An Najah National University
Faculty of Graduate Studies

Assessment of Perceived Health Care Service Quality at Palestinian Hospitals: A Model for Good Hospital Management Practice (GHMP)

By

Majd Abd Al-Rhman Fareed Al-Adham

Supervised by

Dr. Amjed Al- Ghanim

Submitted in Partial Fulfillment of the Requirements for the Degree of Master in Public Health, Faculty of Graduate Studies, at An-Najah National University, Nablus.

2004

Assessment of Perceived Health Care Service Quality at Palestinian Hospitals: A Model for Good Hospital Management Practice (GHMP)

By

Majd Abd Al-Rhman Fareed Al-Adham

This thesis was successfully defended and approved on 9/8/2004 by:-

Committee members	**Signature**
Dr. ʼAmjed Al – Ghanim - Suprvisor	
Dr. Varsen Aghabekian - External Examiner	
Dr. Suleiman Al- Khalil - Internal Examiner	

إهـ ـداء

حمدا لله على نعمة التي لا تحصى وشكر له على ما أنعم به علي من قدرة أعانتني على التفكير وقوة أعانتني على الدراسة والتحصيل، وما أمدني به من صبر وجهد للوصول إلى نتائج متواضعة قد تنفع الدارسين في الوصول إلى نتائج أوسع في هذا المجال.

أهدي خلاصة جهدي إلى أعز الناس لقلبي (أمي وأبى) والى جميع أفـراد أسرتي الذين لم يألوا جهداً ولم يدخروا وسعاً في تهيئة الظـروف الملائمـة لـي لأتمكن من الدراسة والبحث.

شكر وتقدير

أتقدم بالشكر والعرفان إلى أساتذتي الأفاضل في كلية الصحة العامـة فـي جامعة النجاح الوطنية لدعمهم وتشجيعهم لي.

وأخص الشكر والتقدير الدكتور أمجد الغانم المشرف على هذه الرسالة على الجهود التي بذلها من أجل إخراج هذه الرسالة إلى النور.

والشكر والتقدير إلى الدكتور عفيف جودة والدكتور قاسم المعـاني وأثمـن غالياً تشجيعهما ودعمهما لي، جزاهما الله عني خير الجزاء.

كما أتقدم بالشكر والتقدير إلى كل الدوائر والمؤسسات الرسمية التي فتحت أبوابها أمامي ومكنتني من الوصول إلى ملفاتها بحثـاً عـن الحقـائق والأرقـام، وأخص الشكرالدكتور كمال الوزني.

وأخيراً أشكر جميع الزملاء الذين عملوا وتعاونوا معي في جمع البيانـات التي بنيت عليها رسالتي ولكل من كان عوناً وسنداً لي في إنجاز هذه الدراسة.

DECLARATION

No portion of the work referred in this thesis has been submitted as an application for another degree or qualification of this or any other university or institute of learning.

List of Contents

List of Tables

List of Figures

List of Graphs

List of Appreciations

AIDS	Acquired Immunodeficiency Syndrome
GDP	Gross Domestic Production
GNP	Gross National Product
GP	General Practitioner
GS	Gaza Strips
HACCP	Hazard Analysis Critical Control Point
HMSP	Health Management Strengths Project
HRD	Human Resources Development
HRH	Human Resource of Health
ICU	Intensive Care Unit
MIS	Management Information System
MOH	Ministry of Health
MOPIC	Ministry of Planning and International Cooperation
NGOs	Non Governmental Organizations
NHP	National Health Plan
PHC	Primary Health Care
PNA	Palestinian National Authority
Pop.	Population
QA	Quality Assurance
QIP	Quality Improvement Project
QIT	Quality Improvement Team
SPQUC	Strategic Plan for Health Care
SPSS	Statistical Package for Social Science
TQM	Total Quality Management
UNICEF	United Nations International Children's Emergency
UNRWA	United Nations for Relief and Work Agency
WB	West Bank
WHO	World Health Organization

Assessment of Perceived Health Care Service Quality at Palestinian Hospitals: A Model for Good Hospital Management Practice (GHMP)

By
Majd Abd Al-Rhman Fareed Al-Adham
Supervisor
Dr. Amjad Al-Ghamen

Abstract

Over the last 20 years, the increasing complexity and technical intensiveness of healthcare in Palestine hospitals have increased the level of uncertainty in the process of care. The variables within the health care environment (demand, cost, system deregulation) are undergoing rapid changes. This study is the first of its kind to investigate beyond quality management approaches, the most important issue in health care management, and the need to implement new organizational model in response to the dynamic changes that are transforming the health care process in Palestine. The study was conducted during January-June 2004 and involved all hospitals working within the City of Nablus.

The primary aim of this study was to investigate the possibility of applying quality management approaches into the health care system through the identification of the level of offered services in Nablus hospitals (Public, private and charity) and to search for possible factors affecting level of offered services. The study also aimed at finding out to what extent these hospitals implements the criteria and the standards of quality management system.

To achieve our goals, two structured questionnaires especially designed for this purpose were used targeting both staff and patients. Collected data was analyzed using SPSS.

