MANAGED CARE: A COST–OUTCOMES ANALYSIS OF SELECTED MEDICAL CONDITIONS/INTERVENTIONS FROM A MANAGED AND NON-MANAGED (TRADITIONAL) HEALTH CARE FACILITY IN BOTSWANA.

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To Trust, my husband,
For his constant love, support, and encouragement;

To our children Thembelihle (Kiki), Thembalenkosi (Bhungu) and Sisasenkosi (Sisa)
For their unconditional love;

and

To my late parents
"P.D." and "Mercy"
who instilled in me the fundamental values
and principles necessary in life.

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STATEMENT OF ORIGINALITY

I certify that, except as noted above, the report is my own work and all references used are accurately reported.

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Signature

ABSTRACT

MATABISWANA, CONSTANCE
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MANAGED CARE: A Cost-Outcomes analysis of selected medical conditions/interventions from managed and non-managed (traditional) health care facilities in Botswana.

As the health care industry undergoes major change, a method of "accounting for quality" has become a key factor in health services delivery and fiscal accountability (Rivers and Glover, 2000). In an increasingly managed care system, **outcomes and costs are continually linked.** The basic premise underlying the delivery of contemporary health care services is that desired levels of **quality must be achieved at acceptable levels of cost.** The nature of a service offering may therefore best be understood as an **"experience" or "outcome".**

The purpose of this study is to explore and analyse the cost effectiveness of selected health care outcomes from managed and non managed health care facilities in Botswana. The study explores and analyses the cost of selected health care outcomes and establishes whether or not there are variations in cost of care and actual outcomes from selected medical conditions and procedures. Through the analysis of patient expectations and their perceptions of what the actual performance is (outcomes) a description of the quality of care is made. The study also aims at determining patient satisfaction levels through the analysis of expectations and perceptions of performance.

The study sample was a non-probability sample which consisted of eighty (80) patients from either a managed care or non-managed health care facility who were within at least forty-eight hours of their discharge from the facility. These patients were drawn by quota sampling from five common medical conditions/procedures; Normal Delivery, Caesarian Section, Gastroscopy, Appendicetomy and Open Reduction and Internal Fixation (ORIF) of a Fractured Femur. Data were collected by use of a questionnaire designed by the researcher which consisted of three sections. Section One addressed the respondents' demographic data. Section Two, was a Likert Scale which was an adaptation of Donabedian's (1980) hospital services framework. The Likert Scale elicited information on outcomes based on the expectations and perceptions of the respondents' original expectation of service performance. Section Three was a semi-structured interview schedule, which was used to obtain qualitative data on satisfaction and quality of care perceived, expected and received by the respondents.

The results reveal that the cost of selected patient care outcomes from the managed and non-managed care facilities differed even though the outcomes did not differ. Cost from the managed care facility was much higher than that from the non managed care facility even though some respondents still felt that there was "value for money". Cost was not a factor in determining patient outcomes as an analysis of perceptions of quality of outcomes by the respondents resulted in a p-value that was insignificant. In terms of overall health experiences then, good, poor, or average health care practices were not dependent on the health care facility visited.

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GLOSSARY OF TERMS

Customer Satisfaction

A psychological concept that involves the feeling of well-being and pleasure that results from obtaining what one hopes for and expects from an appealing product/service (WTO, 1985). Customer satisfaction can also be defined as satisfaction based on an outcome or a process. This way it is the end-state resulting from the experience of consumption. This end state may be a cognitive state of reward, an emotional response to an experience or a comparison of rewards and costs to the anticipated consequence.

Cost of Care (Theoretical Definition)

The final fee paid by each respondent after receiving care for a particular outcome.

Cost of Care (Operational Definition)

Quantitative figure charged by each facility for the outcomes of care resulting from care given to the respondent prior to discharge from hospital.

Managed Care

Maximizing clinical outcomes cost effectively for a given population of people within a defined economic setting (Ebineng, 2002). An organized system of care that seeks to influence the selection and utilization of health services of an enrolled population and ensures that care is provided in a high-quality, cost-effective manner (Federa and Camp, 1994).

Managed Health Care Facility

Health care facilities in Botswana that receive capitation or fee-for-service payment for services provided to patients. The fee structure in this case is in line with that of the medical aid fee structures in Botswana.

Non-Managed (Traditional) Health Care Facility

Government health care facilities in Botswana. Such facilities may admit fee-for-service patients, however their fee structure is very low and is not based on the medical aid fee structure.

Outcomes (Theoretical Definition):

End results, or that which results from something. Conditions to be achieved such as functional status, general well being, or satisfaction with care. Outcomes are frequently categorized as clinical, customer satisfaction or financial performance measures.

Outcomes (Operational Definition):

Scores on the Likert Scale that will address the technical as well as functional attributes of the respondent's experiences in hospital. Such scores will be further enhanced by qualitatively measuring outcomes through descriptive data obtained by using a semi-structured interview.

Outcomes Management

The multidisciplinary process designed to provide quality health care, decrease fragmentation, enhance outcomes, and contain costs. The core idea of outcomes management is the use of process activities to improve outcomes.

Service Quality

The gap between customers' expectations and perceptions (C=P-E). A customer will perceive quality positively only when the service provider meets or exceeds his or her expectations. Service quality is also defined as both better outcomes and more satisfaction.

CHAPTER ONE

1. INTRODUCTION

1.1. The Health Care Continuum

Healthcare is often thought of as meaning Government Health Services. However, healthcare is much more than the usual government health services. Deffenbaugh (1994) describes healthcare as a "continuum of businesses and services aimed at "**satisfying**" customers, who may be the public generally or patients specifically" (p. 37). The healthcare continuum is therefore seen as having a basis in management thinking. The link to Professor Michael Porter's Value Chain shows that healthcare as an industry functions in a similar way to an organization. The health care industry like a firm can be divided into discrete segments that allow all the stages in industry activity to be examined for linkages, integration and interrelationships leading to the potential benefits to patients. The stages of the health-care continuum are research and development, manufacturing, distribution and delivery. The **distribution stage** is characterized by added value and added cost (Wayland and Kleiner, 1997).

1.2. The Health Care Industry

Historically, the health care industry has viewed itself as being operationally different from other businesses. Globally, the industry has been under extreme political and public pressure during the last three decades to control the rapidly increasing cost for treatment. Public opinion has been that the appropriate regulatory price controls have not been instituted in the industry. For the last century in most countries, the cost of hospitals has steadily risen usually faster than the consumer price index, absorbing a larger proportion of the gross national product (GNP) (Chua and Preston, 1994).

Jarret (1998) explains that recently, governments and third party players have attempted to reduce the cost of health care by either paying a fixed fee for a hospital procedure or a pre-approved annual operating budget based on a defined patient mix and census projection. In most countries, steadily higher proportions of the hospital's costs are met by charges to patients. To cover the charges, sick funds acquire more members and thus collect higher premiums. The chances of hospital costs outrunning the resources of the sick funds seem great.

Because the hospital industry seems to have undergone such radical changes including overcapacity and economic difficulties, the result has been that freestanding hospitals, which relied mainly on fee-for-service revenues, could not generate enough patient revenues. This may be the reason why, especially in South Africa, hospitals seem to be having to undergo restructuring; getting merged, being acquired, divesting many of their facilities and services or departments and adopting other survival oriented approaches (Gordiwalla and Gordiwalla, 2002).

The market for delivery of healthcare services has been steadily moving into the private sector as part of a global phenomenon. At every corner of the globe, the realization has dawned that health care organizations like any other have to make a conscious effort to competitively meet customer requirements. Unless the **customer is satisfied** that they have been conveniently provided with **quality care at a reasonable cost**, and risk of adverse **outcomes** have been minimized, health care organizations run the risk of going out of business sooner rather than later (Chattopadhyay & Szydlowski, 1999).

Customer satisfaction is thought to be the leading criterion for determining the **quality** that is actually delivered to customers through the product/service and by the accompanying servicing. Several studies have found that it costs about five times as much in time, money and resources to attract a new customer as it does to retain an existing customer. This creates the challenge of maintaining high levels of service, awareness of customer expectations and improvement in services and products.

Vavra (1997) asserts that knowledge of **customer expectations** and requirements is deemed essential for two reasons: it provides understanding of how the customer defines quality of

service and products and facilitates the development of customer satisfaction questionnaires. Furthermore, customer satisfaction is recognized as of great importance to all commercial firms because of its influence on repeat purchases and word-of-mouth recommendations. Rivers and Glover (2000) further explain that the rules of supply and demand at the macroeconomic level and the determinants of marginal cost and benefit at the microeconomic level govern the health care system, like any other sector of a market economy. The growth of the health care industry and the "business" of medicine have directed more and more attention at **the benefits, of health care in order to have a better understanding of the relative cost of those benefits** in comparison to other purchases that affect the quality of life. The term "**quality**" has been used as the measurement tool to define the benefits of health care (i.e. the actual product that is being exchanged). Quality then, in a simple capitalistic society is, what the customer wants. The market determines what quality is by selecting who can provide the service within the system and continue to operate.

The development of guidelines for care and evidence–based medicine are significant inroads in developing measures of care that are related to **outcomes** that can describe **quality**. It is argued that as this knowledge improves, so will the health care industry's ability to provide standards that can measure quality as related to health outcomes. This in turn can then be matched with calculations on the costs of monitoring these processes to arrive at an **expected cost of care and expected benefit**.

1.3. Managed Care

Planners, purchasers, providers and patients are the basic players in the health systems of all nations. Technological change, demographic shifts, rising consumer expectations, erosion of the doctor-patient relationship and rising health care costs have contributed to the climate of reform. These reforms commonly referred to as "**managed care**" have seemingly changed the role of purchasers of care and strengthened purchase incentives and power to influence providers.

Federa and Camp (1994) **define managed care** as "an organized system of care that seeks to influence the selection and utilization of health services of an enrolled population and ensures

that care is provided in a **high quality, cost effective** manner. Thus, there is more of a focus on a need to **control cost** and extend access to healthcare, along with ensuing that maximum value has been received from all resources used. Managed care must therefore be implemented in a way that demands and ensures quality.

Managed care seeks to reduce variability in medical care by identifying "best practices" and promoting adherence to guideline-based decision making. This includes evaluating the appropriateness of services rendered and the level of care necessary to provide the services. White, et.al. (2000) explain that the logic of managed care systems is that healthcare costs can be controlled in hospitals through the efficient use of resources, thus; cutting costs, efficiency, innovation, and appropriate care are the hallmarks of a managed healthcare system. The aim of the new system is to standardize the delivery of health-care, the length of patient stay in the hospital and even what treatments and tests can be ordered for patients. The new managers are to set new standards of care and delivery using guidelines purportedly developed in clinical practice (Porter, 1995).

Cohen and De Back (1999) describe at least two models or strategies of managed care: fee for service and capitation. The **fee for service** model is similar to the American "Preferred Provider Organization" (PPO). This type of managed health care plan, also used in Botswana, offers subscribers several choices from panels of physicians and hospitals who are reimbursed on a fee for service basis. Different plans offer various arrangements, but typically the patient is responsible for paying 10 – 20% of the total cost of care. It has been argued however, that this system allows prolonged lengths of stay in hospital and high volumes of diagnostic tests and clinical procedures such that insurance based case management needs to closely monitor the medical necessity for all orders in these cases. The **capitation** model on the other hand, offers prepayment to service providers. This model has been criticized for the supposedly poor service quality levels because, as has been observed by many, the tendency is for the service provider to retain the bulk of the capital and skimp on quality care.

In the United States, managed care arose because purchasers were trying to contain costs. Elsewhere, the draw of **managed care varies widely by country and region**. The form

managed care takes differs according to the local health delivery system. Rarely is it a direct knockoff of a U.S.-style Health Maintenance Organization (HMO). The CEO of Associated Fund Administrators (AFA) alludes to this concept in his definition of managed care as he chooses to lay emphasis on the "maximization of clinical outcomes cost effectively for a given population of people within a defined economic setting". The defined population he prefers to contextualise within the available resources and socio-economic variables in Botswana. Saxton and Learman (1998) observe that many organizations not traditionally envisioned as managed care organizations, have embraced managed care concepts, including financial incentives, wellness and patient education, as well as utilization control and disease management. What is clear however is that managed care is nolonger a glitch in the market or an alternative to the mainstream.

1.4. Managed Care and the Health Care System in Botswana

The effects of **managed care** have been found to be profound on many aspects of society. It affects employers, employee relations, hospitals, insurers, and indeed medical practices, physicians and patients. Large employers and employer coalitions are struggling with the issue of how to provide costly medical services to their employees in a more controlled, economical way, yet maintain a level of satisfaction with employees (Ojasalo, 2001).

The health care delivery system in Botswana may be described as pluralistic and can be divided into complementary subsections: the Ministry of Health which is the largest provider of preventive, curative and promotive health care; the Ministry of Local Government and Lands which provides primary health care through its urban and rural network, and a growing private–for–profit sector which comprises private hospitals that mostly concentrates on curative services. Within this sector there are private general practitioners that provide outpatient care in their clinics. The private-for-profit sector is dependent to a greater extent on income from patients who are covered by medical insurance as opposed to self-paying patients. Missions, religious

organizations and non-governmental organizations also continue to be important health care providers whose operation costs are subsidized by the government.

Three major medical aids fund private health care in Botswana. These are Botswana Medical Aid with a membership of close to 20 000 people, Botswana Public Officers' Medical Aid Scheme and Pula Medical Aid who combined, have an average of 55 000 members (Alexander & Ebineng, 2002). Associated Fund Administrators (AFA) administers the two latter medical aid schemes. Various private health care provider services such as Gaborone Private Hospital (GPH) an Afrox hospital in Gaborone, Delta Medical Centre a hospital in Maun and Royal Medical Hospital in Serowe that rely on income from medically insured clients and operate on a fee for service basis continue to feel the impact of cost containing strategies of managed care.

2. STATEMENT OF THE PROBLEM

The **rising cost of health care** globally and locally has affected medical insurance, caused businesses to be a discerning selector of medical care and in some cases given birth to alternative forms of health care delivery such as **managed care**. All these conditions have resulted in **decreased revenue and increased competition for hospitals**. If hospitals are to survive, it seems of paramount importance that costs be contained as much as possible to offset the decrease in reimbursement. Undoubtedly, containing costs is the major challenge for most health care systems including those in Botswana.

Hospital managers continue to seek answers to the question: *How can they increase revenue while keeping the costs down, not compromising quality and satisfying their customers?* There seems to be a ripple effect to the stakeholders in the way raised health care costs continue to impact on them. Increase in health care costs means that medical insurances will be drained as they try to meet these costs; in return, medical insurances also increase member subscriptions which means that the employer must increase employee contributions to the fund, which may result in employees pulling out of such contributory schemes which would result in a decrease in hospital admissions thus resulting in a decrease in the income to run hospitals. There seems to

be erosion of the social justice that is the backbone to managed care. If health care is no longer affordable, then managed care has lost its purpose.

Rapidly escalating health care costs have forced policy makers to seek ways to provide care more economically. Efforts at cost containment encourage managed competition and new health care system configurations. With the increased emphasis on cost containment and competition and the evolution of health care systems, greater concerns about quality of care have emerged. Payers and consumers want to know what they are getting for their money. Basic questions raised are:

- Is the care provided by one organization or agency worth the **expense relative to the care** provided by other organizations or agencies?
- What are the benefits patients receive from health care? What is the **quality**, and is it adequate in light of what is being paid?
- What **outcomes** can be expected, given various characteristics and health states?
- If outcomes are inadequate, what needs to be changed to improve the outcome?
- If outcomes are adequate can improvements still be achieved?

The Botswana public, especially those who are administrators of medical insurances and/or medical aid societies, employers who wholly or partly pay towards their employees' medical aid contributions as well as the very beneficiaries of the medical aid societies or insurances, continue to express grave concerns about the **cost and quality** of health care they receive from health care facilities in general and that received within Botswana.

Providing health care to patients results in the payment of money to an institution, a hospital or a physician at some point in time. The fact that the care may have been paid for by the government, patient's employer, an insurance company or managed care tends to blur the identity of the customer relative to who must be satisfied with the services and the outcomes. Greater public accountability requires that the outcomes of patient care reflect the interests of patients, consumers, providers, purchasers, payers and the public. Employers and insurers want

the most value from the Pula or Dollar ($), while hospitals want clinical outcomes to reflect the highest standards.

