector. At present nearly 60% health spending occurs within the private sector. Social health insurance funded services would low and middle-income workers and their families while the rich could continue to purchase additional services. (www.hst.org.za /sahr/2000/chapter 7.htm). Through social health insurance the public sector could then divide its products into economic and higher premium service. The differentiation would however be in terms of facilities (hotel amenities) and not in terms of the quality of clinical care. However the efficient management of working capital practices should first precede the successful implementation of Social health insurance so that cash inflow from savings is used to improve the quality of facilities and the effective running of the system.

5.2.3.3 Reducing inpatient days

The cost reduction option should however be done in a manner that does not compromise patient care. Managers' often safe cost at the expense of efficient patient care for the sake of positive appraisal. There is still a lot of room for decreasing total cost in private health care. Total cost refers to both variable and fixed cost. Fixed cost is not easily manipulated but variable cost is. The major variable cost in health care is inpatient days. Fixed cost is mainly cost incurred towards employee salaries. Reducing inpatient days could therefore have positive results in generating revenue. Public health sector tend to have more inpatient days than private sector. These findings are based on medical insurance hospital authorizations. Public hospitals have been found to request authorization long after the patient have been admitted and seldom make a follow up on the availability of benefits. Because there is no pressure for the health providers to expedite treatment and investigations, the patient stays in hospital for much longer than expected in private and semi private sector. To resolve the problem,

processing patients from admission to discharge should be done in a way that minimises the number of days in hospital. For example patients waste enough time in the admission section before they eventually go into the wards and out of the wards to their respective homes especially patient referred to tertiary hospitals. This can be resolved by expediting the discharge process by discharging clerks working in collaboration with admission clerks.

Adopting the principles of clinical pathway practised at the KFSRC mentioned above will be very beneficial in reducing cost by reducing inpatient days. The clinical pathway program is the multidisciplinary care plan which clearly defines the expected progress of the patient through the hospital system in a timely manner. Its purpose is to promote quality patient care while controlling cost (by reducing inpatient days). This is achieved through:

- Standardization of care.
- Best evidence based practice.
- Efficient resource utilization.

Forces driving its implementation are basically the same as those already mentioned in the two case studies, which are:

1. Cost of health care.

- *1/3* medical spending ($600billion dollars) may be for unnecessary out of date or even dangerous treatment.
- Hospital errors

2. Specific issues for hospital to address.

- Absence of a formal care planning system.
- Error omission.
- Poor discharge planning/education.
- Escalating costs: Due to increased use of technology, inefficiencies on the part of staff resulting in increased length of stay in hospital.
- Increased waiting lists.
- Overutilization of diagnostic tests.

Clinical pathway achieved overwhelming benefits and eventually saved the hospital a lot of money by reducing inpatient days only. The high cost low volume, low cost high volume and high resource use diseases benefited from clinical pathway. It also enhances multidisciplinary planning and problem solving, challenges physicians, keep all team members aware of patient progress and current status, ensure that all interventions are appropriate and performed on time, enhances discharge planning and improves staff satisfaction and communication.

Batch processing will ensure that patient are given attention according to the urgency of their health needs, and that difficult and easy cases are grouped together so that priority is given to the very sick without affecting the less urgent cases. A doctor can then be assigned a batch according to his/her efficiency. It has also been established that patient who come to hospital for minor procedures spent more days than necessary in hospital. This can be resolved by having an outpatient theatre that is designed for all minor procedures (emergency and booked procedures). Patients with minor procedures can then come to the hospital on the morning of the operation for prep-operative care and then get discharged as soon as they have been stabilized.

Discharged patients should also be removed as soon as the doctors discharge them. Transport arrangements should be done well in advance for those who have been referred from the peripheral areas to minimise delay and cost burden by the secondary/tertiary hospital from patients who could have been incurring those costs on the budgets of the hospitals of origin. The arrangement for patient's discharge should be done on admission especially for those staff anticipate transportation problem. Reducing inpatient days reduces the risk of default by both the patients and their medical aids because of less debt burden.