Several hypotheses were formulated and tested based upon TQM principles. The results of the current study showed significant differences in the assessment of both staff members and patients and the level of offered services in the various departments within the same hospital and between different hospital sectors. Based upon the criteria level (Likert Scale) set for all hypothesis (3.5 out of 5 points, for good evaluation) most departments showed levels less than 3.5 indicating areas of weakness in most working departments with the exception of working departments in the private sector. A direct relation ship between over all hospital delivery care processes and patient satisfaction, where patient satisfaction is directly related to the attitudes and perception of employee as they, in turn related to the hospital and its management practices was found.

The results also showed that total quality management criteria are not considered as hospital priorities. With the exception of Rafidia hospitals none of the operating hospitals is applying any of the TQM principles. Departments applying such principles in Rafidia hospital (only 4) scored higher levels compared to Al-Watani hospital, thus indicating clear advantages in favor of TQM application. Furthermore, correlation analysis confirmed suggestions that further work is required for the establishment of a health care quality management model in hospitals.

In conclusion, based upon the findings of the current study a proposed model for the improvement of the existing system was suggested.

Chapter One

Introduction

1.1 General Background

Despite much attention and emphasis on primary care as first point of contact for patients, hospitals in most countries remain an important source of critical health care services, providing both basic and advanced care to the population. Hospitals are often the provider of last resort for the critically ill and poor. Yet hospitals also comprise the largest expenditure category of the health system of both industrial and developing countries. As result, although their critical role as an integral part of the health system is well recognized, hospitals are often the target of health sector reforms amid at efficiently, equity, and quality improvement and more systemic reforms in financing and the health care delivery system (Alexander, Preker and Harding, 2003).

Over the last 20 years, the increasing complexity and technical intensiveness of health care in Palestine hospitals have increased the level of uncertainty in the process of care. We do not have a clear understanding of transformation that have occurred in the process over the last 20 years, but three general trends can be discerned; First, the process has become more intensive, because the length of stay has been reduced by at least 30% over the last 10 years. Second, the diversity of treatment has increased, due to proliferation of medical specialties, the growing awareness of social perspective of each patient, and the development of new technologies. Third, the combination of a variety of treatment and more intensive care has generated increased uncertainty; i.e. many unpredictable events can occur because the increased needs for coordination between units.

Thus, intensity, diversity and uncertainty are three characteristics that define the complexity of the care process. When these characteristics

considered together, it is easier to understand the unique qualities of health care and the challenges they present for organization.

In Palestine, the design of the organization has been neglected by policy- makers, hospital directors, physicians, and others for over 20 years. This explains why the nature and magnitude of the organizational changes now needed are still being debated. The process of care and its management have traditionally been viewed from the following three perspectives.

- Physicians: who directly manage clinical operations, but are rarely involved in the different stages of the care process. They generally focus on one specific stage and rarely meet with members from other care units. Physicians often consider organizational issues as problems for nurses to deal with, and there is a tendency to overlook the real responsibilities of nurses in both clinical land organizational realms**.**

- Nurses: in contrast to physicians, nurses provide care on a continuous basis and must deal with an organization's problems every day. For these reasons, nurses are interested in implementing organizational changes, even though currently they have no power to do so.

- Administrators: the third perspective is that of the hospital director. The term "administrative perspective" highlights the fact that, in Palestine, hospital direction is more about administration than about management. For example, hospital directors often are unable to evaluate and change physician practices or new technologies. This might be due to lack of specially assigned "medical managers" in Palestinian hospitals and most hospital directors are doctors, whom may not have the necessary skills,

knowledge and experience to deal with the matters pertaining to complex management situations.

These observations might be behind the lack of organizational principles in our health care system. Such poor organization is expected to results in problems that might affect everyone in the health care process (e.g. residents, interns, specialized physicians of all sorts, physiotherapists, psychologists, specialized nurses, patients, patients' families, and so on). However, figuring out how to develop better coordination is tremendously difficult when one considers the rapid changes occurring in health care and the absence of any established organizational frameworks. Process of care should be designed around the needs of patient. This can be improved only by incorporating process and out come measures into daily work. Such measures make it possible to understand the degree to which performance consist the best practices, and extend to which patient are being helped.

Quality of health can be improved if the issue of inefficiency in the delivery of health care needed is tackled. Quality management" offers a solution that stands the highest chances of tackling the problem of inefficiency. Total quality management "TQM" has offered a strategy for improvement, with new tools and methods. TQM is an approach to improve the competitiveness, effectiveness and flexibility of whole organization. It's essentially a way of planning, organization and understanding each activity, and involving each individual at each level. It is away of ensuring customer satisfaction through involvement of all employees in learning how to reliably produce and deliver quality goods and services (Oakland, 2000). The application of TQM to health care setting can cover the whole range of health care delivery spectrum

including both health care delivery as well as the administrative superstructure (Massoud, 1993). At hospital field TQM concepts in the standards include the key role that leaders play in enabling the systematic assessment and improvement of performance. As most problems or opportunities for improvement derived from process weaknesses not individual incompetence; the need for careful coordination and collaboration among departments and professional groups is essential (JCAHO, 1994).