It is against this background that the researcher finds it necessary to explore and analyze the cost-effectiveness of selected patient outcomes from managed and non-managed health care facilities in Botswana. The researcher will seek to answer the following questions:

- What is the **cost of selected patient outcomes** from selected managed and non-managed health care facilities in Botswana?
- Is there a difference in the in the cost of the selected patient outcomes from clients who receive care in the different selected health facilities in Botswana?
- What is the **quality of the health care outcomes** that clients pay for in the different selected health facilities in Botswana?
- Are patients **satisfied** by the quality of outcomes and care that they pay for?

3. RESEARCH OBJECTIVES

The objectives of this study were to:

- Determine the cost of care in selected managed and non-managed health care facilities for outcomes of care from selected medical conditions or procedures.
- Determine possible variations in cost of care and actual patient care outcomes of selected medical conditions or procedures.
- Measure and compare the level of discrepancy between patient expectations and their perceptions of what they received (outcomes) in the selected managed and non-managed health care facilities in Botswana.
- Describe how quality levels relate to cost of care

4. SIGNIFICANCE OF THE PROBLEM

As the health-care industry undergoes major change, a method of "accounting for quality" has become a key factor in health services delivery and fiscal accountability (Rivers & Glover, 2000).

In an increasingly managed health care system, **outcomes and costs are continually linked**. The basic premise underlying the delivery of contemporary health care services is that desired levels of **quality must be achieved at acceptable levels of cost**. The nature of a service offering may therefore best be understood as an "**experience**" or "**outcome**". The successful management of a service business thus becomes the management of the quality of the experience for the customer or client. It is this quality of customer experience often known as "the moment of truth" by which service quality is measured. There is no study either in Botswana or regionally that addresses the important subject of managed care with its related concepts of cost and outcomes, which are manifested by customer satisfaction and quality of care.

This exploratory study thus looked at cost and outcomes of care as major variables that determine the repurchase of health care services by any client. While most studies relate to internal (intra-organizational) auditing of hospital care service cost and quality globally, this study moved away from internal service auditing practice in health care and present a cost and quality audit within the wider context of a competitive market.

The relative importance of the technical dimensions of hospital care such as outcome (i.e. the patient free of the disease, pain, or incapacity that caused the hospitalization), physician care, and nursing care will be explored against a background of costs that will cover such care. In this study, the quality of outcome, hospital care and physician care were modeled as components of overall quality of care (Carman, 2000). The research investigated the way that the various attributes of hospital care combined to form an overall attitude concerning service quality. The study further provides empirical evidence on the relative importance of the various dimensions of care and how these evaluations interact with one another.

Donabedian (1984) notes that the true management of quality in health care requires definition and measurement; a balance of quality against cost. It would seem critical then that in any health care setting, quality needs to be addressed, measured, protected and enhanced, evaluated how it relates to cost as well as examine the consequences that flow from that relationship.

Apart from studies done in the USA on the two variables cost and quality of care, there is very little documented in Southern Africa about any aspect of health care **costs and efficiency** of health care services. Lightner (1989) argues that economic competition and markets in health care embody a paradigm shift from the professional dominance that prevailed in most systems to buyer dominance, from a doctor-led pressure for more services to a payer led pressure for **better outcomes** from an emphasis on hospital based specialized treatments to prevention and primary health care. This paradigm shift to buyer dominance promises better health at lower cost. In the new market based era, criteria and measurement of quality are becoming more stringent and more focused on actual **performance and outcomes**.

In March 2000 the CEO of Associated Fund Administrators (AFA), who looks after a client base of more than 55 000 members published a list of pharmacological drug outlets where members could purchase prescription drugs. This list excluded any drugs stores whether within the private hospital settings or not were stocking expensive brand name drugs compared to other outlets that stocked generic drugs that were much cheaper and yet served the same purpose as the brand names (Mmegi Monitor, 2000). In August 2001 the CEO of Gaborone Private Hospital, an Afrox hospital, in a public notice headed, "Quality in Health Care in Botswana: Increase in tariffs on 1st august 2001; cost of medical services (excluding drugs) will increase" announced a further 10% charge on all total costs of care incurred by medical aid patients as a way of meeting hospital costs (Guardian, August 3rd 2001). Explaining the tariff increases, the CEO wrote that "in order to ensure that the superior standard of health care services are maintained...at the Gaborone Private Hospital, we are required to review our cost structure. This has been in conflict with the regulated 10% charge that the medical aid patients were already required to pay on total costs. The issue is still to be resolved. Following this major announcement, an interview with the CEO of the Botswana Medical Aid (BOMAID) fund revealed that they have been processing a significantly increasing number of member claims for consultation and treatment from various hospitals in South Africa (Alexander, 2002). In line with this statement the CEO of the Gaborone Private Hospital admitted that the hospital has been running on 60-75% capacity for the last couple of months. Not surprisingly, this could be as much of a quality issue, as it is a cost issue.

This study may provide some of the explanations to issues raised here.

5. LIMITATIONS OF THE STUDY

- There was a limited availability of locally documented literature on the subject of managed care making it difficult to make appropriate local references.

- The variables cost, quality and customer satisfaction had never been studied together in Botswana.

- The health care facilities that used managed care techniques and concepts were few in Botswana, therefore the sample size was not be big enough to allow for more refined statistical analysis.

- Because of the limited sample to draw from, the reliability of the measuring tools was not tested, as the researcher was required to preserve the available sample.

6. ASSUMPTIONS

An assumption is a statement about conditions in the population that are accepted as true but that are not proved (Polit, 1997: 113). The following assumptions were drawn on the study:

- The respondents in the sample would be drawn by convenience from the population of interest.

- The results would be generalized only to the sample group and not to the population because of the small sample size.

- The choice of the conditions for the purposes of studying outcomes would be based on most frequently treated conditions common to all study settings.

7. CHAPTER PLAN

The study is organized into five chapters. **Chapter one** introduces the study topic to the reader. An overview of the concepts pertinent to the health care industry will be discussed before introducing the study theme of managed care in general and specifically within context of the Botswana health care industry. The reader will be introduced to the **concepts of cost**, and **outcomes**, which set the stage for managed care and are measured through **service quality and customer satisfaction**. The chapter also addresses the purpose and significance of the study. The objectives of the study as well as the study questions, limitations and definition of terms are outlined. **Chapter two** is a discussion of **related literature**. Recent studies and historically significant industry reports, study hospitals' data are examined to form a basis for the study. An integrative approach to the study of the literature relating to the major themes of health care costs and outcomes and their resultant links to service quality and client satisfaction will be discussed highlighting how they apply to the study. **Chapter three** employs selected sampling distributions and the laws of probability to test the hypotheses. Decisions are made whether to accept or reject the null hypothesis thus establish whether or not relationships exist between variables. **Chapter four** describes the methodology adopted. The research participants are described as well as the sampling procedures; data gathering instruments and problems that were encountered are outlined. An overview of the statistical procedures used is described. A description of the research findings is given in **chapter five. Chapter six** analyses and discusses the research findings. Conclusions, implications as well as recommendations are drawn on the basis of the analysis.

CHAPTER TWO

8. LITERATURE REVIEW

Healthcare has shifted from a discipline–driven to a service driven model, and so have the incentives and priorities. Given the largely discussed subject of managed care, several bottom line themes have emerged, the most critical of which seem to be:

- Employers are cutting their health care **costs** and driving change.
- The managed care market is price driven, meaning that **quality** must be redefined and agreed on by all the stakeholders, not just the provider.
- The consumer of services (the person served) is becoming a sophisticated participant interested in **outcomes, value** and **cost.**
- The value of a provider to a payer rests in its ability to achieve the **best outcome** at the right time, in the right place and with the right team and /or person at the **right cost.**
- Managed care and therefore the business of healthcare will not be successful if, in addition to doctors, the people delivering and clinically managing the case are not fully involved in the managed care program development.

Cohen and De Back (1999)

The hospital is the institutional core of the nation's healthcare system. Over the past twenty years hospital costs have seemingly risen much more rapidly than the rate of inflation. Many will argue that the answer to rising healthcare costs boils down to a lack of a competitive environment. Hospitals over the years have not truly been challenged in a competitive environment. However, if hospitals are to survive, it is of paramount importance that costs be contained as much as possible to offset the decrease in reimbursements. Welch and Kleiner (1995) explain that volume purchasing of goods and services can reduce costs quite substantially. This idea, which is common in South African healthcare services, has led to the formation of various purchasing groups and alliances. Group purchasing organizations are corporate entities that negotiate supply contracts on behalf of many hospitals.

Commenting on the inflation problem in South Africa, Kertesz (1997) asserted that the market conditions seemed right for managed care, in South Africa, which had been experiencing an unsustainable medical inflation rate. The cumulative total inflation for all health sectors from 1992 – 1995 was 152% and the country was turning to managed care companies to control costs. United Health Care, whose partners were two large local insurance carriers had developed an HMO-like plan in Johannesburg with an enrollment of more than 200 000. Meanwhile, Aetna's quality measurement subsidiary, U.S. Quality Algorithms (USQA) had signed a three-year consulting agreement with Sanlam Health, South Africa's second largest private insurer. USQA and Sanlam would co-develop and implement a measurement system to analyze physician performance and care delivered to Sanlam's enrollees.

In local and regional markets, demand for managed care health systems and expertise is on the rise fueled by shortcomings in government-run insurance programs and rapidly escalating health care costs. Just as in the United States in the early 1980s, health care costs are rising at an alarming rate in the world market. There is increased pressure to retain costs, and managed care is being seen as an effective relief for that pressure. Many countries, such as Chile, Saudi Arabia and South Africa, that have poor or underprivileged health systems, are good targets for US-style **managed health care systems (Covaleski, 1995).**

As costs continue to soar, neither private business nor the government wants to pay the bill. However, each is trying to shift the costs to the other. Health is generally perceived as a right to which all have unlimited access. The concept of rationing is extremely value laden and emotionally charged for most people especially those in Africa. Rationing is based on allocation of scarce resources. Medical rationing has always existed as an unintentional aspect of any health care system. Medical rationing by cost-benefit analysis is considered the most inherently equitable and acceptable if society could reach agreement on **acceptable costs and optical outcomes**. Wayland and Kleiner (1997) alluding to Dr.David Eddy's proposition (1991) argue that the solution to rising costs is to connect value to cost and weigh the two. They argue that patients should make these decisions as they receive the benefits and ultimately pay the costs.

However, among the myriad of changes in the health care industry, there remains one constant: a sincere desire to deliver a **high quality care** to patients. Nowhere is this more evident than in the broad manner with which **pathways** and **outcomes** maps have been embraced. Caregivers continue in their constant effort to provide the best care possible to their patients. Blancett and Flarey (1998) argue that generally, when the right thing is not accomplished, it is either because they do not know what the right thing is (**outcome**), they do not know how to achieve the desired outcome (**process**) or there are insufficient resources and confusion about priorities (**cost vs. quality**).

8.1. Health Care Costs

Cost economics occupies a commanding position in the contemporary discourse on health care reform. According to the Estimates of Expenditure from the Consolidated and Development Funds (Government Printers, 2001/2002), in the financial year **1997/98-health care expenditure** in Botswana amounted to P319 189 888 compared to more than double the amount estimated in 2001/2002 which amounted to P702 757 670. Projected increases in national health care spending, rising demand for health services, and the emphasis on **performance quality** all require informed decisions about the allocation of resources. Findings noted in the Sixth Annual Survey Report on Purchasing Value in Health Care, conducted by Watson Wyatt Worldwide, HMFA, and the Washington Business Group on Health (WBGH) revealed that overall health plan premium costs for 2001 increased 10.3% for all plan types, with pharmaceutical costs rising at 14.6%. The survey also showed that 70% of employees planned to pass at least some of the increased costs on to employees while only 14% planned to reduce or eliminate coverage for certain services (Healthcare Financial Management, 2001) In the last five years Botswana Medical Aid (BOMAID) clients have experienced an average premium increase of 8%. Against a backdrop of healthcare cost increases of roughly 18% per year purchasers of health care services continue to signal the beginning of a new era in the delivery and management of health care benefits.

Health plans demonstrate a considerable understanding of the needs and priorities of their customers and are highly optimistic that quality of care can be maintained even during periods of significant cost pressures. To combat these rising costs, surveyed employers most commonly cited sharing cost increases with employees through increased employee premiums while a few said they would absorb at least some of the increase themselves, reflecting the importance of affordable health insurance in attracting and retaining employees (Rivers and Tsai, 2001). In seeking to cut costs while providing quality care BOMAID as a health planner has introduced under its maternity benefit the "Birthing Unit/Home Delivery global fee which costs less than a third of the scheme's benefit if delivery is conducted in a hospital setting.

At its June 2001 annual general meeting, the government funded medical aid scheme, Botswana Public Officers Medical Aid Scheme (BPOMAS) detailed in its annual report that "although the scheme had an income of P114.8 million...compared to P96.9 million the previous year, medical claims amounted to P120 million". The financial figures indicated that hospitalization accounted for over 27.6 million while the second largest amount of P26.5 million went towards medicines and another P21.2 million was spent on services of medical specialists. This cost escalation had led to a disagreement between the medical aid scheme and the medical practitioners and the Gaborone Private Hospital (an Afrox Hospital) over the tariffs charged. There was a need to obtain cost minimization cooperation through active and meaningful participation of suppliers of service and beneficiaries of the scheme (The Botswana Gazette, 2001). The concern for rising tariffs was also raised at a meeting of the "Private Sector Representatives to the Health Sub-Committee of the Higher Level Consultative Committee (HLCC)" a committee that answers to the Minister of Health in Botswana. Addressing a committee made up of members from various service providers from the health sector, the chairman registered a general concern regarding the long-term viability of the private health care industry in light of the issue of rising tariffs as well as inefficient delivery processes which were making the cost of provision of care less affordable. He suggested that service providers redefine their processes and come up with those that would ensure viability.

Chang & Henry (1999) argue that **cost and quality** of health interventions are closely linked. Useful, yet rigorous methodologies, to evaluate and **control costs** are necessary, as are methods to **evaluate the quality of care**. A competency required by all health care practitioners is their ability to conduct cost-benefit analyses that contribute to effective resource management.

8.2. Health Care Outcomes in Managed Care

Patient care outcomes are a necessary component of the entire process of care delivery. As such, their measurement and management are becoming more and more imperative in this new era of healthcare. The ultimate outcome measure, i.e. death, is a relatively simple metric, but the effect of medical care will hopefully create positive results prior to the "final solution" (Lighter, 1999). Patient care outcomes have turned out to play a critical role in demonstrating the **value of care in today's managed care environment**. **Variations** in health care are categorized as deviations caused by **systems**, **processes** or **outcomes**, all of which are interactive and interdependent. A system is defined as the functional parts of the organization that interact with one another to deliver care e.g. the billing system. The **process** of care delivery includes a series of actions; steps or operations that lead to an end such as the steps taken to book, register and submit a patient to a ward.

According to Birdsall and Sperry (1997), **outcomes** are the end products of the care or services delivered; simply defined as something that follows as a result of something that is done. Health care providers continue to struggle with identifying methods that provide quantifiable outcome measures. **Outcomes are most frequently categorized as clinical, customer satisfaction or financial performance measures**. An example of a clinical outcome is resolution of infection with a course of correct antibiotics; an outcome reflective of positive customer satisfaction would be a high rating on a patient satisfaction questionnaire; and an example of a financial performance measures outcome would be providing a specific type of surgical care for less money than the medical aid has stipulated. Improving outcomes is the ultimate goal of any variance management strategy.

The management of **variation in both the processes and outcomes of care** continues to gain importance as the health care system evolves within the context of a managed care environment. Variation analysis is an integral part of performance improvement and continues to gain importance as the health care system evolves within the context of a managed care environment. Variation analysis is an integral part of performance improvement and continuous quality improvement initiatives.