5.2.4 Reducing expenditure on medical costs by the fiscus

Access to private health insurance/medical scheme cover remains probably the best indicator of the distribution of health care resources in South Africa (www.hst.org.za). In 1995 medical schemes spent more than four times as much as the state per head of covered population (Register of medical schemes.1995). The 1995 October household survey on medical scheme membership by provinces and income quintiles show that medical scheme membership is negligible for those families with an average income per member per year of less than R5000 and only the top income quintile has more than 50% coverage (see table 5.1 and diagrams 5.2 and 5.3 below. Access to medical scheme cover also roughly reflects provincial wealth, but with some anomalies. While Gauteng and Western Cape have similar income profiles, there are significantly higher levels of medical scheme cover in the former. Some of these might reflect differences across industries; for example, higher levels of farm employment in the Western Cape where medical scheme cover is unusual (see table 5.1 below).

Table 5.1 Proportion of Population with Medical Scheme Cover By Province and Income Category

Whole Population	18
Family Income Quintile	
1 (<R885 per annum)	2
2 (R885-2444 per annum)	3
3 (R2445-4776 per annum)	6
4 (R4777-11000 per annum)	20
5 (>R11000 per annum)	60
Province	
Eastern Cape	8
Free State	18
Gauteng	40
KwaZulu-Natal	13
Mpumalanga	14
Northern Cape	21
Northern Province	8
North West	14
Western Cape	28

Source: October household survey 1995

Figure 5.1 Proportion of population with medical scheme Cover by province and income category