1.2 Hospital management in Palestine

1.2.1 Health sectors

The Palestinian health care system is a mixture of public, non-governmental, UNRWA, and private (profit and not for profit) service delivery, with a developing governmental health insurance system (Palestine Ministry of Health, 2003). National inputs into health care in Palestine appear to be relatively high. Health outcome indicators for the Palestinian people are comparable to those of other nations with similar economic status. These nations appear to be investing less in health both in terms of per capita expenditures on health and in terms of percent of national product interested in health care delivery. In a study by World Bank (1997) they estimated the per capital health expenditure in West Bank and Gaza skip at 122 US$ in 1996 which means 8.6% of gross domestic product (GDP). For the purpose of comparison, expenditures on health care for neighboring countries (1997) were: Egypt spent 4.8% and Jordan 7.8% and Israel 8.4% (1999) of GDP, with an average annual expenditure of 1384 US$ per person (Palestine Ministry of Health, 2003).

The number of physician in primary and secondary care in the West Bank and Gaza is 2897 physicians (1.1 physicians per 1000 population) in 2002. Number of nursing staff was 2161 in 2002 with a ratio of 7.6 nurses per 10.000 populations, 1.7 nurses per physician and 0.69 nurses working in hospitals per bed. For the purpose of comparison, the physician to 1000 population for neighboring countries 1999 was: Jordan 1.54, Egypt 0.77, Syria 0.85, and Israel 2.9 (Palestine Ministry of Health, 2003).

MOH expenditure as % of GDP was 3.2% about one third of all health care expenditure are directed toward ministry of health facilities (including capital expenditures), while private providers, non- government organization, and UNRWA making up the rest.

In (2002), about 24.9% of all MOH health care expenditure in Palestine was on drugs, vaccines, and medical disposables, about 57.9% of MOH budget and nearly half of all expenditures in UNRWA and the non-governmental sector consisted of wages and salaries and other forms of employee remuneration. Finally, about 6.4% and 10.8% of total MOH health expenditures were on referral for special treatment and other operating coast respectively (Palestine Ministry of Health, 2003).

In Palestine, there are 76 hospitals. The population ratio is 45,585 populations per hospital. The average bed capacity per hospital is 63.03 beds. The total number of beds in Palestine is 4792. In Gaza Strip (GS), there are 24 hospitals making 31.58%. In West Bank (WB) including Jerusalem, there are 52 hospitals making (68.42%). The population/bed ratio is 723 in the whole Palestine including Jerusalem. Hospital bed/ 1000 population is 1.3 in the comparison with the number of beds in Israel is 2.27 per 1000 population (Palestine Ministry of Health, 2003).

The occupancy rate 76.8% and the average coast of hospital bed is 56.8 US$, where the average coast of hospital day is 77.7 US$. The average inhabitant coast from hospital coast is 25.7 US$ (Palestine Ministry of Health, 2003). For More details see appendix B.

Basic equipment and supplies are generally adequate and available. The deduction is to be made here is certainly not that “no further increase in inputs into health care are required”! Considerable investment will certainly be needed. It is rather that, the mainstay of improvement program should be a plan of action directed at better utilization of existing resources and future investments. This can lead to improvements irrespective of any future investment, or of its size.

1.2.2 Challenges facing health care in Palestine

1.2.2.1 Factors affecting quality of health care

Several factors affecting the quality of health care. These can be categorized into three main groups: First, inputs into health care: investment in health care, human resources in the health care sectors, facilities, equipment and supplies. In Palestine, there does not appear to be problem for poor investment of inputs into health care. Quite the contrary, input are relatively high. If anything, national expenditures on health care, are in excess of what would be expected from an economy of such as that of Palestine. Deficiency in inputs cannot be the answer to the poor quality of health care in Palestine. Second, response allocation, improper allocation of health resources: into relatively coast- effective program or the contrary. This is difficult to assess with available data. However, given the relatively large number of community based practices and their staffing (particularly UNRWA and NGO services) together with the high

immunization coverage as an example, it dose not appear that the effective primary care measures are neglected. Any assessment of the health services in Palestine leaves no doubt that there is big room for more effective resource allocation. It appears unlikely that infective resource allocation is the major contributor to the poor quality of health care in Palestine. Third, the efficiency of the delivery of health care: the degree to which there exists, or does not exist, duplication of efforts, re-work, unnecessary work and spending, and other different forms of waste in the system.

Efficiency is a measure of the inputs invested in a system to the outputs obtained from that system. It is clearly not possible to quantify this on a national scale. However, the issue of efficiency may be approached in a conceptual sense.

In the health care sector in Palestine, the investment in inputs is higher than what would be expected for the obtained outcomes. Further more, given the high percentage of GDP spent on health care, increased inputs premises, redistribution of resources, can not possibly be suggested as a solution for improving health care quality. In other words, there appears to be an over-investment leading to outcomes that are normally, achievable with less investment. The real problem seems to be a poor inefficient system of health care delivery.

12.2.2 Factors contributing to poor efficiency

Many factors in the health care system contribute to poor quality. At the top of the list among these factors are the mechanisms of financing and the management of the system.