The increased competitiveness within health care has fuelled a strong public debate on hospital care service provision. As in other countries, the main emphasis of this debate has been the quality of service provided and the extent to which it is meeting patient needs and demands (Camilleri and O'Callaghan, 1998). Blancett and Flarey (1998) describe a new adage in managed care; asserting that it must be one that must deliver a **high quality service** at an affordable price, with good **outcomes**. Much debate exists as to what is considered "high quality", what "affordable" means and by whose standard, and what constitutes "good outcomes". Measured patient care outcomes provide health care professionals with evaluative feedback regarding the actual care that is being provided. Each care or treatment modality has a particular goal for the patient. Thus, each activity will also have some potential effect on the patient's overall condition and status.

Examining the outcomes of patient care reveals to us whether the patient is responding satisfactorily to the planned interventions and whether the patient is meeting **pre-established benchmarks** for their particular problem at specifically determined times in the course of care delivery. To this end, health care professionals need to assess patient care outcomes constantly to provide a level of quality care and intervene appropriately when patients are not meeting defined **benchmarks** for care progression. Apart from this major reason, other important and compelling reasons to measure and manage patient care outcomes are:

To demonstrate to third party payers and society as a whole the effectiveness of care delivery.

To assist health care professionals in adequately defining the concept of "quality" in care delivery.

To assist in placing a monetary value on patient care delivery related to specific outcomes.

To test collaborative practice interventions and evaluate how synergy among discipline leads to further enhanced care outcomes.

Blancett and Flarey (1998)

8.3. Health Care Outcomes and Customer Satisfaction

Competition on the basis of consumer service is a major factor in today's health care market. As employers drive more and more employees into managed care arrangements, **patient satisfaction** becomes pivotal in big business decisions. Not everyone in the health care industry is quick to embrace the inevitable increase in **customer service demands**. Physicians in particular, have been lauded for skills and competencies completely unrelated to the human element of medicine. Most physicians were trained to diagnose and treat disease, and they pride themselves on **delivering high-quality care measured by cure rates and utilization**. Whether or not their patients find them friendly, informative, and genuinely concerned about them as individuals has been traditionally viewed as incidental (Baird, 2000).

In today's market driven environment, patient satisfaction should be a strategic objective since patient satisfaction is a predictor of patients' willingness to return and to recommend services. While there are a variety of approaches to the explanation of **customer satisfaction/dissatisfaction**, the most widely used is the one proposed by Richard Oliver who has developed the expectancy disconfirmation theory (Oliver, 1980). According to this theory, customers purchase goods and services with **pre-purchase expectations** about anticipated performance. Once the product or service has been purchased and used, **outcomes** are compared against expectations. **When outcome matches expectations, confirmation occurs**. Disconfirmation occurs when there are differences between expectations and outcomes. Negative disconfirmation occurs when product/service performance is less than expected. Positive disconfirmation occurs when product/service performance is better than expected. Confirmation or positive confirmation of consumer expectations causes satisfaction. Dissatisfaction is caused by negative disconfirmation of consumer expectations.

8.4. Service Quality and Expectations

The link between **perceived service quality** and **consumer satisfaction** has received a lot of attention. Quality is undeniably of paramount importance to service providers. Research has demonstrated the strategic benefits of quality in contributing to market share and Return On Investment (ROI). The definition of quality of services has engaged researchers. The product-based definitions were found to be inappropriate although associated. Gronroos(1984) proposes a simple concept of service quality comprising two components **technical and functional quality**. Technical quality, he proposes is what is received and functional quality, the way in which it is received. The detailed interpretation of service quality, which has gained acceptance, comes from the work of Berry et. al. (1990); Bebko, (2000), who suggested a number of dimensions for service quality namely, tangibles, reliability, responsiveness, competency, courtesy, credibility, security, access, communication and understanding customers. These ten were subsequently grouped into five main dimensions of tangibility, reliability, responsiveness, assurance and empathy. The same researchers investigated reasons for the failure to deliver consistent service quality and established what has become known as the "gap model" for service quality. Basically they propose that the inability of a service organization to deliver service quality rests with five gaps, briefly described as:

The gap between customer expectations and service managers' perceptions of what is required caused by a lack of meaningful marketing research.

The gap between the service management's perceptions and the quality specifications set to achieve service quality, caused by indifference, resource constraints or market conditions.

The gap between the service quality specifications and the service delivery gap, caused by incapable processes, systems, and perhaps front line service providers.

The gap between service delivery capabilities and external communications caused by over-promising in promotion.

The gap between customer expectation and perceived service that is a component of all the other gaps.

(Armisted, 1994: 35)

Service quality can be measured by the level of discrepancy between consumer expectations or desires and their perceptions of what they received, as described by the SERVQUAL Scale. Berry and Parasuraman (1991) further explain that **reliability** largely concerns whether the outcome of service delivery was as promised. The other four dimensions concern the process of service delivery or how the service was delivered.

The basis behind SERVQUAL, is the assumption that the difference (gap) between **a patient's expectations** (prior to use of a service) and a **patient's perceptions** (after the actual use of the service) reflects the **quality performance** of the given service (Parasuraman et, al., 1985). According to the SERVQUAL model, customer assessments of **service quality** result from a **comparison of service expectations with actual performance**. Understanding consumer's service quality expectations is thus the key to delivering service quality. However, while the importance of expectations has been acknowledged in previous research of service quality and customer satisfaction, Gro¨nroos, (1982) argue that there is little empirical evidence to demonstrate **how expectations of quality differ** between services, even though the classification of services demonstrate that differences do exist in service characteristics. They point out that while demographic profiles of the consumers have an effect on the expectations of quality for professional services (physicians, attorneys and dentists) there are mixed reports on whether demographics have an effect on these expectations for non-professional services.

Health care quality is a multifaceted, value-laden theoretical construct with quantitative and qualitative dimensions. Discussions about containing costs raise concern that quality will decrease even though studies have failed to show a consistent **relationship between cost and quality**. Leape, et. al. (1995) found no relationship between cost and rates of inappropriate care for Medicare beneficiaries against twenty-three geographic areas. Likewise, Starfield et. al. (1994) found no relationship between cost and quality of care indicators in Maryland Medicaid beneficiaries. These findings suggest that reducing cost does not necessarily result in reduced quality.

Expectations have been defined as an individual's thought or belief of future performance of a service. They reflect anticipated performance mainly influenced by personal experience, word of

mouth communication and the organization's external communications exercise (marketing). It may be argued that expectations may easily be manipulated or controlled by the individual or organization especially for the Botswana private sector for which expectations of service quality are principally the result of a marketing exercise and strategy developed by hospital administrators to depict an image of service quality as defined by management.

Perceptions on the other hand have been described as an individual's formed opinion of the experienced service (Camilleri & O'Callaghan, 1998). From this definition, it would seem as if an individual would have expectations for the service product offered by all those organizations of which he or she is aware. On the other hand, perceptions would be formed only after actually experiencing the service in question. On the question of what the attributes of perceived service quality may be, it is useful to note Gronroos (1990) suggestion that the attributes might be divided into two sets: **functional**, such as ambiance and provider attentiveness that describe the quality of what is delivered and **technical** such as **outcomes**, that describe the quality of what is delivered. Recently the health care literature has referred to the former as "**process**" attributes and the latter as "**outcome**" attributes (Carman, 2000). Carman further states that acute hospital services provide a salient setting to study the Gronroos (1990) dichotomy between the affective attributes of the service experience **(functional attributes)** and the **technical attributes** of **outcomes** and physician care. He reminds that in the measurement of past patient perceptions of quality and satisfaction, hospitals have been criticized for focusing too much on the hotel accommodation dimensions of the study such as food, noise, room temperature and cleanliness rather than on outcomes of the illness episode. Carmen argues that it does not seem reasonable that patients can compartmentalize these two sets. However it would seem reasonable to believe there is some union between the two sets.

Yi (1990) argues that there is confusion concerning this link, since, like quality, comparison between performance and some standard is thought to be a fundamental characteristic of **satisfaction formation**. Kane et.al. (1997) looked at the impact of outcome on satisfaction and concluded that there was more to satisfaction than just outcome. In his study, Carman (2000) asserts that the relative importance of the **technical dimensions** in hospital care, such as

outcome (i.e. the patient free of disease, pain, or incapacity that caused the hospitalization) physician care and nursing care, versus the **affective dimensions** (e,g, food, noise, room temperature, privacy, etc.) has been a source of tension among physicians, hospital managers and health plans. Medical professionals, he argues, prefer to focus only on outcomes. Hospitals and health plan marketers argue that customers evaluate quality on process, i.e. the personal service they receive and the accommodation amenities of the hospital and that the customer is always right.

Donabedian (1980) suggested that the hospital services could be sub-divided into three categories: structure; process; and outcomes. All the different aspects of the hospital; services offered within the context of the overall hospital care product could be classified according to this framework. The application of both **SERVQUAL and Donabedian's framework** for the measurement of service quality is not only widely recognized but extensively documented too. In their study on "comparing public and private hospital care service quality in Malta," Camillori and O'Callaghan (1998) explained that perceptions were compared to the user's original expectations of service performance. If expectations were set too high, then perceptions would be significantly lower than expected for most if not all aspects of the service product. Thus any improvement in these aspects would effectively lead to a rise in patient perceptions of provided service quality. Price played a more important role in the public service user's decision making process (in provider choice) than that played with the private user's choice.

The prime beneficiaries of health care organizations are the clients who seek services. The major problem is keeping the client, not employees or others associated with the organization as prime beneficiaries. The viability of any health care organization will depend on the re-purchases that will be made by clients of the services offered. This is the acid test for all managers.

CHAPTER THREE

9. RESEARCH HYPOTHESES

9.1. Hypothesis Testing

Hypothesis testing involves using sampling distributions and the laws of probability to make an objective decision, which concerns whether or not to accept or reject the null hypothesis (Polit, 1996). A hypothesis' value is ultimately derived from whether or not it is testable in the real world. A testable hypothesis is one that contains variables that are measurable or manipulatable in the world. A testable hypothesis also needs to predict a relationship that can be "supported" or "not supported" based on the data collected. **Rejecting the null hypothesis** indicates the possibility that a relationship or difference exists while **not rejecting the null hypothesis** indicates that there was **no relationship or effect** found among variables.

Whereas the researcher could not use any inferential statistical tests for testing the hypothesis because the sample was small, the results of the study have been used to reject or uphold the hypotheses set above. The results were as follows for the following Null Hypotheses **(H0):**

- There will be no difference in outcome costs of selected medical conditions between managed care and non-managed health care facilities. This hypothesis was
- Patient outcomes (benefits) will not change with the change in costs.
- Patient satisfaction levels will not change with the change in outcomes in both managed care and non-managed care facilities.
- There will be no significant difference between what respondents perceive as quality care and what they expect to be quality care in both managed and non-managed health care facilities.

All the hypotheses above were not rejected as indicated by the study results. This indicates that there was no relationship or effect found among the variables under study.

CHAPTER FOUR

10. RESEARCH METHODOLOGY

10.1. Study Design

Due to the fact that there has not been any such study conducted before in Botswana, this survey was that of an **exploratory descriptive design.**

10.2. Setting and Population

The study was conducted in Botswana. Data were collected from two health care facilities: one managed care and another non-managed care facility. The Gaborone Private Hospital was chosen as the managed care facility of choice while the Princess Marina Hospital (Gaborone), which is a large government referral hospital, was chosen as the non-managed care (traditional) hospital of choice. Delta Medical Centre, a small private hospital in Maun previously included in the study setting was eliminated due to the fact that the researcher had a time constraint and Delta Medical Centre delayed in consenting to be included as one of the study settings. While the non-participation of patients from Delta Medical Centre may be seen as a limitation, the researcher assumed that as a managed care facility the majority of its respondents would have had similar characteristics as those of the Gaborone Private Hospital, the difference possibly being in the cost structures. Delta Medical Centre services patients belonging to Medical Aid insurances like Gaborone Private hospital. Because of this elimination, of Delta Medical Centre, the sample at Gaborone Private Hospital was increased by three respondents in each quota thus allowing Gaborone Private Hospital a sample of fifty rather than the previous sample of thirty-five indicated in the initial sampling frame. Princess Marina Hospital, as a non-managed care facility is one of the two largest non-managed care health care facilities in Botswana, whereas the Gaborone Private Hospital is the largest private and managed care hospital in Botswana.

The sample of choice was that of selected hospitalised patients who were to be discharged within at least forty-eight hours prior to data collection.

10.3. Study Sample

A **non-probability quota sampling** method was used. Quota sampling uses a convenience sampling technique with an added feature, a strategy to ensure the inclusion of subject types that are likely to be underrepresented in the convenience sample. Quota sampling tends to decrease potential biases (Burns and Grove, 1993).

Respondents in this study were eighty (80) consented adult patients whose discharge was within forty-eight hours prior to data collection. Out of a planned sample size of 100 respondents, only 80 (80%) patients responded to the questionnaire. This sample size was considered large enough to represent the views of patients who fitted into the sample criteria at the time of study. Of the 80 patients studied, Gaborone Private Hospital had the most number of respondents, 48 (60.0%) while Princess Marina Hospital only had 32 (40.0%).

Sample selection criteria included adult males and females who were:

- Hospitalised at the time of data collection.
- Due for discharge within a maximum of at least 48hours.
- Either medically insured or not medically insured but paying for their hospitalization or qualifying for care as paying patients but were not charged because the system had no provision for charging such patients as in the case of patients admitted for maternity care in Princess Marina Hospital where such patients are not charged any fees even if they have medical insurance or may even want to pay private fees for their care.

The clinical diagnoses which also defined the **sample quotas** included patients who had had any one of the following conditions / diagnoses: normal delivery, Caesarian Section, Gastroscopy, Open Reduction and Internal Fixation (ORIF) of a fractured femur or Appendicectomy. Outcomes

of care were thus measured from patients who fell within the sample quota and were also within the selection criteria above. The choice of the conditions and/or medical interventions was based on the frequency with which patients were treated for such conditions or the frequency with which patients reported for such interventions in the health care facilities from where data were collected. From the total of 80 respondents from the two health care facilities, the highest number 19 (23.8%) was that of patients who had had surgery for a fractured femur followed by those that had had normal child delivery, 18 (22.5%) and Caesarian Section, 17 (21.3%). Respondents who had an appendicectomy or had come for a gastroscopy accounted for 11 (13.8%) and 15 (18.8%) of the total sample of 80 respectively.

11. METHOD OF STUDY

Combinations of both quantitative and qualitative study methods were used to elicit information. **Cost** was measured **quantitatively** by recording the final bill that the respondent would be paying while **outcomes**, which must be measured against **pre-purchase expectations**, were measured by use of a Likert Scale that addressed the technical as well as functional attributes of the respondent's experiences in hospital. **Outcomes** were also measured **qualitatively** through a semi-**structured interview**.

11.1.1. Primary Data Collection Methods

Primary Data were collected as follows:

11.1.1.1. Cost of Health Care

Quantitative data regarding **cost** of care were collected from regulatory accounting documents held by the relevant hospital facilities or from the Medical Aid billing records of the respondent's relevant Medical Aid. Hospital bills (specific to the medical condition and current period of admission), available both at each hospital's revenue office and at the relevant medical aid facilities were used as sources of data relating to cost of health care.

11.1.1.2. Outcomes, Patient Satisfaction and Quality Care

Interviews were held **with patients** who were in the process of being treated for one of the five medical conditions whose outcomes were under study. Patients were required not to be more than forty eight hours prior to discharge. Where hospital standards of care were available, these were reviewed to complement the data.

Since this was an exploratory study, it was important that authoritative sources of data be used as this information was later used as secondary data. The information had to be as authentic as possible. Information on patient records was original and had not been interpreted by a second party. Information obtained from the interview was considered original and therefore reliable because it represented an official opinion or position of the respondent.

11.2. The Research Instrument

A self-developed **questionnaire**, part of which was consistent with the earlier work of Donabedian (1980) was used to collect survey data. The questionnaire was in three sections. **Section 1** elicited information on demographic data pertaining to: Name of Health Facility, Reason for Hospital Visit, Admission and Discharge Dates, Length of Stay in Hospital (LOS), Medical Insurance and the **Total Final Bill** the patient had to pay.

Section 2 was a Likert Scale, which was an adaptation of Donabedian's hospital services framework. In his framework, Donabedian described from literature and participant hospital management input, eighteen primary service quality sentinels covering the entire principal attributes of hospital services. These were described and classified under five headings to simplify the analysis and comparisons made. This tool elicited information on **outcomes** based on the **expectations** and **perceptions** of the respondents' original expectation of service performance. This way service quality was audited.