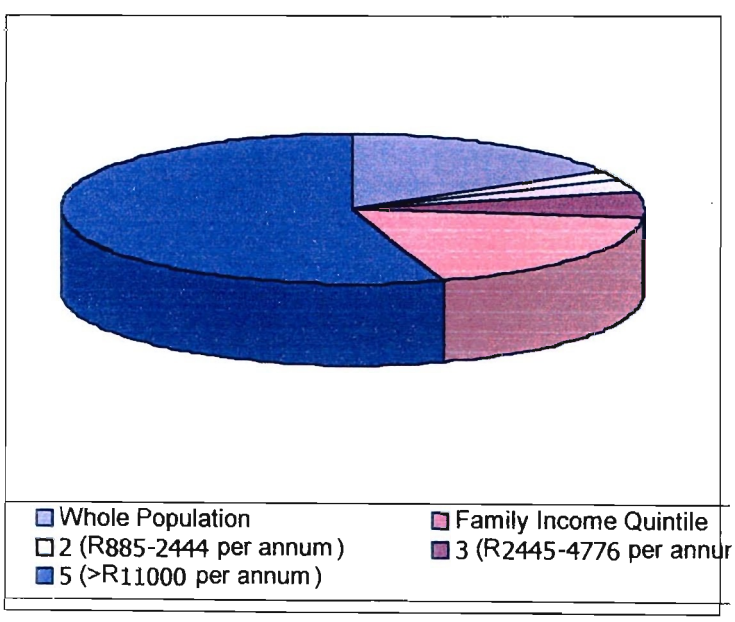


Figure 5.2 Proportion of workers with medical scheme cover

By province

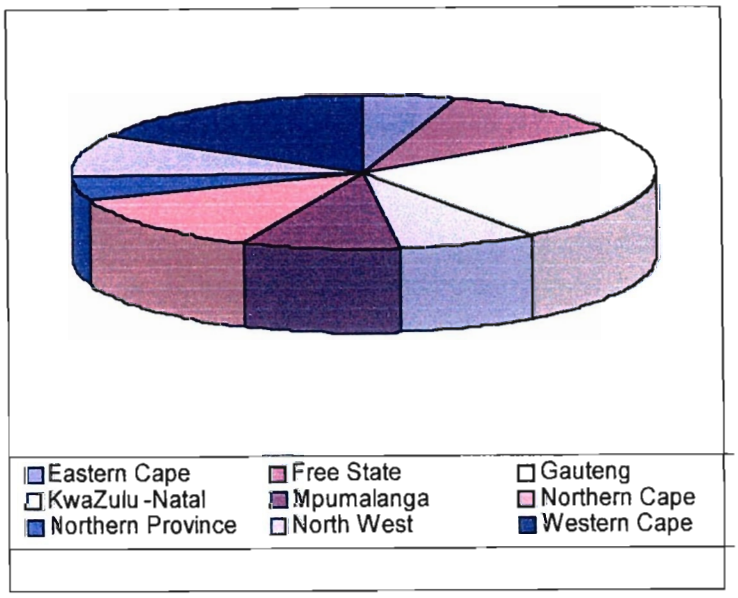


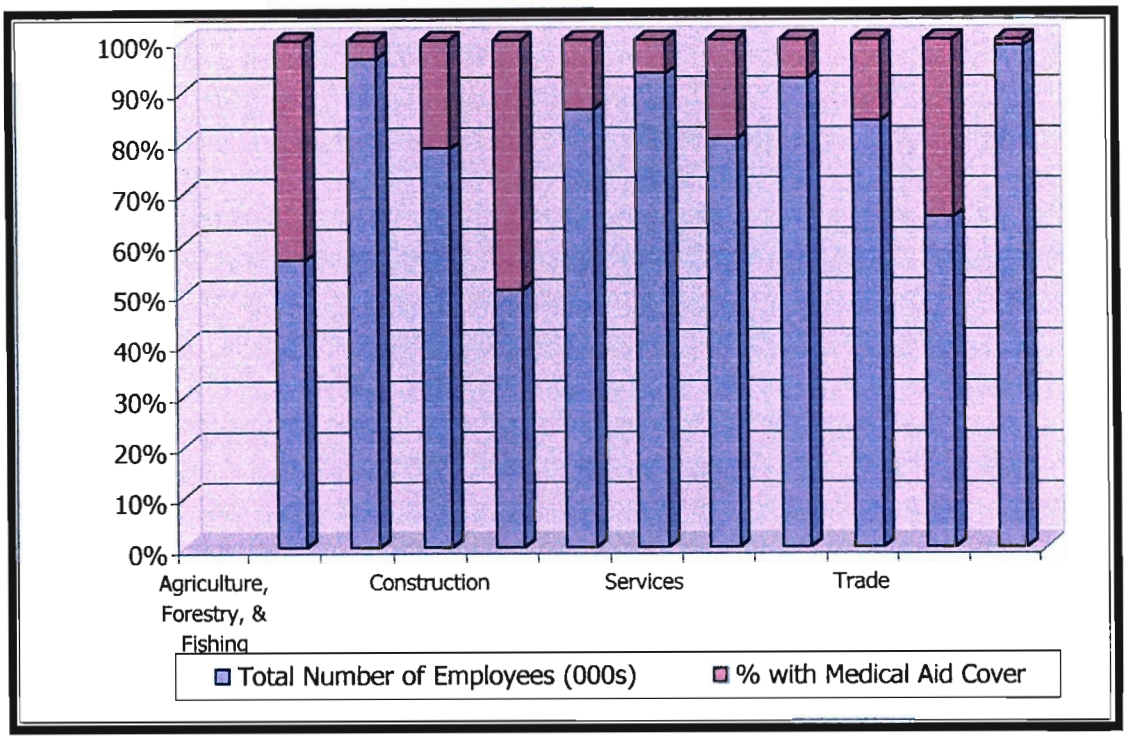
Table 5.2 Proportions of Workers Earning Above the Tax Threshold with Medical Scheme Cover, By Industry

	Total Number of Employees (000s)	% with Medical Aid Cover
Agriculture, Forestry, & Fishing		
Community, Health, &	56	43
Social Services	1631	61
Construction	155	42
Electricity & Water	70	68
Financial & Business	457	72
Services	778	55
Manufacturing	252	61
Mining	625	51
Trade	329	63
Transport &	78	42
Communications	**4431**	**59**
Other		

ALL Industries

Source: 1995 October Household Survey

Figure 5.3 Proportion of workers earning above tax threshold with medical scheme cover by industry



According to the 1995 survey access to medical insurance also differs by age and population group. All population groups show a distinct drop off in membership in older age groups, suggesting that the elderly have difficulty obtaining affordable cover. Even amongst whites, only half of those over 75 years of age have medical scheme cover. Since the elderly generally have high care requirements, this implies a considerable burden on the state.

This problem can be resolved by implementing a compulsory health insurance. This would substantially increase the population who is covered by some form of health insurance and reduce the proportion of the population dependent on tax funded health services (i.e. low income groups, elderly and children below the age of 14 year). The implementation of social health insurance is more essential in KZN and other areas with high incidence of HIV and AIDS since children become orphaned at early ages by the disease.

Social health in South Africa was first mooted in the late 1980's as the mechanism the population could use to harness resources hirtheto spent in the private sector, thereby improving health care coverage. Subsequently it has appeared as a favoured policy option in several documents associated with the new government. Social health insurance appears in many different shapes and sizes across the world. For example the membership eligible to join the social health insurance scheme can range from a small group such as civil servants to the entire population.