Many management factors are affecting the quality of health care in Palestine. At the top of the list of these factors are leadership and organizational culture.

1.2.3 Consideration should be given to change

Consideration should be given to change in the external environment that can indirectly influence the implementation of quality improvement such as: Economic; Technological; Socio-cultural; Political- legal; and the international variables. The direct action elements of the external environment: competitors; customers; labor; and financial institution.

1.2.4 Is it management problem?

A fragment structure and uneven distribution of services and human resources between the various providers characterizes the Palestine health care system. These characteristics are causing low quality and high coast health care, generating in equities in access to health care, causing conflicts among providers and the patients, occasioning a disparity of care, and promoting moral and ethical dilemmas. There is general discontent among the professional and public in Palestine, regarding the quality of health care. The “quality defect” in the health care system in Palestine seems to revolve around an inefficient system of delivery of health care.

This poses two interesting questions; are the limited resources in Palestine are the only cause of poor quality of health care in Palestine? And how much more investment in resources is needed to improve the quality of care?

Better quality of health care does not necessarily imply higher health care costs nor does it imply quality irrespective of the cost. The quality of

health care in Palestine can be improved with the available resources. There is a need to increase the efficiency of the health care system, and to reduce waste in resources. Cost saving can be obtained from reducing unnecessary care, preventing complications, and eliminating activities that do not add any value to the processes or the outputs of the system.

1.2.5 Does total quality management address the basic problem of health care organizations today?

The basic problems in health care organizational today are the great demand for more advanced health care by the patients, the existing inefficiencies in the health care delivery systems, and the escalating costs of the health care services. As a managerial tool, total quality management offers a new approach, with new tools and methods, that could be put into use in order to solve the existing problems. The same, to lesser or greater extent, depending on the problem, issues apply not only in the USA and other industrialized countries, but also to the developing world. There is much discrepancy between the demand for high quality health care services and the actual ability to cover the coast requirements of these services.

In health care, quality is measured against the optimal level of medical care given available resources such as medical knowledge and technology. The above definition mentions two important elements: optimal care and available resources. Optimal care simply means that the hospital is doing it's very best to serve their clients up to limit of their physical and non-physical asset. It implies that more quality can be attained by simply using the more quality can be attained by simply using the available resources to it optimum without necessarily increasing its assets. This definition invalidates the simplification that quality is somehow related to level of resources at the hospital’s disposal. That public hospitals, smaller

hospitals, and rural hospitals are rendering quality service provided they optimally use whatever resources are available to them. Private hospitals, larger hospitals, and urban hospitals are not necessarily rendering more quality service if they are not using their state of the art facilities to the optimum.

TQM" is an approach to improve the competitiveness, effectiveness and flexibility of whole organization; it's essentially a way of planning, organization and understanding each activity, and involving each individual at each level (Juran, and Gryna, 1997).

The application of "TQM" to health care setting can cover the whole range of health care delivery spectrum. This can apply to primary, secondary, and tertiary health care delivery institutions. At Hospital fields applying "TQM" completes the transition of hospital standards from those that focus on capability to those that focus on actual performance of clinical and organizational functions and processes that most significantly impact patient care.

1.2.6 Previous work in improving health care in Palestine

The first national effort to improve health care quality in Palestine goes back to the central unit for quality of health care at the Palestine council of health care in 1994. At that stage, the primary focus was on understanding the concept of poor quality of care and its impact on the well being of the population. In addition, a great deal of ground work was carried out, primarily by local Palestinian professionals. To sensitize top policy makers and carried out, primarily by local by Palestinian professionals, to sensitize top policy makers and key professionals to the "need and opportunity for health care quality improvement and the

development of a national strategy for health care quality improvement (which was outlined in the “strategic plan for quality of health care in Palestine, December 1994 SPQHC”) the SPQHC was enriched and dressed at six national workshops in which over 150 policy makers and key professionals participated, and through reviews conducted by several world authorities on health care quality improvement. On the basis of the SPQHC, the MOH decided in 1996 to launch a three- year institutional capacity building quality improvement project (QIP) in cooperation with the World Bank. Currently, an extension is being considered to achieve the evolving national priorities at the intervention level covering primary, secondary and tertiary health care (Palestine Ministry of Health, 1999).

The QIP in the MOH has defined its overall a goal as “Attaining the highest possible level of quality of healthcare in Palestine”. Achieving this goal encompasses two distinct parts: part one is the health system reforms aimed at reforming the Palestinian health system in ways that stimulate and facilitate quality improvement. Part two is the quality of health care program, which relates to the required activities necessary to improve the efficiency of the provider organizations.