Data on **patient satisfaction with outcomes** was obtained by having respondents rank their experiences in five areas: **Nursing Care, Accommodation, Physician Care, Food and**

Overall Health on discharge. Satisfaction with **nursing care** was based on the efficiency or promptness of the nursing staff, their concern or compassion, the adequacy of the explanations they made and their cheerfulness as they provided the care. Satisfaction levels on **accommodation** depended on the cleanliness of the room, level of comfort and adequacy of ventilation of the room. Experience on **physician care** was measured on the efficiency or promptness of care, the care or compassion showed by the physician, and the adequacy of explanations given by the physician. **Food experiences** were measured on the variety of the foods, how attractive and appetizing the food was, whether or not the portions were adequate, the promptness of the service and whether or not food was served at the right temperature. The fifth experience related to **overall health experiences**, which related to total recovery, relief of symptoms and relief of pain.

Based on the disconfirmation paradigm described by Bitner (1990) and Bolton and Drew (1991), quality is defined as the gap between **customers' expectations** and **perceptions (C=P-E)** and a customer will perceive quality positively only when the service provider meets or exceeds his expectations.

Three categories of **expectations** were defined in relation to perceived care as follows. Perceived care could be:

- **Same as** the respondent expected, meaning that the perception of actual performance **fell within** the respondent's expectation.
- **Worse than** expected, meaning that the perception of actual performance **fell below** the respondent's expectation.
- **Better than** expected, meaning that the perception of actual performance **exceeded** the respondent's expectation.

Respondents rated their perceptions of actual experience on a scale whose categories were:

1. Very Poor
2. Poor
3. Average
4. Good
5. Excellent

A respondent could thus experience performance of care that was very poor, poor, average, good or excellent on any of the five categories of health care service experiences, nursing care, accommodation, physician care, food and overall **health experiences.** The "very poor" "poor" "average", "good" and "excellent" categories on the scale were the respondent's perceptions or formed opinions of the experienced service. Thus, respondents in their experiences, could receive very poor nursing care, which may have been the **same as they had expected** or good nursing care which was **better than** the poor or very poor nursing care they had **expected** or just average nursing care which was **worse than they expected.** Accommodation for example, could be **worse than the respondent expected** and yet the overall health after hospitalization could be **better than that the respondent expected.**

For ease of analysis, the categories defining the respondents' perceptions of actual service performance were further grouped to three. Actual performance could thus be:

Section 3 was a **semi-structured interview** schedule, which was used to obtain **qualitative data** on satisfaction and **quality of care perceived, expected and received** by the respondent.

Questions 9, 10, 11.

Question 9 was a closed-ended question eliciting information on whether or not the respondent had previously received care as an inpatient in the health care facility in which they were presently admitted. Robledo (2001) argues that **past experience of the customer**, not only with the service provider but with competitors and companies of other sectors is one of the main **sources of expectations**. Expectations are therefore an individual's thoughts or beliefs of

future performance mainly influenced by personal experience and word of mouth communication.

Question 10 elicited information on whether or not the respondent would return possibly for a repurchase of the service. Reasons for repurchasing or not repurchasing the service were given in **Question 11.** These reasons were further categorised into those that described **satisfaction** or **dissatisfaction** with **cost or quality.**

Questions 12, 13, 14 and 15 were a mixture of open –ended and closed-ended questions that were intended to gain further insight on **outcomes and quality issues**. Questions 12-15 elicited information whether or not the respondent had on any occasion during their present experience complained about the service provided in the health care facility, if they had complained what their complaint was and whether it had been corrected to their satisfaction. It was assumed that subject to the way the complaint was handled it could have an impact on the respondent's decision to make future repurchases.

Questions 16 & 17 elicited information relating to the nature of the service experienced. A description of **satisfiers** (things **most pleased** with) and **dissatisfiers** (things **least pleased** with) were elicited and these were further analysed in terms of cost and quality of outcomes.

Question 18 was a qualitative question requiring the respondent to comment on the **cost of care.** The question was analysed in relation to Question 8 of Section 1 "Total Bill from Admission to Date". Comments were summarised and fell into any of the categories below:

- Cheap
- Too high (Unjustifiable)
- Reasonable
- Value for Money

11.2.1. Reliability and Validity of the Instrument

In evaluating the measurement tool, the researcher used two major criteria: validity and reliability of the tool.

11.2.1.1. Validity

Several different forms of validity can serve as criterion for assessing the psychometric soundness of a scale; face, content, convergent, discriminant and predictive or concurrent validity (Grapentine, 1995). In this study, only face validity was assessed. **Face validity** is a subjective criterion reflecting the extent to which scale items are meaningful and appear to represent the construct being measured was explicitly assessed a priori in this study. Preliminary discussions with health care managers, interviews with medical aid executives and assessment by lecturers resulted in modifications in wording and content of the questionnaires. Final feedback from the research supervisor confirmed that the resulting scales had face validity.

11.2.1.2. Reliability

Reliability is a measure of consistency, that is, the ability of a tool to consistently measure what it purports to measure. The researcher, by personally conducting the research maintained investigator consistency thus ensuring reliability.

11.2.2. Pilot Study

To assess the adequacy of the data collection plan, a trial run of the major study was done on a group of ten patients who were randomly selected from both a managed care and a non-managed care setting. The respondents to the trial run, who were not allowed to participate in the main study, were also questioned by the researcher regarding their reactions to, and overall impressions of the study.

11.2.3. Ethical Considerations

The researcher, who was also the person administering the questionnaire, explained the study purpose and also sought consent from each respondent prior to administering the questionnaire. Respondents were assured of both anonymity and confidentiality of all information they gave. Their file numbers and not their names were recorded on the questionnaire. Respondents were also informed that their participation was voluntary, and that they could discontinue participation at any time without penalty. To further ensure anonymity and confidentiality, data were reported in groups and not by individual response.

Instructions that the consent could be withdrawn at any time without prejudice, affirming the right to refuse to participate was given. Respondents were informed that copies of the study would be made available to their institutions as soon as the researcher had analyzed the findings.

11.2.4. Permission to Carry Out the Study

Permission to carry out this study was granted by the School of Business Leadership (SBL); University of South Africa (UNISA), The Research Committee of the Research Unit in the Office of the President (Botswana), the Research Unit of the Ministry of Health (Botswana), the Chief Executive Officers or Ethics Committees of the different managed and non-managed care facilities from where data were collected and the patients who were part of the sample group.

11.2.5. Data Collection Procedures

Data for this study were collected during the months of July to November 2002. Analysis was done in November. The researcher liaised with ward managers where patients included in the sample were admitted for care. The hospital accounting department was also consulted for the patient's final bill.

11.2.5.1. Study Limitations

Limitations are restrictions in a study that may decrease the generalizability of findings. Limitations may either be theoretical or methodological. In this study, certain methodological limitations were identified.

After determining the setting and type of sample, the researcher sought formal cooperation and support from the personnel that cared for the patients under study. Meeting and developing a rapport with the hospital personnel who were involved in the study was essential. Burns and Grove (1993) argue that staff nurses may be concerned about how the researcher views them and their nursing care, often believing that their nursing practice is being judged which increases anxiety and can interfere with good working relationships. The use of a questionnaire itself is a limitation in that it could lead the researcher to "miss the forest while observing the trees". Added to this is the fact that the credibility of the data is especially dependent upon the honesty of those providing the data. Such components of the study that deviate or cause a deviation from true measure lead to distorted findings.

11.3. Overview of Statistical Procedures

Data were analyzed by use of both **descriptive and inferential statistics**. A medical statistics computer program called Epi Info Version 6.4 was employed for both descriptive and inferential statistical analysis of data. Descriptive statistics such as **frequencies, percentages** and other statistics to determine measures of central tendency in the form of the mean, mode, and the median were used. Variability was measured by use of the range and the standard deviation.

Cross tabulations and the **chi square** test were used to measure significant **differences among the different variables**. The **chi square** statistic was chosen as the appropriate statistic to use because the data obtained were **non-parametric** and the researcher wanted to establish whether there was any **association between the variables** or not. The chi square statistic is thus applied to contingency tables to **test the difference of different proportions**. Talbot (1995) asserts, "the chi square test is used to test differences between observed and

expected values. It is used to test the hypothesis that the observed frequencies are not different from the frequencies to be expected if no association existed between the variables (p.342)."

CHAPTER FIVE

12. RESEARCH FINDINGS

The Instrument: Section 1

Section 1 of the instrument addressed the socio-demographic data of the respondents. This section was analysed to show the distribution of the respondents by the following variables: name of health care facility, reason for hospital visit, length of stay in hospital (LOS), medical insurance and total final bill. The following tables show summaries of the demographic data.

Table 1: Percentage Distribution of Respondents by Health Care Facility Visited

Health Care Facility	Freq.	%
Gaborone Private Hospital (GPH)	48	60.0
Princess Marina Hospital (PMH)	32	40.0
TOTAL	80	100.0

Of the 80 patients studied, Gaborone Private Hospital (GPH) had the highest number of respondents 48 (60.0%) while Princess Marina Hospital (PMH) only had 32 (40.0%). GPH, with a bed capacity of 110 is considered the largest managed care facility in Botswana that admits paying clientele who either have medical insurance or are paying their hospital bills privately. PMH on the other hand is a predominantly non-managed care government facility with a limited capacity of 20 beds reserved for paying patients who are normally admitted into their Private Ward. The Private Ward at Princess Marina admits patients with any medical condition except those requiring maternity care. The hospital has no provision for private or paying maternity cases. Such patients, even when they have medical insurance are admitted in the different maternity care units together with those patients that have no medical insurance. In this study,

the researcher only interviewed maternity patients who were on medical insurance or expressed a willingness to pay for such services.

Table 2: Overall Distribution of Respondents By Reason for Hospital Visit

Reason for Hospital Visit	Freq.	%
Appendicectomy	11	13.8
Caesarian Section	17	21.3
Open Reduction & Internal Fixation(ORIF) of Fractured (#) Femur	19	23.8
Gastroscopy	15	18.8
Normal Child Delivery	18	22.5
TOTAL	80	100.0

While the researcher had planned to interview at least 10 patients from each of the five quotas represented in the "reason for hospital visit" the results were as follows: patients with #Femur who had also had ORIF accounted for 19 (23.8%) of the respondents while maternity cases which included normal child delivery and Caesarian Section accounted for 18 (22.5%) and 17 (21.3%) respectively. Patients admitted for Appendicectomy and Gastroscopy accounted for only 11 (13.8%) and 15 (18.8%) respectively.

Table 3: Frequency Distribution of Respondents by Length of Stay in Hospital

Length of Stay (LOS) in Hospital (Days)	Freq.	%
0-4	41	51.3%
5 – 9	28	35.0%
25-29	8	10.0%
30-34	3	3.8%
TOTAL	80	100.0

At least 41 (51.3%) of the 80 respondents from the two health care facilities had a Length Of Stay (LOS) of a period of four days or less while 28 (35.0%) had been admitted over a period of 5 to 9 days. There were no respondents with a Length of Stay ranging from 10 -24 days, which explains the absence of the related class intervals, however 8 (10.0%) of the respondents stayed and were discharged from hospital after a period of 25-29 days and 3 (3.8%) after 30-34 days. The longest staying respondents were patients who were from Princess Marina Hospital which is a non-managed health care facility.

1. **Table 4: Distribution of Respondents by Length of Stay (LOS) and by Reason for Hospital Visit**

	LOS (Days)								
	0-4		5-9		25-29		30-34		TOTAL
Reason for Hospital Visit	N	%	N	%	N	%	N	%	
Normal Child Delivery	18	100.0%	0	0.0%	0	0.0%	0	0.0%	
Gastroscopy	15	100.0%	0	0.0%	0	0.0%	0	0.0%	
Appendicectomy	8	72.7%	3	27.3%	0	0.0%	0	0.0%	
#Femur	0	0.0%	8	42.1%	8	42.1%	3	15.8%	
Caesarian Section.	0	0.0%	17	100.0%	0	0.0%	0	0.0%	
TOTAL	41		28		8		3		80

Chi Square= 102.59

Df = 12

p value = 0.0000000

At least 41 respondents had a Length of Stay (LOS) of over a period of four days or less. All patients that were seeking care for normal child delivery, gastroscopy and at least 8 (72.7%) of those that had come to have their appendix removed fell in this category. All these health interventions are relatively short and respondents from both health care facilities reported to have been told that their care would require, on average, this Length of Stay in the health care facility they were in. The Length of Stay for patients who had come in for the surgical procedure to repair a fractured femur by open reduction and internal fixation (ORIF) stayed a lot longer especially in the non-managed health care facility. In the managed care facility, these patients stay over a period of seven days or so. Most of those who fell in this category and were from the managed care facility fell in the 5-9 days Length Of Stay (LOS) category. From the non-managed care facility, patients with fractured femur stayed a lot longer, sometimes getting discharged after three weeks to a month even if the actual operation normally has a Length Of Stay (LOS) of at least 7-14 days in the non-managed care facility. However since it was not part of this study to investigate reasons for the differences in stay, the researcher did not pursue this variable any further. Caesarian Sections normally with a reported Length Of Stay (LOS) of about 5-7 days counted for most respondents whose Length Of Stay fell in the 5-9 days category. The extended LOS may be necessary where the patient needs supervised wound care or where the new born baby still requires further hospitalization.

The two variables have a strong correlation with a calculated chi-square of 102.59 and a ***p value of 0.0000*** at 12 Degrees of Freedom. This means that there is a strong significant relationship between the length of time a patient will spend in hospital and (LOS) and their reason for hospitalization. Normal child delivery, gastroscopy and appendicetomy are considered short stay procedures that will keep a patient in hospital for 4 days or less while repair of fractured femur and child delivery by Caesarian Section are considered longer stay procedures as they require more complex medical interventions.

Table 5: Distribution of Respondents by Length of Stay (LOS) and Total Final Bill (Cost)

	LENGTH OF STAY - LOS (Days)								
	0-4		5 - 9		25 - 29		30 - 34		
Total Final Bill (Pula)	N	%	N	%	N	%	N	%	TOTAL
0 - 2999	17	45.9%	9	24.3%	8	21.6%	3	8.1%	37
3000 - 5999	7	100.0%	0	0.0%	0	0.0%	0	0.0%	7
6000 – 8999	9	100.0%	0	0.0%	0	0.0%	0	0.0%	9
12000 – 14999	1	14.3%	6	85.7%	0	0.0%	0	0.0%	7
15000 – 17999	7	58.3%	5	41.7%	0	0.0%	0	0.0%	12
24000 – 26999	0	0.0%	4	0.0%	0	0.0%	0	0.0%	4
27000 – 29999	0	0.0%	3	100.0%	0	0.0%	0	0.0%	3
30000 - 32999	0	0.0%	1	100.0%	0	0.0%	0	0.0%	1
	41		28		8		3		80

A total of 37 respondents paid up to P2999.00 for the care they received in any of the two health care facilities where patients were under study. At least 17 (45.9%) fell in the 0-4 days Length Of Stay category, 9 (24.3%) in the 5-9 LOS category and 8 (21.6%) in the 25-29 days category of LOS. The results would seem to suggest that a high percentage of respondents in this category were patients that were receiving their treatment from the non managed care health care facility, Princess Marina. Patients who are admitted in the non-managed care health care facility pay at least an overall standard rate of P60.00 per day for their health care experiences regardless of whether they have a medical insurance or not. Charges are therefore based on length of stay as opposed to charges in a managed care facility where charges are on a "fee for service" basis. Patients only pay a core payment of 10.00% of the bill if they are covered by any of the Botswana Medical Aid Schemes i.e. BOMAID, BPOMAS and Pula Medical Aid. A patient who

remains in the hospital in Princess Marina, the non managed care facility is charged a Total Final Bill of P1800.00 of which the patient pays a core payment of P180.00 only. On the other hand, in the managed care facility, a patient who is booked for a gastroscopy, which is a day's procedure is charged P500.00 as 20.0% core payment and the Total Final Bill that they sign for is, on average P3 000.00 for the gastroscopy. Thus, while in the managed care facility, a patient not on a medical aid and who is therefore "private" will be charged P3 000.00 to P4 000.00 after a day's gastroscopy health care experiences, in the non-managed care facility the same patient will have their gastroscopy and pay only P60.00 for the total health care experience.