However there are key features that are to a scheme and distinguish social health insurance to from other resource mobilizing policies such taxation, private insurance and charging user fees at the point of service. These are:

- It is legislated by the government
- Eligible members cannot opt out of a scheme or be excluded by the scheme.
- Premiums are calculated according to ability to pay (i.e. according to income)
- Benefit packages are standardized, and contributions are earmarked for spending on health service.

Together above features create large 'risk pools 'where a stable membership of contributors and their dependents cross-subsidizes the care of the elderly, sick and poor with premiums paid by the healthy and wealth (www.hst.org.za/sahr/2000) This have the effect of improving equity within the membership of the scheme. Also where a scheme reduces the number of people whose health needs have to be funded out of the budget through fees paid directly to the public services, it has the wider effect of improving equity across the entire health care system.

5.2.5 Involving patients in managing supplies

Clinic and hospital hopping has been identified as common occurrences in public sector. The reason for failure to stick to one institution is shopping for better diagnosis or expecting immediate treatment response. This can be resolved by, taking a full medication history (to establish what medication the patient is on, the frequency of taking the medication, where and when treatment was prescribed).

Where there is information system and information sharing through local area network this history can be accessed from the computer easily. Patient could be educated to take their medication along on every visit to public the health centres. This would safe cost by preventing repetition of the same treatment to the same patients and identifying those who collect stock supplies with the intention of making profit Returned stock would put back into shelves for re-use by other patients who are in urgent need for treatment. Some patients will discontinue treatment because they are reacting to it without bothering to go back to the health centre for investigation. Treatments recall will therefore safe not only financial resources but also loss of life due to drug reaction and drug resistance. Continuous health education will be required to achieve this objective. Patients should be made aware of the benefits to the state and individuals of achieving the goal.

5.3 Summary of recommendations

All the components of working capital will be isolated and recommendations made on each to ensure that they receive the attention needed to address operational and management efficiencies.

5.3.1 Inventory

- Use computerised inventory control systems for both material and patient/clients (that is patient tracing, how

long they have been admitted, when treatment has been commenced and when is patient due for discharge). This helps monitor patient stay in hospital.

5.3.2Debtors

- Establish credit policy as a matter of organizational policy.
- Decrease debtor days.
- Invoice promptly and clearly.
- Chase for bad debts.
- Consider charging penalties on overdue accounts.
- Consider accepting credit/debit cards as payment system.

5.3.3 Cash

- Keep low levels of cash and invest to earn interest income.
- Use a flexible and cheapest credit system (overdraft facility or credit card); evaluate the cost effectiveness of the chosen system compared to keeping cash resources.
- Reduce cash outflow (reduce expenditure and the cost of above components)
- Implement Social health Insurance to generate revenue.

5.3.4 Creditors

- Negotiate longer credit settlement terms.
- Choose cheapest suppliers.
- Negotiate a return policy.
- Negotiate a JIT delivery especially for essential drugs not in stock and those not used frequently.

5.3.5 Human Resources

- Identify training needs.
- Train and develop according to need.
- Equip with marketing skills.
- Educate about labour relation.

- Improve reward systems and working environment
- Implement employee support/assistance programmes.
- Educate about fundamentals of financial management.
- Identify organizational strengths and utilize effectively (especially staff strength)

5.4 Conclusion

In the last decade a variety of approaches have been introduced to help hospitals improve the quality of medical care. Some focus on professional competences through clinical guidelines (Woolf et al.1999), continuing Medical Education and clinical peer review (Van Weert, 2000), others on external control through public performance reporting (department of health, 1998.)

Organizational approaches based on experience from the industry have become more and more popular to implementation of quality improvement strategies in hospitals (bank et al.1995) However single intervention have shown little effect (Grol, 2001) Choice of what to do should be guided by a comprehensive framework enabling a diagnostic analysis of needs (Gourlay, 2003).

Management of working capital cannot be seen as an isolated activity in an institution. Its success depends on the contribution of other systems e.g., human resources, patients, and management support. The joint commission of accreditation of health care organizations has developed a set of specific international standards for hospitals, which are eventually evaluated by health care experts. The requirements focus on staff management (job description, appointment process and crediting competence) and care activities management (admission, discharge and transfer, delivery of high quality services). However the shortcomings of the model is that it pays particular attention on health and satisfaction

measures whereas the strategies for attracting clients to the institutions and retaining them (marketing) and ensuring sustainability of operations (finance) receives very little attention. Efficient management of financial resources is very essential in the sustainable delivery of quality health care in organizations and marketing its instrument for revenue generation.

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