The initial phase of the QIP concentrated on project setup, training of the MOH/QIP core staff members on the principles and methods of total quality management applied to health care, enhancement of team skills, and development of the mission, vision and understanding of SPQHC. Three development models for the first set of improvement projects were selected at (Shifa and Naser pediatric hospitals in Gaza and Rafidia surgical hospital in the West Bank). Examples included workshops on “sensitization for quality”, with a training curriculum in Arabic, and the formation eight

quality improvement project teams. In April 1997, a second cycle of improvement projects was initiated. This witnesses an expansion of activities into 10 sites with 39 improvement projects, involving the training of some 170 professionals over five courses of 6 days each. This large increase in improvement projects necessitated the introduction of a special system in which improvement projects became programmed activities, and a special implementation manual was developed for that purpose. Such approach has been crucial to enable a handful of professionals to meet the challenge of implementing a large number of projects. It also served to create a new generation of quality improvement champions.

In January 1998, new aims for improvement were identified at the level of the MOH directorates, including primary and secondary care. Examples include a number of quality improvement activities for new hospitals in Gaza (Nasser in Khan Younis) and new primary and secondary demonstration models (Salfeet, Tulkarm and Ramallah PHC and Hebron Hospital) in the West Bank (Palestine Ministry of Health, 1999).

1.3 Statement of the problem

Hospitals should view as an entity responsible for overseeing, and integrating its important activities and functions, and not simply as a collection of independent units. There is probably no organization more departmentalized and organized around functional units than a hospital.

Hospitals, being recognized for their exceptional clinical performance show great lack of commitment to quality. Hospital services have many faults in the first stages due to process weakness not individual incompetence. The majority of the Palestinian hospitals do not have standardized operational system that defines all types of processes, whether

administrative or technical and the staff just relies on their knowledge in the profession. As result, the hospital lacks performance measures and measurement system which badly reflected on the quality service.

The most important issue in hospital management is the need to implement new organizational methods in response to dynamic changes that are transforming the care process. Uncertainty, complexity and speed can all be manage by standardizing operating procedures, by using quality management system such as the proposed system presented in this study.

1.4 Significance of the study

This study aims at designing a health care services and its related delivery process using quality management improvement model that includes all necessary procedures for an acceptable performance of clinical and organizational functions. The model of hospital quality management system designed to achieve strategic objectives including lowering costs, improving productivity, differentiating services, and innovating organizational processes. The proposed model is expected to improve internal administrative and technical operation by providing a documented system of medical and management procedures with an overall purpose to minimize medical errors. The design emphasizes on prevention of problems, patient satisfaction and continuous improvement in organization's processes.

Hospital management system approach would enable each hospital to position it self in the extent of drastic changes taking place in health care system and turbulent environment, where the prevailing variables (health care demand, spending, and deregulation) are undergoing constant change.

1.5 Purpose of the study

This study aim to achieve the following purposes:

1. To evaluate differences in provided hospital services in Nablus district.
2. To evaluate commitment to the excellence of patient care.
3. To search for areas of weakness in hospital services which is behind the existing operational problems?
4. To design a key delivery process and their related principal performance requirements and key measures.

To prepare an improvement plan that might provide the basis for improving hospital operation and competitiveness based on a planned framework and health care management system

1.6 Hypothesis of the study

The study tested the following hypothesis and all hypotheses were tested at ($\alpha = 0.05$):

1. There is no significant correlation, between TQM and the following variables in the hospitals of Nablus: (customer focus; total involvement to hospital; counter measurement methods; systematic support; continuous improvement, safety measurements).
2. There is no significant correlation, TQM and the following variables in Al-Watani and Rafidia Hospitals: (customer focuses; total involvement to hospital; counter measurement methods; systematic support; continuous improvement, safety measurements).

3. There is no significant correlation, management system, and the following variables in the hospitals of Nablus:(training and development; perception for quality; employee satisfaction; leadership; belonging to hospital; safety measurements; equipment maintenance; facilities, equipments and communications).

4. There are no statistically significant differences, in the assessment of the officials, to the services offered by Al- Watani and Rafidia hospitals due to the type's of offered service.

5. There are no statistically significant differences, in the assessment of the officials, to the level of services offered in the hospitals in Nablus, due to educational level.

6. There are no statistically significant differences, in the assessment of the officials, to the level of services offered by hospitals in Nablus, due to experience variable.

7. There are no statistically significant differences, in the assessment of the officials, to the level of services offered by hospitals in Nablus, due to gender.

8. There are no statistically significant differences, in the assessment of the officials, to the level of services offered by Rafidia and Al-Watani hospitals.

9. There are no statistically significant differences, in the assessment of patient, the level of services, offered by hospitals, due to sector variable (governmental, private, or charitable).

10. There are no statistically significant differences, in the assessment of patient, the level of all services, offered by Al-Watani and Rafidia hospitals.

11. There are no statistically significant differences, in the assessment of patient, the level of services, offered by hospitals in Nablus.
12. There are no statistically significant differences, in the assessment of patients, the level of offered services, due to sector variable of the academic qualification of the patient.
13. There are no statistically significant differences, in the assessment of patients, the level of delivery care processes, offered by different departments of hospitals in Nablus.
14. There is no significant relationship, between patients overall satisfaction and their assessment of the level of services offered in the hospitals of Nablus.

1.7 Limitation of the study

The following were the major limitations of the current study:

1- Lack of resources in the field of Hospital management.

2- Lack of co-operation and concern by some of the administrators.

3- Prevailing political situation in the area which greatly limited movements.