Patients admitted for Appendicectomy, which has an average Length Of Stay (LOS) of 3-5 days in hospital would be expected to pay a core payment of P2 500.00 of the P15 000.00 or so Total Final Bill that will be handed to their Medical Aid. Patients who come in for a normal child delivery with an LOS of 2-3 days make a core payment of at least P1241.00 on admission at the managed care facility and the Total Final Bill comes to P6 000.00 on average while those that deliver by Caesarian Section will be required to pay a 20.0% core payment of P1 300.00 and sign for a Total Final Bill of P13 000.00–P16 000.00. Respondents who had no medical aid cover were charged P12 000.00 as deposit on admission prior to a Caesarian Section Delivery. An interesting observation however was that in Princess Marina Hospital, which is a non-managed care facility, maternity care is not charged for. Respondents who were admitted for either Normal Child Delivery or Caesarian Section and had medical aid insurance did not have to pay for their maternity health care experiences. Their LOS was similar to the one for the managed care facility. All respondents who were at the Gaborone Private Hospital and had open reduction with internal fixation paid between P24 000.00 and P30 000.00 for the 5-9 days stay in the hospital. In the non managed care facility, Princess Marina respondents stayed longer but paid less for their stay and their health care experiences.

Cross tabulating these variables by health care facility resulted in an inflation of figures with resultant false statistical results. Thus the analysis was based on the raw data collected.

The Instrument: Section 2

Based on the disconfirmation paradigm, quality is defined as the gap between **customers' expectations** and **perceptions (C=P-E),** and a customer will perceive quality positively only when the service provider meets or exceeds his expectations (Bitner, 1990; Bolton & Drew, 1991a).

Section 2 of the tool elicited information on **outcomes** based on the **expectations** and **perceptions** of the respondents' original expectation of service performance. This way service quality was audited. Perceived **outcomes** on five selected **service experiences** (nursing care, accommodation, physician care, food experiences and overall health experiences) were described in relation to the respondent's **expectations** of service delivery in each of the five service experiences.

The respondent's actual experiences of the service rendered could be categorised as follows:

- **Same as expected,** where perceptions of actual performance **fell within** expectation.
- **Worse than expected,** where perceptions of actual performance **fall below** expectation.
- **Better than expected** where perceptions of actual performance **exceed** customer's expectation.

Respondents rated their **perceptions of actual service performance** on a scale categorised as:

1. Very Poor
2. Poor
3. Average
4. Good
5. Excellent

The following tables describe the findings in this section.

Table 6: Overall Distribution of Perceptions of Performance (Outcomes) by Health Care Experiences

Health Care Experiences	Perceptions of Performance (Outcomes)										
	Very Poor 1		Poor 2		Average 3		Good 4		Excellent 5		TOTAL
	N	%	N	%	N	%	N	%	N	%	
Nursing Care	7	8.8%	4	5.0%	15	18.8%	**41**	51.3%	13	16.3%	80
Accommodation	5	6.3%	14	17.5%	16	20.0%	**35**	43.8%	10	12.5%	80
Physician Care	0	0.0%	3	3.8%	9	11.3%	**42**	52.5%	26	32.5%	80
Food Experiences	14	17.9%	**33**	42.3%	16	20.5%	13	16.7%	2	2.6%	80
Overall Health Experiences	2	2.5%	1	1.3%	15	18.8%	52	65.0%	10	12.5%	80
TOTAL											80

The findings above are a reflection of the perceptions of outcomes described by the respondents. Perceptions of outcomes described as "Very Poor", "Poor", "Average", "Good" and "Excellent" reflected the quality of the different health care experiences as related by the respondents. For ease of reporting these quality descriptions, the five categories of the Likert Scale were further grouped as follows:

Poor – Very Poor = Poor Quality

Average Quality

Good – Excellent = Good Quality.

From the above table, at least 62 (77.5%) of the 80 respondents perceived their overall health experiences to have been good-excellent, meaning that their overall health experiences were of good quality. Physician and Nursing Care experiences were singularly rated as good – excellent by 68 (85.0%) and 54 (67.6%) of the respondents meaning that the outcomes from these experiences were considered of good quality. However, 47 (60.2%) of the respondents recorded that actual outcomes from food experiences were perceived to have been poor – very poor,

meaning that the food served was perceived as being of poor quality. Accommodation was rated good-excellent by 45 (56.3%) of the respondents and yet 16 (20.0%) perceived its quality as being only average.

Table 7: Overall Distribution of Respondents' Perceptions of Performance (Outcomes) and Health Care Experiences by Health Care Facility.

PRINCESS MARINA HOSPITAL (PMH) – NON-MANAGED CARE											
Health Care Experiences	**Perceptions of Performance (Outcomes)**										
	Very Poor 1		Poor 2		Average 3		Good 4		Excellent 5		TOTAL
	N	%	N	%	N	%	N	%	N	%	
Nursing Care	5	15.6%	2	6.3%	9	28.1%	16	**50.0%**	0	0.0%	32
Accommodation	2	6.3%	9	40.6%	8	25.0%	13	40.6%	0	0.0%	32
Physician Care	0	0.0%	1	3.1%	6	18.8%	21	**65.6%**	4	12.5%	32
Food Experiences	**9**	**28.1%**	17	**53.1%**	4	12.5%	2	6.3%	0	0.0%	32
Overall Health Experiences	0	0.0%	0	0.0%	7	21.9%	23	**71.9%**	2	6.3%	32
GABORONE PRIVATE HOSPITAL (GPH) – MANAGED CARE											
Nursing Care	2	4.2%	2	4.2%	6	12.5%	25	52.1%	13	27.1%	48
Accommodation	3	6.3%	5	10.4%	8	16.7%	22	45.8%	10	20.8%	48
Physician Care	0	0.0%	2	4.2%	3	6.3%	21	**43.75%**	22	45.8%	48
Food Experiences	5	10.9%	16	**34.8%**	12	26.1%	11	23.9%	2	4.3%	48
Overall Health Experiences	2	4.2%	1	2.1%	8	16.7%	29	**60.4%**	8	16.7%	48

In this study, 43 (89.6%) out of a total of 48 respondents from Gaborone Private Hospital, a managed care facility, rated their perceived outcomes from experiences with physicians "Good – Excellent" while only 25 (78.1%) from Princess Marina Hospital which was a non-managed care facility, did. On overall health experiences, 37 (77.1%) of the 48 respondents from Gaborone Private Hospital rated the care to have been "Good – Excellent" therefore of good quality while Princess Marina's rating in the same category was (78.2%). On nursing care experiences, the pattern was slightly different with only 16 (50.0%) of the respondents at Princess Marina Hospital rating their nursing care experiences as "Good – Excellent" compared to 38 (79.2%) at the Gaborone Private Hospital. A ***p-value*** of **0.0066** for the nursing care experiences shows

that there is a significant relationship between patient's perceptions of the quality of the nursing care experiences and the health care facility that provides this care meaning that the outcomes of nursing care will differ subject to which of the two facilities one seeks care from. Other health care experiences that showed significant differences were with accommodation (***p = 0.0277***), physician care (***p=0.0115)*** and food experiences (***p=0.0238***). Perceptions of outcomes of food experiences in this study showed that whereas food experiences were rated "poor" to "very poor" by most respondents, a ***Chi Square =11.25*** with ***Df=4*** and ***p=0.0238*** meant that more respondents (81.2%) in Princess Marina Hospital had experienced poor quality of food compared to Gaborone Private Hospital where only 45.7% had the same perceptions. This means then that there is a relationship between quality of food served and the facility that serves this food. It would appear that in this study, that more people perceived food quality to be poor at Princess Marina Hospital than at the Gaborone Private Hospital.

An interesting finding was that there was no significant relationship between the quality of overall health care experiences and where one received care in the two facilities in this study (***p=0.3629)***. This meant that in terms of overall health care experiences, good, poor or average quality of overall health care outcomes is not dependent on the health facility one chooses to seek help from. To this end then respondents in each of the two health care facilities experienced a quality of overall health care outcomes that were no better or worse than each other.

Table 8: Frequency Distribution of Respondents' Expectations of Outcomes of Care by Health Care Experiences.

Health Care Experiences	Patient Expectations of Outcomes of Care					
	Same As Expected		Worse than Expected		Better than Expected	
	N	%	N	%	N	%
Nursing Care	38	47.5%	22	27.5%	20	25.0%
Accommodation	25	31.3%	26	32.5%	29	36.3%
Physician Care	48	**60.0%**	12	15.0%	20	25.0%
Food Experiences	25	32.1%	44	**56.4%**	9	11.5%
Overall Health Experiences	29	36.3%	9	11.3%	42	**52.5%**
TOTAL						

Of the 80 respondents at least 42 (52.5%) reported positive disconfirmation (confirmation) with the expected outcomes of their overall health care experiences. This means that they were satisfied with these outcomes as they exceeded their expectations. However, 9 (11.3%) had negative disconfirmation meaning that the outcomes of overall health experiences were worse than had been expected. This means that these 9 respondents were dissatisfied with the perceived outcomes. Food experiences were also rated with 44 (56.4%) negative disconfirmation meaning that the perceived outcomes were worse than expected. Only 9 (11.5%) of the respondents were satisfied with outcomes of food experiences from a total of 80. Physician and nursing care experiences accounting for 48 (60.0%) and 38 (47.5%) ratings respectively were perceived to have had outcomes that were "same as expected".

Table 9: Frequency Distribution of Respondents' Expectations of Outcomes of Care by Health Care Facility.

PRINCESS MARINA HOSPITAL (PMH) = Non Managed Care Facility						
Health Care Experiences	Patient Expectations of Outcomes of Care					
	Same as Expected		Worse than Expected		Better than Expected	
	N	%	N	%	N	%
Nursing Care	6		13		13	
Accommodation	11		12		9	
Physician Care	18		5		9	
Food Experiences	10		22		0	
Overall Health Experiences	14		2		16	
GABORONE PRIVATE HOSPITAL (GPH) = Managed Care Facility						
Nursing Care	32		9		7	
Accommodation	14		14		20	
Physician Care	30		7		11	
Food Experiences	15		22		9	
Overall Health Experiences	15		7		26	

In a comparison of the respondents' expectations of outcome by health care facility, at least 26 respondents from Gaborone Private Hospital perceived their overall health care experiences as "better than expected" compared to 16 from Princess Marina Hospital. Gaborone Private Hospital also rated higher with 20 respondents satisfied with their accommodation while in Princess Marina only 9 were satisfied. However, more respondents (13) rated the nursing care there **satisfying** while only 7 perceived the same in Gaborone Private Hospital. Expectations of outcomes of nursing experiences, food experiences and accommodation were rated by 9, 22 and 14 respondents as **worse than expected,** therefore **dissatisfying** while scores of 13, 5 and 12 were true of Princess Marina Hospital. A chi square of 19.4 with Df of 2 and a ***p value of 0.0000*** in nursing care experiences shows a high relationship between expectations of outcomes of nursing care experiences and the health care facility that these outcomes are expected from.

On the contrary, insignificant relationships existed in patient expectations of the quality of accommodation, food, physician care and overall health care experiences as shown by the ***p values*** of ***0.4474, 0.0769, 0.6548*** and ***0.05145*** respectively. The respondents' expectations regarding these health care experiences were not dependent on the health care facility that the respondent was admitted in.

Table 10: Frequency Distribution of Respondents' Expectations of Outcomes of Care by those who would Comeback / Not Comeback

Coming Back			
Health Care Experiences	**Patient Expectations of Outcomes of Care**		
	Same as Expected	**Worse than Expected**	**Better than Expected**
	N	N	N
Nursing Care	34	8	16
Accommodation	21	15	22
Physician Care	35	6	17
Food Experiences	22	26	9
Overall Health Experiences	19	5	34
Not Coming Back			
Nursing Care	4	14	4
Accommodation	4	11	7
Physician Care	13	6	3
Food Experiences	3	18	0
Overall Health Experiences	10	4	8

This table shows no relationship between expectations of outcomes in accommodation experiences, physician care and overall health care experiences as evidenced by ***p values*** of **0.0962, 0.0993 and 0.1728** respectively. This shows that these variables **would not determine** a patients' decision to come back or not come back to the facility for treatment. However, nursing care and food experiences seem to impact on decisions related to the patient's coming back or not coming back to the facility as evidenced by ***p = 0.00003.*** Similarly, 18 of

the 44 respondents whose food experiences were "worse than expected" would not be coming back.

An interesting finding however is that not all respondents whose health care experiences were "better than expected" and therefore satisfying to the respondent would be coming back possibly meaning that **satisfaction is not loyalty.** At least 8 of the 44 whose overall health care experiences exceeded the respondents' expectations would not be coming back for more.

Table 11: Frequency Distribution of Respondents' Expectation of Care by Outcomes of Health Care Experiences.

SAME AS EXPECTED						
Health Care Experiences	**Perceptions of Performance (Outcomes)**					
	Very Poor 1	Poor 2	Average 3	Good 4	Excellent 5	TOTAL
	N	N	N	N	N	
Nursing Care	0	0	3	22	13	38
Accommodation	0	2	7	13	3	25
Physician Care	0	0	3	27	18	48
Food Experiences	3	4	7	10	0	24
Overall Health Experiences	2	1	2	24	2	29
BETTER THAN EXPECTED						
Nursing Care	0	0	1	19	0	20
Accommodation	0	0	2	20	7	29
Physician Care	0	0	0	13	7	20
Food Experiences	0	0	2	5	2	9
Overall Health Experiences	0	0	7	27	8	42
WORSE THAN EXPECTED						
Nursing Care	7	4	10	1	0	22
Accommodation	0	11	8	1	0	26
Physician Care		4	6	2	0	12
Food Experiences	10	28	3	3	0	44
Overall Health Experiences	2	2	4	1	0	9

In the majority of health care experiences most respondents perceived the care they had received to have been either the same as they had expected which was "good – excellent" or "better than expected" which was also "good to excellent". Perceived "good –excellent" nursing care came from 35 out of 38 respondents and 19 out of 20 who perceived the outcomes to have been "better than expected" and yet still rated it "good" compared well with the 11 that

perceived nursing care to have been "poor – very poor" or of average quality. Perceptions of outcomes of food experiences were mostly rated as "worse than expected". Expectations from food experiences and their resultant outcomes seemed to lie a lot more on the "poor – very poor" category.

Another finding which causes concern is that of 11 rankings of nursing care experiences that were perceived to have been "poor to very poor". A few of the respondents' expectations on the five health care experiences were "worse than expected" even if they fell in the "average" category on the Likert Scale.

The Instrument: Section 3

Section 3 of the data collection was a semi-structured interview which elicited information on the respondent's views and experiences regarding aspects of customer satisfaction, quality of care and cost of care. Data were analysed on a question by question basis. Below are the summaries of the findings in this section.

Question 9: Have you ever received care as an in-patient at this hospital?

Table 12: Percentage Distribution of Respondents that had Received or Not Received Care in the Health Care Facility Before.

	Freq.	%	Cum
Received Care	57	71.3%	71.3%
Not Received Care	23	28.8%	100.0%
TOTAL	80	100.0	

At least 57 (71%) of the total sample of 80 had received care in the health care facility that they were in before and were therefore repurchasing a service from a previous supplier. The other 23 (28.8%) was experiencing service provision from the health care facility for the first time.

Question 10: Would you or would you not come back for care if you needed it?

Table 13: Percentage Distribution of Respondents that Would or Would Not Come Back by Health Care Facility.

	Managed Care Facility **GPH**		Non-Managed Care Facility **Princess Marina Hosp.**		Total
Coming Back/Not Coming Back	Freq.	%	Freq.	%	
Yes, Coming Back	36	61.0%	23	39.0%	59
No, Not Coming Back	12	57.1%	9	42.9%	21
TOTAL	48 60.0%		32 40.0%		80

While 59 (73.8%) responded that they would come back for a repurchase of the service at the health care facility, 21 (26.3%) would not be coming back for a repurchase of the service. An analysis of how many respondents would be coming back to repurchase the service from each

facility resulted in 36 (61.0%) of the total of 48 respondents at the managed care facility responding that they would be coming back while 12 (57.1%) would not be coming back and thus would be purchasing their service elsewhere. From the non-managed health care facility, 23 (39.0%) of the 32 respondents said they would be coming back to repurchase the service while only 9 (42.9%) would not be making a repurchase and would thus be going elsewhere to purchase the service. Reasons for coming or not coming back are given in the tale below.

Question 11: What reasons would you give for coming back or not coming back?

Table 14: Distribution of Reasons given for coming back or not coming back to the Health Care Facility.

Reasons	N = +ve	N=-ve
Better Care	9	
Flexible Visiting Hours	1	
Happy with Nursing and Doctor Care	38	
Reasonable Costs	2	
Value for Money	2	
Convenience		2
High Costs		3
Lack of alternatives		**7**
Low quality of service		**11**
Poor Administration		2
Poor Care		3
TOTAL	52	28

N= +ve = Reasons for Coming Back
N= -ve = Reasons for not Coming Back

The most repeatedly mentioned reasons for **coming back** included appreciation of the respondent for better care which was mentioned by 9 of the respondents, with the highest number, 38 mentioning "happiness (satisfaction) with nursing and physician care" as their reason for making repurchases. A few of the respondents mentioned reasons like value for money, reasonable costs, flexibility with visiting hours and **convenience** in terms of distance as reasons for which they would come back to seek care in the health care facility. An interesting reason mentioned by at least 7 respondents was that of **"lack of alternatives"** which meant that the

respondents were not repurchasing services because they wanted to but because they had no other reasonable alternative in Botswana that could offer them a similar yet more satisfying service. If there was an alternative, these customers would not be making purchases at these facilities.

Reasons given for **not coming back** included such reasons as respondents not happy with "low quality service" (11), "poor care" (3) and "high costs" which was mentioned by only 3 of the respondents.

Question 12: While you have been in hospital have you had an occasion to complain about any aspect of the service provided?

Table 15: Percentage Distribution of Respondents that Complained or did not Complain about any aspect of service provided.

Complained / Did Not Complain	Freq.	%	Cum
Complained	17	21.3%	21.3%
Did Not Complain	63	78.8%	100.0%
TOTAL	80	100.0	

Only 17 (21.3%) of the sample of 80 had complained about aspects of the service they were receiving while 63 (78.8%) had not verbalised any complaints.

Question 13: To whom was the complaint made?

Table 16: Percentage Distribution of Persons to whom complaint was made.

Person to whom complaint was made	Freq.	%	Cum
Nurses	15	93.8%	93.8%
Physician	2	6.3%	100.0%
TOTAL	17	100.0	

Almost all, 15 (93.8%) of the respondents' complaints were communicated to nurses while only 2 (6.3%) of the respondents had communicated their complaints to a doctor. Patients have more contact with nurses than they have with their doctors and normally establish a more psychosocial relationship with the nurses. Thus nurses are often referred to as patient advocates.

Question 14: Briefly describe what the complaint was about.

Table 17: Summary of what the complaint was about.

Summary Description of Complaint	Freq.	%
Poor Condition of Utilities	7	43.8%
Nurses Slow Response to Calls	10	56.3%
TOTAL	17	100.0

Two major complaints were raised by the 17 respondents who had complained from both health care facilities. At least 10 (56.3%) respondents complained about nurses being slow to respond to calls from patients while 7 (43.8%) complained about poor condition of utilities stating things like bedside bells not working and making it difficult to communicate with the nurses especially if patients are bed ridden, non availability of hot water in the bathrooms, air conditioners that do not work and TV sets that can only be manipulated by nurses since their remote controls could not be found.

Respondents complained that most times nurses were too busy to attend to patients. They described situations where patients would request for bed pans so that they could relieve themselves while nurses would take their time to offer them what the respondents described as the most basic services. Some described situations where patients would scream in pain without any nurse coming to their help adding that "it just takes too long to get a pain killer".

Question 15: Was the problem corrected to your satisfaction?

Table 18: Summary Data on whether or not problem was corrected to satisfaction.

How Problem was Corrected	Freq.	%
To Satisfaction	3	17.6%
Not to Satisfaction	14	82.4%
TOTAL	17	100.0%

Only 3(17.6%) of the 17 respondents that had complained affirmed that their complaints had been corrected to their satisfaction. The rest, 14 (82.4%) had had complaints that were not corrected to satisfaction. Problems that are not solved connote negativism and become a source of dissatisfaction which may affect the build up of any further relationship with the client. It is not patient advocacy to ignore or not attend to a patient's problems or source of dissatisfaction.

Question 16: Briefly describe what aspect of your care you have been **most pleased** with.

Table 19: Percentage Distribution of Responses on aspects of care most pleased with by Health Care Facility.

	Managed Care Facility **Gaborone Private Hospital**		Non-Managed Care Facility **Princess Marina Hosp.**		Total
Aspects of Care	Freq.	%	Freq.	%	
Cleanliness	2	100.0%	0	0.0%	2
Enthusiasm of Nurses	13	86.7%	2	13.3%	15
Good Nursing Care	17	70.8%	7	29.2%	24
Good Physician Care	12	46.2%	14	53.8%	26
Nothing	2	18.2%	9	81.8%	11
TOTAL	48 60.0%		32 40.0%		80

Chi Square = 16.87

Degrees of Freedom = 4

p value = 0.00204640

Between the two health care facilities, good physician care and good nursing care ranked highest (64.1%) as aspects of care that the 80 respondents had been most pleased with. Other positive responses included respondents being pleased with the enthusiasm shown by the nurses 15 (19.2%), and being pleased with the cleanliness of their immediate environment in the hospital. However an interesting finding was that 11 (14.1%) of the respondents could not identify anything that had pleased them. For them, there was **nothing** in any aspect of their care that was worth mentioning as most pleasing. This shows apathy and has connotations of apathy from the respondents. The highest ranking in this positive-negative expression was mostly recorded from respondents in Princess Marina Hospital.

Of the 24 respondents who mentioned that they were most pleased with "good nursing care", 17 (70.8%) were from the managed care facility while only 7(29.2%) were from the non-managed care facility, Princess Marina Hospital. However 14 (53.8%) respondents from the non-managed care facility, expressed pleasure with the "good physician care" they were receiving as opposed

to 12 (46.2%) who expressed the same pleasure from the managed care health facility, Gaborone Private Hospital.

These findings seem to tally with the results on respondents' expectations of health care experiences by outcomes where respondents recorded most nursing care experiences under the category "Good – Excellent" under both the "same as expected" and "better than expected categories". However, respondents from GPH seem to have contributed more to the positive responses that were most pleasing in the facility. The ***p value*** of ***0.0020*** is evidence of a strong relationship between aspects of care that please patients most and the health care facility they seek care from.

Question 17: Briefly describe what aspect of your care you have been **least pleased** with.

Table 20: Summary Data on aspects of Care Respondents were <u>least</u> pleased with.

	Managed Care Facility **GPH**		Non-Managed Care Facility **Princess Marina Hosp.**		Total
Aspects of Care	Freq.	%	Freq.	%	
Poorly maintained Utilities	1	100.0%	0	0.0%	1
Cleanliness	2	33.3%	4	66.7%	6
Food Not Well Prepared	10	47.6%	11	52.4%	21
Nothing	18	85.7%	3	14.3%	21
Nurses Not Always Helpful	4	28.6%	10	71.4%	14
Slow Response to Calls by Nurses	12	75.0%	4	25.0%	16
TOTAL	47 59.5%		32 40.5%		79

Chi Square = 16.76

Degrees of Freedom = 5

p value ≐ 0.00498660

Respondents were least pleased with a variety of things related to certain aspects of their care. From both the managed care and non-managed care facilities, nurses were described as "not

always helpful" and "responding to calls slowly" or taking time to respond to calls. Gaborone Private Hospital had 16 respondents complain nurses were "not always helpful" and "not responding to calls in time" while Princess Marina had 14 complaints, which was nearly half the respondents. Descriptions of nurses "disappearing" and never coming back when asked for help, ignoring patients asking for pain relief, failing to articulate patient requirements and thus not communicating the right things to the doctor were some of the verbalised complaints about nurses. Non of the respondents raised complaints about doctors and some even commented from both facilities that they were prepared to stay as they were happy with the physician care. Food preparation was also a major complaint from both facilities. This finding is consistent with the findings described under outcomes of food experiences as detailed on **Tables 11 – 12** where food experiences were rated "poor – very poor" or worse than expected, that is, of poor quality. A ***p*** value of ***0.0049*** shows a high relationship between aspects of care least pleasing and the health care facility one is in. It would seem, more negative comments on aspects of care least pleased with are attributable to respondents from Princess Marina Hospital.

Question 18: What is your comment about the cost of your care?

Table 21: Percentage Distribution of Comments about Cost of Care by Health Care Facility.

	Managed Care Facility GPH		Non-Managed Care Facility Princess Marina Hosp.		Total
Comments	Freq.	%	Freq.	%	
Cheap	1	5.0%	19	95.0%	20
Reasonable	7	38.9%	11	61.1%	18
Too High – Unjustifiable	25	92.6%	2	7.4%	27
Value for Money	15	100.0%	0	0.0%	15
TOTAL	48 60.0%		32 40.0%		80

Chi Square = 50.50

Df = 3
p value = 0.00000000

Four themes of comments about cost of care were drawn. Positive comments included statements that indicated that the cost of care was reasonable or that they had received value for the money they had paid. Twenty–seven (27) respondents commented that the costs were too high and not justified for the care or outcomes received. Of these 25 were receiving care from the managed care facility, Gaborone Private Hospital while only 2 were from the non-managed care facility, Princess Marina Hospital. However, still from the managed care facility, 15 respondents described their cost of care as "value for money" because they were happy with their overall health care even though from the earlier results in this study there was no significant relationship between the quality of overall health experiences and the hospital in which one was a patient. None of the respondents in the non managed care facility described what they received in relation to what they paid as "value for money" even though earlier results established that the quality of care from the two facilities was seemingly the same.

Ninety-five percent (95.0%) of the comments that care was "cheap" were made by the respondents in Princess Marina Hospital and yet none of these respondents could describe this as "value for money" as the 15 respondents in Gaborone Private Hospital did. A ***p value*** of ***0.0000*** denotes a very strong correlation between comment made on cost of care and where the

respondent is receiving that care. Care is deemed reasonable and cheap in non - managed care facilities where patients are charged by Length Of Stay compared to charges in a managed care facility where patients pay a fee for service meaning that each aspect of service no matter how small has a bill raised against it. In such a situation then cost will vary with both type of care and Length Of Stay whereas in a non-managed care facility such as Princess Marina, charges are standard and are made on a "per bed-night" basis. At P60.00 per bed night, it makes sense then for a patient covered by medical aid who will only make a core payment of P6.00 per bed night to consider care "cheap" or "reasonable".

Question 19 (Not on Questionnaire) If cost of care is that cheap or that high, does it mean that it would determine the repurchasing of the services or not?

Table 22: Percentage Distribution of respondents who would come back or not come back by comments made on cost of health care.

	Comeback		Not Comeback		Total
Comments	Freq.	%	Freq.	%	
Cheap	16	80.0%	4	20.0%	20
Reasonable	14	77.8%	4	22.2%	18
Too High – Unjustifiable	15	55.6%	12	44.4%	27
Value for Money	14	93.3%	1	6.7%	15
TOTAL	59		21		80

Chi Square = 8.14

Df = 3

p value = 0.04315147

Between the 38 respondents who said cost of care was either cheap or reasonable, at least 8 would not be coming back to the same facility where this comment was made. Out of 15 respondents who said they had received "value for money" at the managed care facility whose costs were also described as "too high – Unjustifiable" 14 would be coming to make repurchases while 13 of the 25 from the same facility who said they the costs were "too high- unjustifiable"

would still come back for more care. Nine (9) respondents whose comments on cost were that it was "cheap", "reasonable" or "value for money" would not be coming back to continue to enjoy these benefits. Whereas a Chi square of 8.14, Df 3 and a ***p value of 0.0431*** shows a correlation between cost and the decision to repurchase health care services from these two facilities, the same results seem to indicate that it is not just the cost factor that is the determinant of such decisions otherwise those who see the cost as cheap or reasonable would come. This finding seems to be consistent with earlier results where patients gave reasons for coming back to the facility as "lack of alternatives" or "convenience".

CHAPTER 6

13. DISCUSSION AND ANALYSIS OF FINDINGS

Data were analysed and discussed on the basis of both the objectives of the study and the research questions asked.

Objective 1: Determine the **cost of care** in selected managed and non managed health care facilities for outcomes of care from selected medical conditions or procedures.

Research Question 1: What is the **cost of selected patient outcomes** from selected managed and non-managed care health care facilities in Botswana?

The health care system has been compared to an over inflated balloon that simply bulges in a new area as each bulge is pushed in. Whereas health care has been endorsed as a right, the consumers seem to be caught in the middle. Private physicians such as those in managed care facilities work on a "fee for service" system, so that there has been a built–in incentive for them to do more not less, for a patient. They are in fact in the unique position of being able to manipulate the demand for their services (Salmond, 1999).

From the results of this study, the cost of care in the managed care health facility under study was higher than that of the unmanaged care facility. It would seem that the cost of care was determined by the Length Of Stay (LOS) or charged "per bed night" in the non-managed care facility while in the managed care facility the cost of care was determined by both Length Of Stay (LOS) and "fee for service". Patients who for example were admitted for an appendicectomy which had a Length Of Stay (LOS) of 0-4 days paid a Total Final Bill of P15 000.00 of which they had to make a core payment of P2 500.00 on admission. In comparison, patients from the non-

managed care facility paid a standard "per bed night" rate of P60.00 which came to P240.00 for the Total Final Bill after four days of stay. The standard Length Of Stay for most of the experiences did not differ except for patients who came in for repair of Fractured femur by Open Reduction and Internal Fixation who seemed to stay longer in the non-managed care facility because of other reasons that the researcher did not delve into in this study.

Patients in the managed care facility parted with relatively large sums of money paid both as core payment and what their medical aids had to pay. In return, according to the results of this study, they received overall health care whose quality did not differ regardless of where this care given. The cheapest bill that the patient could sign for at the managed care facility was P3000.00 for a one day stop over for a gastroscopy compared to P60.00 by the same patient if they had gone to the non-managed care facility.

Patients described the cost of their outcomes as "too high-unjustified" or simply "too high"at the managed care facility although a few still said it was "value for money". On the contrary, the cost of selected patient outcomes was described as "cheap" and "reasonable" by 30 (93.75%) patients out of the sample of 32 at the non-managed care facility compared to 8 in the non-managed care facility. However, in spite of the "cheap" and "reasonable care" non of the patients in the non-managed care facility described outcomes as "value for money" compared to 15 in the managed care facility where care was deemed to be "unjustifiably high" yet its outcomes could be "value for money".

An interesting finding was that patients admitted for child delivery paid P6 000.00 if a delivery was normal or P13 000.00 – P16 000.00 if delivery was by Caesarian Section in the managed care facility and yet patients who chose to deliver in the non-managed care facility were not charged anything as all deliveries are not charged for. The Length Of Stay (LOS) was however the same for both normal and Caesarian Section deliveries. Yet another interesting finding was that patients admitted for repair of fractured femur by open reduction and internal fixation

(ORIF) pay a fee of up to P30 000.00 for their seven day Length Of Stay (LOS) in themanaged care facility whereas the most their counterparts in the non-managed care facility would pay for a whole month's stay would be about P1 800.00.

Wayland and Kleiner (1997) argue that patients' pervasive vision of health care as a right has generated an insatiable demand for services. He observes that private insurance has allowed patients to be separated from costs which have discouraged them from seeking value for cost. Even as insurance premiums increase and core payments gain popularity, patients are insulated from the cost of health care if they have private insurance. They advise that the solution to rising costs is to connect value to cost and weigh the two. He argues that these decisions must be made by the patients as they receive the benefits and ultimately pay the costs.

Objective 2: Determine possible **variations in cost of care** and **actual patient outcomes** of selected medical conditions or procedures.

Research Question 2: Is there a **difference in the cost of the selected patient outcomes** from clients who receive care in the different selected health care facilities in Botswana?