Chapter Tow

Literature Review

2.1 Introduction

During the late 1970s and early 1980s the United States received a rude awakening on the importance of quality and this was mainly due to foreign competition, particularly from the Japanese, which resulted in the loss of significant market share for many American companies. For example, in 1980, Detroit's share of the U.S. auto market was 71.3 percent; by 1991 it declined to 62.5 percent. Japan now supplies over one-third of the world's demand. The percentage of U.S. made computers purchased in the United States dropped from 94 percent in 1979 to 66 percent in 1989. Machine tool, electronics, steel, and other industries faced similar fates.

In 1987, the Malcolm Baldrige National Quality Award was signed into legislation, spawning a remarkable interest in quality among American business. Perhaps more than any other event, the Baldrige has helped American business take action to accomplish a transformation in management. During the 1990s and far beyond, quality remained the priority for business.

The ability to achieve world class status in manufacturing and service depends on a business strategy driven by total quality management (TQM). The followings introduce and address the issue of quality through a brief history, evaluate various definitions and perspectives of the concept in manufacturing and service, and discuss the importance of quality from an economic and competitive view point.

2.2 A brief history

Had the Industrial Revolution not occurred, quality would probably be a moot issue. During the middle ages, skilled crafts people served both

as manufacturers and inspectors, building quality into their products with considerable pride of workmanship. Craft guilds emerged to ensure that crafts people were adequately trained. The Industrial Revolution led to quality being viewed as an inspection-based activity. Thomas Jefferson brought Honore Le Blanc's concept of interchangeable parts to America. When Eli Whitney was awarded a government contract in 1798 to supply 10,000 muskets in two years, he designed special machine tools and trained unskilled workers to make parts according to a standard design that was measured and compared to a model. Unfortunately, Whitney grossly underestimated the effect of variation in the production process and its impact on quality. It took more than 10 years to complete the project, perhaps the first example of cost-overrun in government contracts.

Worker responsibility for quality was influenced greatly by Frederick W. Taylor's concept of "scientific management." By focusing on production efficiency and decomposing jobs into small work tasks, inspection was relegated to an independent "quality control" department in manufacturing organizations. The separation of good from bad product became the chief means of ensuring quality.

2.2.1 Modern developments in quality

Modern approaches to quality control had their origins at Western Electric when the inspection department was transferred to Bell Telephone Laboratories in the 1920s. The early pioneers of modern quality assurance like Walter Shewhart, Harold Dodge, George Edwards, and others developed new theories and methods of inspection to improve and maintain quality. Control charts, sampling techniques, and economic analysis tools laid the foundation for modern quality assurance activity and influenced the

thinking of two men, W. Edwards Deming and Joseph M. Juran (Evans, 2004). Deming and Juran introduced statistical quality control and various management philosophies to Japanese managers after World War II as part of General MacArthur's rebuilding program. Over the next 20 years, while the Japanese were improving quality at an unprecedented rate, quality levels in the West remained stagnant. By the late 1970s, Japanese companies had gained a significant competitive advantage in world markets, primarily due to higher levels of quality.

With a competitive crisis unfolding, coupled with increasing levels of consumer quality awareness, the technological complexity of modern electronics, and a growing recognition of outdated managerial practices, the 1980s became the decade in which America woke up to quality. Most major companies embarked on extensive quality improvement campaigns. In 1984, the U.S. government designated October as National Quality Month. In 1987, the Malcolm Baldrige National Quality Award was established by an act of Congress. (Malcolm Baldrige was a former Secretary of Commerce who died shortly before the legislation was approved. The award was named in his honor). By the end of the decade, Florida Power and Light became the first overseas company to win Japan's coveted Deming Prize for quality.

2.2.2 A race without a finish line

Despite all the publicity, a recent study by the American Quality Foundation and Ernst & Young (1991) showed some sobering results. Among the findings was that while 55 percent of U.S. firms use quality information to evaluate business performance monthly or more frequently, 70 percent of Japanese firms do. Eighteen percent of U.S. businesses look

at the business consequences of quality performance less than once each year; the comparable figure in Japan is 2 percent, and in Germany, 9 percent. Even though considerable attention is paid to quality in the United States, we may not be closing the gap with foreign competitors. Business schools are only just beginning to incorporate quality principles into their curriculum; in Japan, elementary schools teach statistical process control. While the next generation of managers may be adequately trained in quality principles, we cannot afford to wait. As one Xerox executive noted, quality is a race without a finish line.

2.3 Meaning of quality

Quality has been an elusive concept in business. Many people think of quality as some level of superiority or innate excellence; others view it as a lack of manufacturing defects. The official definition of quality, standardized by the American National Standards Institute (ANSI) and the American Society for Quality Control (ASQC) in 1978, is "the totality of features and characteristics of a product or service that bears on its ability to satisfy given needs." This definition implies that we must be able to identify the features and characteristics of products and services that determine customer satisfaction and form the basis for measurement and control. The "ability to satisfy given needs" reflects the value of the product or service to the customer, including the economic value, safety, reliability, and maintainability. Well known definitions include: "conformance to requirements" (Crosby); "the efficient production of the quality that the market expects" (Deming); "fitness for use, product performance and freedom from deficiencies" (Juran); "the total composite product and service characteristics of marketing, engineering,

manufacturing, and maintenance through which the product and service in use will meet the expectations of the customer " (Felgenbaum); "anything that can be improved" (Imal); "meeting or exceeding customer expectations at a cost that represents value to them" (Harrington); "does not impart loss to society" (Taguchi); and "degree of excellence" (Webster's Third New International Dictionary) (Schlenker, 1988).