Major differences in the cost of care without resultant significant differences in actual patient care outcomes were observed in this study. Insignificant relationships existed in patient expectations of outcomes of care as shown by the ***p values*** of ***0.4474, 0.6548 and 0.05145*** for accommodation, food, physician care and overall health care experiences respectively, meaning that the quality of care was not a factor in determining actual patient care outcomes. Thus similarly, cost did not affect these outcomes.

Did cost denote better outcomes? No, in this study cost was not a factor in determining outcomes as an analysis of perceptions of quality of outcomes by the respondents resulted in an

insignificant **p-value of 0.3629** meaning that in terms of overall health care experiences, good, poor, or average overall health care outcomes were not dependent on the health care facility one chose to seek help from. Respondents from either facility experienced a quality of overall health care outcomes that were no better or worse than the other. Whether one paid P6000.00 for a normal delivery in the managed care facility or had the baby at no cost at the non-managed care facility the outcomes were the same.

If there is such a huge difference in costs and yet patients still go back to the health care facility to pay even more, what drives these repurchases? The researcher assumes that the responses to the question "What reasons would you give for coming back or not coming back?" may answer the question. Respondents mentioned such reasons as "lack of alternatives", "convenience" as reasons that would make them make repurchases even if the costs we unjustifiably high". This then means that given an alternative the respondent would defect to an alternative facility or another that offered the same or better convenience. On the contrary, respondents who said costs were cheap or reasonably but would still defect to a different facility are also communicating to the hospital managers that they are dissatisfied with a certain other aspect of the care and that therefore it is in the interest of the managers to find out what exactly satisfies their customers.

Objective 3: Measure and compare the level of discrepancy between **patient expectations** and their **perceptions of what they received (outcomes)** in the selected managed and non managed health care facilities in Botswana.

Research Question 3: What is the **quality of the health care outcomes** that clients pay for in the different selected health facilities in Botswana?

With a shift to patient focused care and the need to provide quality care, within an environment of cost restraint, it is important to determine if patients have achieved their expected outcomes on discharge from the hospital and prior to returning to their families. In this study, at least 42 (52.5%) of the total sample of 80 confirmed that their expectations of overall health care

outcomes had been met and exceeded. Only 9 (11.3%) were dissatisfied with the perceived outcomes as they were "worse than they had expected". A chi square of 19.4, with Df of 2 and a ***p value of 0.0000*** in nursing care experiences shows a high relationship between expectations of outcomes of nursing care experiences and the health care facility that these outcomes are expected from. On the contrary, insignificant relationships existed in patient expectations of the quality of accommodation, food, physician care and overall health care experiences. The respondents' expectations regarding these health care experiences were not dependent on the health care facility that the respondent was admitted in.

The importance of the customer within the definition of the quality concept has always been recognised in the literature on consumer behaviour (Cardozi, 1965). According to the model of total perceived quality developed with the Nordic School of Services, described by Gronroos (1983), the **customer perceived quality** is basically a function of the customer's perceptions of two dimensions: the **impact of the outcome** or the technical solution (**what the customer receives)** and an additional impact based on the **customer's perceptions of the various interactions** with the firm (how the so-called "moments of truth" are perceived).

Defining a product as the extent to which a product or service meets and/or exceeds **expectations** allows managers to include subjective factors that are critical for customer's judgements. Quality is all about meeting the needs and **expectations** of customers and stakeholders. The **quality** business principle of **client satisfaction** therefore when applied to an institution such as a health care facility, requires that the health care facility make a paradigm shift from dealing with patients, and medical insurers to that of having customers and stakeholders. It requires the health care facility to identify all of its customers and all of their needs and to be able to describe the **outcomes** or deliverables that will meet those needs (Zeithaml, et. al., 1996).

Carruthers (2001) explains that the tenet "the customer pays our salaries" is founded on the principle that the **chain of quality** is only as strong as its weakest link; a principle which makes

it necessary to focus on the internal customer as well as the person in the process of delivering the final product.

Nurses, doctors and other persons in the chain of the hospital administration are internal customers who are responsible for the survival of the business. Knowledge management, described as the process of capturing, sharing and leveraging a company's collective expertise is a concept that is viewed as an important part of the business. Knowledge management, as observed by Maritz (2001) caters for the conditions of organizational survival, adaptation and capabilities in competence in the face of increasingly discontinuous environmental change. Modern organizations he argues will therefore enhance competitiveness through effective knowledge management. The same should thus occur for nurses and doctors.

Objective 4: Describe how **quality levels** relate to **cost of care**.

Research Question 4: Are patients **satisfied with the quality of outcomes** and care that they pay for?

Rodwin (1995) observes that health care quality is a multi-faceted, value laden theoretical construct with quantitative and qualitative dimensions, some of which can be and are measured informally and formally by consumers, providers and payers. Discussions about containing costs raise concern that quality will decrease even if studies have found no relationship between cost and quality (Rodwin, 1995). Consistent with Rodwin's findings, this study upheld the same findings. There was no significant relationship between the quality of overall health care experiences that the respondents received and the facility that they received the care ***(p=0.3629).*** While the cost of health care experiences in the non-managed care facility was dependent on Length Of Stay or "per bed night" and was charged at a minimal rate of P60.00 per day, in the managed care facility charges for providing a single day service like having a gastroscopy set the respondent back by P3 000.00 meaning that such charges were on the basis

of both Length Of Stay and "fee for service". However the quality of overall health care experiences did not differ.

Customer satisfaction drives future profitability. It is a vital measure of performance for firms, industries and national economies. Heavy use of satisfaction surveys by service industries is driven by the assumption that a satisfied customer will return for a repurchase (Jones and Sasser, 1995)

Does satisfaction always imply customer loyalty? Will a satisfied customer always return for a repurchase? A **dissatisfied customer** may still continue his/her patronage if he / she expects no better from alternative suppliers. Added to this is the fact that a **satisfied customer** may be willing or even eager to purchase alternative suppliers hoping to receive even more satisfying results (Mittal & Lasser, 1998).

On the contrary, Mittal and Lasser (1998) still argue that for health care services, if the service is delivered in an uncaring manner; patients will be dissatisfied even more than if the problem is poorly resolved. Two explanations are offered for this. One, the medical conditions typically take time to improve whereas the interpersonal experience is immediate and direct, patients are handled by admissions staff and by paramedics even before they see the doctor. Added to this is the fact that in their suffering, patients are looking for some caring and comfort at the moment rather than immediate relief from the physical pain. Thus, how well they are treated as a person forms a more direct and pre-emptive impression on them.

In this study, of the 80 respondents, at least 42 (52.5%) reported positive disconfirmation (confirmation) with the expected outcomes of their overall health care experiences meaning that they were satisfied with the outcomes as they exceeded their expectations. However 9 (11. 3%)

were dissatisfied or had negative disconfirmation meaning that the outcomes of overall health care experiences were worse than expected.

Will those who say they enjoy the quality come back for more?

Some business analysts have suggested that the cost of recruiting a new customer is five times more than the cost of retaining an existing customer. Doing business with continuing customers is known to save money on a variety of recruitment costs such as cost of advertising to entice new customers, cost of setting up new accounts, costs of explaining business procedures to new clients and costs of inefficient dealings during the customer's learning process (Barsky, 1994). In this study, from the 38 respondents who said cost of care was either cheap" or "reasonable" at least 8 would not be coming back to the same facility while 13 of the 25 who said that the costs we "too high – unjustifiable" would still be coming back for more care. There was a weak correlation between cost and the decision to repurchase health care services from the two facilities. However the same results would seem to show that it is not just the cost factor that is the determinant of decisions to make a repurchase of goods or services. Other reasons given as comments for coming back or not coming back to the facility such as "lack of alternatives" or "convenience" could apply in this sample group. Forbes (1997) in her study of "Patients' perceptions of outcomes of a Canadian hospitalization" concluded that environmental factors such as the hospital milieu and the meals were also a determining factor. Many of the respondents commented positively on appearance of the hospital setting but food received negative comments. Similarly in this study, while accommodation was ranked as of "average quality" food in both hospitals ranked very low as mostly poor to very poor.

However, explained Mittal and Lasser (1998), continuing customers profit the company more than by saving on costs. They progress to buying more of their total requirements from one supplier, and buy a more comprehensive product line from the supplier. The longer a business firm can keep a customer, the greater the life-time revenue from that customer. Added to this is the observation that while revenues increase from the same customer, the costs of servicing this

same customer decline. Thus, **customer retention** becomes an Important source of long-term business success.

However, Bitner et.al.(1994) observe that although companies are realizing the value of keeping customers loyal, no one knows for sure how to do it. He asserts that companies measure **customer satisfaction** and hope that if the satisfaction scores are good, the customer will stay with the firm, but, even satisfied customers leave for the lure of a competitor's offer. Berry, (1980); Keaveney, (1995); Lovelock, 1991; and Zeithaml et. al. (1996) in exploring the problem of **customer defection** in service industries, explain that service industries present a more difficult setting for understanding **customer disloyalty** as opposed to manufactured goods industries. They reason that for service firms, the basis of customer choice and continued patronage are less obvious. Services such as health care services are intangible and they cannot be completely standardized. At the minimum, they vary according to the mood of the service provider (nurse, doctor, admissions clerk, or paramedic) and customer (patient) at the moment of service delivery. Thus in service businesses, what is given and received is relatively intangible. Consequently, customer evaluative criteria are less well articulated, and the value received is much more subjective.

14. CONCLUSIONS

The following conclusions were derived from this study.

1. The cost of selected patient care outcomes from the managed and non-managed care facilities under study differed even though the outcomes did not differ.

2. Care from the managed health care facility was much higher than that from the non-managed care facility and was described as "unjustifiably high" while from the non-managed care facility care was described as "cheap" or "reasonable".

3. Cost was not a factor in determining outcomes as an analysis of perceptions of quality of outcomes by the respondents resulted in a p value that was insignificant. In terms of overall health experiences then, good, poor, or average health care outcomes were not dependent on the health care facility visited.

4. The majority of patients confirmed that their overall health care expectations had been met and exceeded and that they were satisfied with the care they received in either facility.

5. Customer satisfaction did not guarantee loyalty as respondents who had had their expectations met still said they would not be coming back for care.

15. IMPLICATIONS FOR MANAGERS

1. Customer satisfaction measures are inadequate on their own and need supplementing by a measure of loyalty. In separating loyal from disloyal customers, managers should ask "What drives loyalty beyond satisfaction"?

2. Managers must establish the basic requisites of customer satisfaction. There is no need on focusing on customer loyalty if the customer is unhappy.

3. Managers should identify and eliminate the causes of dissatisfaction and emphasize improvements that drive customer satisfaction. Good – excellent physicians as reported by the non-managed care respondents needs caring nurses to make satisfied customers loyal.

4. Effective expectations management is required so as to create long lasting relationships.

REFERENCES

Alexander, D. (2002). An Interview with the Chief Executive Officer (CEO) Botswana Medical Aid Society (BOMAID) Friday 5th April.

Armistead, C. (1994). The Future of Services Management. The Cranfield Management Research Series. London.

Barsky, J. (1994). **World Class Customer Satisfaction**. Irwin Professional Publishing, Burr Ridge II.

Baird, K. L. (2000). Customer Service in Health Care: A Grassroots Approach to Creating a Culture of Service Excellence. Josey-Bass. San Fransisco.

Bebko, C. P. (2000). Service Intangibility and its Impact on Consumer Expectations of Service Quality, **Journal of Service Marketing**, Vol. 14. No.1. 144 156.

Berry, L. & Parasuraman, A. (1991). Marketing Services: Competing Through Quality, The Free Press, New York, NY.

Berry, L. L. (1980). Services Marketing is Different. **Business.** Vol.30. May, 24-29.

Birdsall, C. & Sperry, S. P. (1997). Clinical Paths in Medical-Surgical Practice. St. Louis. Mosby.

Bitner, M. J. (1990) Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses, **Journal of Marketing,** Vol. 54. April, 69-82.

Bitner, M. J., Booms, B. H. & Mohr, L. A. (1994). Critical Service Encounters: The Employee's Viewpoint. **Journal of Marketing**. Vol. 58. Oct. 95 – 106.

Blancett, S. M. & Flarey, D. L. (1998). Health Care Outcomes: Collaborative Path-Based Approaches; Gaithersburg, Aspen Publication.

Blau, P. & Scott, W. (1962) Formal Organizations: A Comparative Approach. San Francisco. Chandler.

Bolton, R. N. & Drew, J. H. (1991). A Multistage Model of Customers' Assessments of Service Quality and Value, **Journal of Consumer Research,** Vol. 17, March, 375–84.

Botswana Government Printers (2001-2002) Estimates of Expenditure from the Consolidated and Development Funds; pg. 101.

Burns, N. & Grove, S. K. (1993). The Practice of Nursing Research. Philadelphia. WB. Saunders Co.

Camilleri, D. & O'Callaghan, M. (1998). Comparing Public and Private Hospital Care Service Quality, **International Journal of Health Care Quality Assurance**, 11, 4, 127-133.

Campbell, H. et al. (1998) Integrated Care Pathways. **British Medical Journal**. 316, 133 – 137.

Cardozo, R. N. (1965). An Experimental Study of Customer Effort, Expectation, and Satisfaction. **Journal of Marketing Research,** Vol. 11, August, 244 – 9.

Carman, J.M. (2000) Patient Perceptions of Service Quality: Combining the Dimensions. **Journal of Services Marketing.** Vol.14. No.4. 337-352.

Carruthers, M. Dr. (2001). Students or Customers? How Quality Principles Impact Institutions of Higher Learning Today. **Management Today.** Vol.17. No. 9/October, 49 – 51.

Chang, W. Y. & Henry, B. M. (1999). Methodological Principles of Cost Analysis in the Nursing, Medical and Health Services Literature, **Nursing Research**, March/April Vol. 48. No.2. 94-104.

Chua, W. F. & Preston, A (1994). Worrying about Accounting in Health Care. **Accounting, Auditing and Accountability Journal.** Vol. 7. No. 3. 4-17.

Chattopadhyay, S.P. & Szydlowski, H.P. (1999). TQM Implementation for Competitive Advantage in Health Care Delivery. **Managing Service Quality.** Vol.9. No.2. 96-101.

Cohen, E.L. & De Back, V. (1999) The Outcomes Mandate: Case Management in Health Care Today. St. Louis. Mosby Co.

Covaleski, J. (1995). U.S. Managed Care in Demand Overseas. Best's Review – Life-Health Insurance Edition. Vol.96 No.7. 34(5).

Deffenbaugh, J. L. (1994) Health Care Continuum. **Health Manpower Management**, Vol.20. No.3. 37 – 39.

De Luc, K. (2000) Effectiveness. **Journal of Advanced Nursing**, 32 (2) 485 –496.

Donabedian, A. (1984). Quality Cost and Cost Containment, **Nursing Outlook** 32 (3): 142.

Ebineng, K. A. (2002) An Interview with the Chief Executive Officer (CEO) Associated Fund Administrators (AFA) Monday, 15th April.

Botswana, (2001/2002). Estimates of Expenditure from the Consolidated and Development Funds. Government Printers.

Federa, R.D. & Camp, T.L. (1994). The Changing Managed Care Market. **Journal of Ambulatory Care Management.** Vol.17. 1-7.

Forbes, D.A. (1997) Patient's Perceptions of Outcomes of a Canadian hospitalization. **International Journal of Health Care Quality Assurance.** Vol.10. No.6. 221 -228.

Godiwalla, Y.H.& & Godiwalla, S.Y. (2002). Marketing Issues for the Hospital Industry. **International Journal of Health Care Quality Assurance.** Vol. 15. No.1. 25-28.

Griffin, M. & Griffin, R (1994) Market Memorandum : Critical Pathways Produce Tangible Results. **Health Care Strategic Management,** 12, 1-17.

Gro¨nroos, C. (1982). Strategic Management and Marketing in the Service Sector, Swedish School of Economics and Business Administration, Helsingfors.

Gronroos, C. (1983). **Strategic Management & Marketing in the Service Sector**, Swedish School of Economics and Business Administration, Helsinki, Finland.

Gronroos, C. (1984). A Service Quality Model and its Marketing Implications. **European Journal of Marketing.** Vol.18. No.4.

Gronroos, C. (1990). Service Management and Marketing. Lexington Books, Lexington. MA.

Heater, B. S. (1996). The Current Health Care Environment: Who is the Customer? **Nursing Forum.** Vol. 31, No.3, July-Sept, 1996. 16-21.

Hegyvary, (1991), Issues in Outcomes Research. **Journal of Nursing Quality Assurance,** 5 (2) 1-6.

Jarret, P. G. (1998). Logistics in the Health Care Industry. **International Journal of Physical Distribution and Logistics Management**. Vol.28. No. 9/10. 741-772.

Johnson, S. (1997) Pathways of Care. Blackwell Science. Oxford.

Jones, T. O. & Sasser, W. E. Jr. (1995). Why Satisfied Customers Defect, **Havard Business Review.** Nov.-Dec., 89-99.

Kane, R.L., Maciejewski, M. & Finch, M. (1997). The Relationship of Patient Satisfaction with Care and Clinical Outcomes. **Medical Care**. Vol. 35. No.7 714-30.

Keaveney, S.M. (1995). Customer Switching Behaviour in Service Industries: An Exploratory Study. **Journal of Marketing.** Vol. 59. No.2. 71-82.

Kertesz, L. (1997) The New World of Managed Care, **Journal of Mental Health Counseling**, Vol. 27 (44) 114,5p,4c.

Kitchiner, D., & Bundred, P. (1996). Integrated Care Pathways: Effective Tools of Continuous Evaluation of Clinical Practice. **Journal of Evaluation in Clinical Practice** 2, 65 – 69.

Leape, L. L., Park, R.E., Solomon, D. H., Chassin, M. R., Kosecoff, J. and Brook, R. H. (1995). Does Inappropriate Use Explain Small Area Variations in the use of Health Care Services? **Journal of the American Medical Association,** Vol. 263. No.S. 669 – 72.

Lighter, D. E. (1999). SPC in Managed Health Care – How much Variation is Tolerable? **Managing Service Quality**. Vol.9. No. 4. 240-245.

Lovelock, C.H. (1991). Services Marketing, Prentice Hall. Eaglewood Cliffs. N.J.

Maritz, D. (2001). Business Challenges in a Knowledge Society – Gaining a Competitive Advantage. **Management Today.** Vol. 17. No.9 /October. 35-40.

Minutes of the Private Sector Representatives to the Health Sub-Committee of the HLCC Meeting (Tuesday 16th April, 2002).

Mittal, B. & Lasser, W. (1998). Why Do Customers Switch? The Dynamics of Satisfaction vs.Loyalty.

Nas, T. F.(1996). Cost-Benefit Analysis. Beverly Hills, CA: Sage.

O'Connor, S. & Lanning, J. (1992). The End of Autonomy? Reflections on the Post Professional Physician. **Health Care Management Review**, 17, 63-72.

Ojasalo, J. (2001). Managing Customer Expectations in Professional Services. **Managing Service Quality,** Vol. 11. No. 3. 200-212.

Oliver,R.L. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions, **Journal of Marketing**. Vol. 56, 83-95.

Parasuraman, A., Zeithami, V.A. & Berry, L.L. (1985). A Conceptual Model of Service Quality and its Implications for Future Research. **Journal of Marketing Research**. November, Vol. 17, 460-469.

Parasuraman, A., Zeithami, V.A. & Berry, L.L.(1988). SERVQUAL: A Multiple Item Scale for Measuring Customer Perceptions of Service Quality, **Journal of Retailing**, Spring. Vol. 64, 12-40.

Porter, M.E. (1995). Competitive Advantage. The Free Press, London, 1985.

Polit, D. F. (1996). Data Analysis and Statistics for Nursing Research. Appleton & Lange. Stanford, Connecticut.

Reeder, C. E. (1995). Overview of Pharmacoeconomics and Pharmaceutical Outcomes Evaluations. **American Journal of Health-System Pharmacy**; 52 (Supp4), S5-S8.

Riley, K. (1998) Paving the Way. **Health Service Journal**. No8, 30-31.

Rivers, P. A. & Glover, S. H. (2000). Quality in Finance of Health Care: The Unaddressed Imperative. **International Journal of Health Care Quality Assurance**. Vol.13, No. 3, 134-139.

Rivers, P. A. & Tsai, K. Li. (2001). Managing Costs and Managing Care. **International Journal of Health Care Quality Assurance.** Vol.14, No. 7, 302-307.

Robledo, M. A. (2001). Measuring and Managing Service Quality: Integrating Customer Expectations. **Managing Service Care.** Vol.11. No.1. 22-31.

Rodwin, M. A. (1995). Conflicts in Managed Care. **Journal of Medicine**.Vol. 332. No.9 604 – 607.

Salmod, S.W. (1999). Managed Care: Pitfalls for Cultural Bias. **Journal of Transcultural Nursing,** Vol.10. No.4, Oct. 295 – 296.

Saxton, L. & Learman, H. (1998). Putting Total Quality Management to Work. Orion Business Books. London.

Sculpher, M. et al(1996). A Cost-Utility Analysis of Laser-Assisted Angioplasty for Perpheral Arterial Occlusions. **International Journal of Technology Assessment in Healthcare**. 12(1), 104-125.

Starfield, B., Powe, N. R., Weiner, J. R., Stuart, M., Steiwachs, D., Scholle, S. H. and Gersenberger, A. (1994) Costs vs Quality in Different Types of Primary Care Settings, **Journal of The American Medical Association,** Vol. 263. No.24. 1903 –08.

The Botswana Gazette (2001) BPOMAS Faces Financial Crisis, Wednesday 6th June.

The Botswana Guardian (2001) Quality Health Care in Botswana, Friday, 3rd August.

The New York Times (1993j) "Official Sees Pain in a Health Policy". 3 March, National Desk. Section A. 20, col.6.

Talbot, L. A. (1995). Principles and Practice of Nursing Research. New York: Mosby.

Udvarhelyi, I. S. et. al. (1992). Cost Effectiveness and Cost-Benefit Analyses in the Medical Literature: Are the Methods being used correctly? **Annals of Internal Medicine**, 116, 238-244.

Vavra, T. G. (1997). Improving your measurement of Customer Satisfaction: A Guide to Creating, Conducting, Analyzing, and Reporting Customer Satisfaction Measurement Pogrammes. ASQ Quality Press.

Wade,J.& Kleiner,B.H. (1998). Practices of Excellent Companies in the Managed Health Care Industry. **International Journal of Health Care Quality Assurance**. Vol.11. No.1. 31-34.

Wayland, G. & Kleiner, B.H. (1997) Medical Rationing as a Health Care Strategy. **Health Manpower Management.** Vol. 23, No.6; 223 – 228.

Webster's Ninth New Collegiate Dictionary (1986). Springfield, Mass. Merrian Webster.

Welch, J. R. & Kleiner, B. H. (1995) New Developments in Hospital Management, **Health Manpower Management**, Vol.21, No.5, 32-35.

White, et. al. (2000) The Impact of Managed Care on Nurses' Workplace Learning and Teaching. **Nursing Inquiry,** (7) 74-80.

Yi, Y. (1990). A Critical Review of Consumer Satisfaction in Zeithlam, V.A. (Ed.), Review Marketing, American Marketing Association. Chicago.

Zeithaml, V.A., Berry, L.L. & Parasuraman, A.(1996). The Behavioural Consequences of Service Quality. **Journal of Marketing.** Vol. 60. April, 31-46.

APPENDICES

HEADING	*APPENDIX*
Sampling Frame	1
Data Collection Instrument	2
Research Permits from: • The Office of the President – Botswana • Princess Marina Hospital – Botswana • Gaborone Private Hospital - Botswana	3

APPENDIX 1: SAMPLING FRAME

SAMPLING FRAME

	MANAGED CARE FACILITY	*NON-MANAGED CARE FACILITY*	
HEALTH CARE CONDITIONS	*GABORONE PRIVATE HOSPITAL*	*PRINCESS MARINA HOSP*	*TOTAL*
Gastroscopy	10	10	20
Appendicectomy	10	10	20
Normal Delivery	10	10	20
Caesarian Section	10	10	20
ORIF (Fractured Femur)	10	10	20
TOTAL	50	50	100

APPENDIX 2: INSTRUMENT

Questionnaire on the Cost – Outcomes Analysis of Selected Medical Conditions from Managed and Non-Managed (Traditional) Health Care Facilities in Botswana.

Dear Respondent,

Thank you for agreeing to participate in this study.

In partial fulfillment of the MBL program requirements of the School of Business Leadership in UNISA, I am required to complete a research study in an area of interest. This study is designed to explore and describe the relationship between the cost of care and the outcomes in selected health care conditions.

You are kindly requested to respond to the questionnaire and interview questions. Please be assured that all information you will give will be treated with utmost confidentiality and anonymity. Please DO NOT write your name on the questionnaire. You have the right to withdraw your participation at any time during the study.

Please complete all three sections of the questionnaire as objectively as possible.

The questionnaire should take at least 10-15 minutes.

Regards

Constance Matabiswana

MBL 3 Student.

SECTION 1: INSTRUMENT

DEMOGRAPHIC DATA

FILE NUMBER:

2. Name of Health Care Facility:	
Gaborone Private Hospital	
Princess Marina Hospital	
Delta Medical Centre	
3. Reason for Hospital Visit:	
Normal Child Delivery	
Gastroscopy	
Appendicectomy	
Open Reduction and Internal Fixation (ORIF)of Fractured Femur	
Caesarean Section	
4. Admission Date:	
5. Discharge Date:	
6. Length Of Stay in Hospital (LOS)	**Days**
7. On admission, how many days were you told you would stay in hospital?	**days**
8. Medical Insurance:	
BOMAID	
BPOMAS	
PULA	
BUPA	
OTHER (State Which)	
NONE (Privately Paying)	
9. Total Final Bill from admission to date:	P

SECTION 2: INSTRUMENT

Questions on Outcomes, Perceived Service Quality and Customer Satisfaction

Below are five (5) health care experiences that have been part of your care in this hospital. Against the statement that best describes your **expectation** of the **experience** you had, please indicate what you perceive as the **actual results (outcomes)** of these experiences by placing your choice of description under one of the categories of the Likert Scale. You may only choose one (1) statement of expectation.

Health Care Experiences	Very Poor 1	Poor 2	Average 3	Good 4	Excellent 5
Experience 1 - Nursing Care • **Efficiency/Promptness** • **Concern / Compassion** • **Adequacy of Explanations** • **Cheerfulness**					
The **nursing care** I received was about the **same as I expected.**					
The **nursing care** I received was **worse than** I **expected.**					
The **nursing care** I received was **better than** I **expected.**					
Experience 2 – Accommodation • **Cleanliness** • **Level of Comfort** • **Ventilation**					
My **accommodation** at the hospital was **better than I expected.**					
My **accommodation** at the hospital was **worse than I expected.**					
My **accommodation** at the hospital was **the same as I expected.**					

Health Care Experiences	Very Poor 1	Poor 2	Average 3	Good 4	Excellent 5
Experience 3 – Physician Care • **Efficiency /Promptness** • **Concern / Compassion** • **Adequacy of Explanations**					
The **care** I received from my **physician** was about **the same as** I **expected**					
The **care** I received from my **physician** was **better than** I **expected**					
The **care** I received from my **physician** was **worse than** I **expected**					
Comment on your experience of the Physician Care you have just received?					
Experience 4 – Food Experiences • **Attractive and appetizing** • **Variety** • **Adequate Portions** • **Served at right temperature** • **Promptness of Service**					
The **food** at the hospital was **better than** I **expected.**					
The **food** at the hospital was **worse than** I **expected.**					
The **food** at the hospital was **the same as** I **expected.**					
Comment on your food experiences during your hospital stay.					
Experience 5 – Overall Health Experiences • **Total Recovery** • **Relief of Symptoms** • **Relief of Pain**					
My **overall health** now after hospitalization is **better than** I **expected.**					
My **overall health** now after hospitalization is **worse than** I **expected.**					
My **overall health** now after hospitalization is **about the same as I expected.**					

SECTION 3: INSTRUMENT

9. Have you ever received care as an in-patient in this hospital? Yes ☐ No ☐

10. Would you or would you not come back for care if you needed it? Yes ☐ No ☐

11. What reasons would you give for coming back or not coming back?

12. While you have been in hospital have you had an occasion to complain about any aspect of the service provided? Yes ☐ No ☐

13. If Yes, to whom did you complain?

14. Briefly describe what the complaint was about.

15. Was the problem corrected to your satisfaction? Yes ☐ No ☐

16. Describe what aspect of your care you have been most pleased with during your stay in this hospital.

17.Describe what aspects of care you have been least pleased with during your stay in this hospital.

18. What is your comment about the cost of your care during this admission?

THANK YOU FOR SHARING THIS INFORMATION WITH ME.

APPENDIX 3: AUTHORISATION

TELEGRAMS: PULA
TELEPHONE: 350800
TELEX: 2655 BD

REPUBLIC OF BOTSWANA

OFFICE OF THE PRESIDENT
PRIVATE BAG 001
GABORONE

OP 46/1 XCVI (82)

5th June, 2002

Ms. Constance Matabiswana
MRI-Botswana Ltd
P/Bag BR 256
Gaborone

Dear Madam,

RE: GRANT OF A RESEARCH PERMIT: MS. C. MATABISWANA

Your application for a permit refers.

We are pleased to inform you that you have been granted permission to conduct a study entitled "Managed Care: An Exploration and Description of the Relationship between the Cost of Health and the Outcomes of Care from Selected Managed and Non-managed (Traditional) Health Care Facilities in Botswana". The research will be carried out in Gaborone and Maun.

The permit is valid for a period not exceeding ten (10) months effective June 5, 2002.

The permit is granted subject to the following conditions:

1. Copies of any report/papers written as a result of the study are directly deposited with the Office of the President, National Assembly, Ministry of Health, Health Research Unit, National Archives, National Library Service, National Institute for Research, National Conservation Strategy Agency and University of Botswana Library.

2. You conduct the study according to the particulars furnished in the application.

3. The permit does not give authority to enter any premises, private establishment or protected area. Permission for such entry should be negotiated with those concerned.

4. Failure to comply with any of the above-stipulated conditions will result in the immediate cancellation of the permit.

Yours faithfully

J. Mosweu

for/PERMANENT SECRETARY TO THE PRESIDENT

cc: Permanent Secretary, Ministry of Health
Clerk of the National Assembly
Head, Health Research Unit
Executive Secretary, National Conservation Strategy Agency
Director, National Archives
Director, National Library Service
Director, National Institute for Research
Librarian, University of Botswana Library
District Commissioner/Town Clerk/ Council Secretary
- Gaborone
- Ngamiland District

Land Board Secretary, Tawana Land Board

GABORONE PRIVATE HOSPITAL

Plot 8448 Mica Way
Broadhurst
Private Bag BR 130
Gaborone Botswana

Telephone (267) 301-999
Facsimile (267) 301-998

26th June 2002

Ms Connie Matabiswana
MRI Botswana Ltd
Private Bag BR 256
Gaborone

Dear Connie

Re : RESEARCH STUDY

This serves to confirm that we have no problem with your conducting your research study at the Gaborone Private Hospital.

We however request that you liase directly with Matron Chinyimba when the exercise takes place and that we will be privy to your exercise.

Yours sincerely

Shaun Ryan
HOSPITAL MANAGER

Telephone: 353221
Telegraphic Address
Reference

REPUBLIC OF BOTSWANA

Princess Marina Hospital
P.O. Box 258
Gaborone
Botswana

27th August 2002

Ms C. Matabiswana
MRI Botswana Ltd
Gaborone

Dear Ms Matabiswane

RE: MANAGED CARE: THE COST OF HEALTH AND THE OUTCOMES OF CARE FROM SELECTED MANAGED AND NON MANAGED (TRADITIONAL) HEALTH CARE FACILITIES

I am happy to inform you that the above proposal was reviewed and approved. This approval remains in effect until May 2003. However, under Appendix 1 (ie Sampling Plan), it would be wise for you to address the common conditions rather than to choose some procedures which may make you not to get the required participants.

On behalf of the Research and Ethics Committee, I wish you success in this important research endeavor.

Yours Sincerely

Tswelelo Kahiya
Secretary, Research & Ethics Committee

THE END