2.4 Total quality management "TQM"

Our standing for “total quality management” developed the 1980s, a broad perspective was given, and linking the TQM approaches to the direction, policies and strategies of the business or organization. The TQM philosophy of management is customer-oriented. All members of a total quality management (control) organization strive to systematically manage the improvement of the organization through the ongoing participation of all employees in problem solving efforts across functional and hierarchical boundaries.

TQM is a technique which will also improve the competitiveness, effectiveness and flexibility of an organization. A fundamental requirement is sound quality policy, supported by effective quality plans and resources for implementation (Schlenker, 1988). TQM incorporates the concepts of product quality, process control, quality assurance, and quality improvement. Consequently, it is the control of all transformation processes of an organization to better satisfy customer needs in the most economical way. Total quality management is based on internal or self-control, which is embedded in each unit of the work system (technology and people). Pushing problem solving and decision-making down in the organization allows people who do the work to both measure and take

corrective action in order to deliver a product or service that meets the needs of their customer (Schlenker, 1988).

2.5 Quality management system

An appropriate quality management system will enable the objectives set out in the quality policy to be accomplished. British Standards (BS 5750) were also introduced, developing into the international standard, ISO 9000. The international organization for standardization (ISO) 9000:2000 series set out methods by which a system can be implemented to ensure that the specified customer requirements are met (ISO 9000:2000). A quality system may be defined as an assembly of components such as the management responsibilities, process, and resources.

A documented Quality Management System, such as ISO 9001, is a real support for TQM as it helps to clearly document an organization's quality objectives, processes and procedures and allows any quality improvements to be enshrined into new clearly defined practices. Having set an organization's strategic quality direction, performance measures are required to monitor and control progress towards the various quality goals.

In recent years, TQM has developed into more advanced techniques, aimed at helping organizations achieve overall business excellence. Six Sigma and Business Process Re-engineering (BPR) are examples of these programmers.

2.6 Quality improvement vs. quality assurance

It is important to avoid equating quality improvement with quality assurance. Quality assurance is a system of activities designed to ensure production that meets pre-established requirements. It gives the customer a

guarantee of quality by measuring product conformance with process and performance specifications. Quality improvement refers to all efforts directed to increase effectiveness and efficiency in meeting accepted customer expectations. It is a continuous process to achieve a better understanding of the market; to innovate products and processes; to manage and distribute material and products; and to provide service to customers. The success of quality improvement is based on the understanding of every member of the organization concerning the needs of their customers. Maintenance of that understanding requires continuing dialogue and negotiation with the customer and measurement of one's products and services against the customer expectations (Schlenker, 1988).

2.7 Key quality improvement concepts

2.7.1 Processes and Systems

In 1986, Deming (Deaming, 1986) describes organizations as composites of systems designed to meet customer needs. Common systems in organizations are human resources processes such as compensation or financial ones like accounting. In such systems, processes and tasks are linked together and affect one another. For example, status changes for employees will require interdependent tasks on the part of employees in payroll, compensation, benefits, training and the relevant supervisor. The basic assumptions of the Total Quality Control approach include: the practice of defining the steps and outcomes (Products and Services) in their processes and systems by employee's results in a common language, and understanding of what their jobs should be and how they fit into a larger picture. With the application of the scientific approach using flow charts, work-flow diagrams, deployment charts, brainstorming, pareto charts, process mapping and cause and effect diagrams people can see their

interdependence and that the quality of what comes out is in measure determined by the quality that goes into a process.

2.7.2 Customers and suppliers

Customers and suppliers are both inside (internal) and outside (external) the organization. People in and out side organizations that provide input to the steps in a process are "suppliers" and those who use products or service are "customers". Thus, employees in one phase of a work process are customers of the employees who produced the goods or services used by them in their work processes. Sales employees are customers of the marketing research employees. The marketing research employees are customers of statisticians and computer information systems employees who are assisting them and maintaining computing capacity for use in analyzing data. Employees within the organization receive work passed through the system, the "internal" suppliers.

2.7.3 Quality

The quality that comes out of a process is affected by the quality of what goes in and what happens at every step along the way. It follows that we must build quality into every step, process, and system to produce quality in the outcome. To do this, we must collaborate with internal and external suppliers and communicate with internal and external customers to determine their needs. Attainment of quality in products and services at competitive prices requires an emphasis on doing the right things (products and services that reflect target features based on the needs of intended customers) and doing the right things right (using efficient processes).

2.7.4 Benchmarking

Benchmarking is the comparison of the processes and systems of a given business function across companies. It can be applied to any area of an organization. It is a way for managers and employees to compare their functional performance to that of others, particularly those excellent and identifying why they may differ. Benchmarking can be defined as: analyzing how to best achieve the performance, and using information as the basis for evaluation of targets, strategies, and applications.

2.7.5 Teams and teamwork

When TQM is successful employees at every level participate in decisions affecting their work. The most common vehicle for employee participation is a team. Teams range in scope and responsibility from problem-solving groups to self-managed work teams that schedule work, assign jobs, hire members, and set the standards and volume of output. A participative work culture is encouraged when quality becomes everybody's responsibility.

2.8 Quality award models

Regardless of variation in quality definitions and implications, international efforts were made to establish common models for quality management that would assure minimum performance requirements by organizations to give customers sufficient confidence that a product or service is actually complying with requirements mandated by competition and market dynamic (Oakland, 2000; Al-Ghanim, 2003). International quality model ISO 9000 series, established by the international organization for standardization has gained a wide spaced reputation for

improving quality levels and business performance. Besides, national quality models have been established in the form of quality prizes such as the Baklom Baldrige national quality award in the USA, the Deming prize in Japan, the European quality award in the European Union, King Abdullah if quality award in Jordan, and others (Al- Ghanim, 2003).

2.8.1 The four and three Cs of TQM- a new model for TQM

This new TQM model, based on all the excellent work done during the last century, provides a simple framework for excellent performance, covering all angles and aspects of an organization and its operation. Performance is achieved, using a business excellence approach, and by planning the involvement of people in the improvement of processes, which include (Oakland, 2000):

- Planning – the development and deployment of policies and strategies; setting up appropriate partnerships and resources; and designing in quality.

- Performance - establishing a performance measure framework- a ‘balanced scorecard’ for the organization; carrying out self- assessment, audits, reviews and benchmarking.

- Processes – understanding, management, design and redesign; quality management systems; continuous improvement.

- People- meaning the human resources; culture change; teamwork; communications; innovation and learning.

2.9 Previous studies

2.9.1 Palestinian studies

In 1997, Barghouthi and Lennock published a report entitled “ Health in Palestine: potential and challenges”, were they examine the health

situation in the West Bank and Gaza strip in the light of recent developments that have taken place following the Oslo agreement [9]. Another publication “Palestinian health: Towards a healthy development strategy in West Bank and Gaza strip” (Barhouthi, 1992) discusses priorities for future development and planning of the Palestinian health care system [10]. Furthermore, a study describing plans for health research, finance, legislation, insurance and other institutional aspects as well the current status of primary health care in Palestine and out-line plans for the various sectors was published by the PMH entitled “National Strategic Health Plan” (Palestinian Ministry of Health, 1999). Another report was published by the World Bank entitled “West Bank and Gaza medium term development strategy and public financing priorities for health sector”, recommends short and long strategies. The report recommended short and long strategies “to insure the financial sustainability of health sector while improving access to health care its efficiency and quality” (World Bank, 1997). In a further study “Palestinian health strategy: challenges ahead”, Abdeen approached a long- term national health policy (Abdeen, 1997).

WHO collaborating center in health manpower development in the West Bank” conducted a study that discussed staffing of the government health sector and proposed a strategy for its development (The World Bank, 1993). A review of health standards and services in the West Bank and Gaza Strip was carried out by Berizeit University Community Health Unit. The review tackled information concerning health status indicators and selected determinants of health (Birzeit University Community Health Unit, 1987). In Gaza Strip “Health Management Information System (HMIS): strategic plan”, presented potential challenges facing HMIS during implementation stages (Palestinian Ministry of Health, 1995).

Palestine Council of Health and Quality of Health Care Unit compared the situation in the area with that of similar economic status “The strategic plan for quality health care in Palestine". The report showed that Palestine invests more resources on health. The report summarized the accomplished so far on the national program in quality of health care (NPQHC) (Palestine Council of Health, 1994).

An assessment named “Health Management Training Needs” was conducted by Health Services Management Unit at Birzeit University, handled the needs for training on health management in hospitals (Palestinian Ministry of Health, 1996). Massoud, analyzed health outcome indicators in Palestine compared to other nations with similar economic status. The study proposes a solution in two pronged approach to improving quality (Massoud, 1995). Another study conducted by Massoud, reviewed TQM principles, methods of TQM and its possible application in health care system in Palestine (Massoud, 1993).

In Palestine, only two studies were conducted addressing ISO 9000 and TQM implementations (Hraish, 2000; Abdellatif, 2002). Harish study was a descriptive survey of organizations that implemented the ISO 9000 system. The survey provided a demographic description of companies and summarizing manager’s opinions on problems facing the implementation and achieved benefits. On the other hand, Abdellatif study was the first analytical study that assessed the extent of implementing TQM principles and tools in nongovernmental organizations in West Bank including banks, hospitals, insurance companies, and telecommunications. The study showed that gaps present to a substantial extent in the implementation of TQM principles. To overcome implementation difficulties, the study

presented a management model for implementing TQM principles and tools that would lead to the establishment of a new work culture where human resources should be the focus for development.

2.9.2 International studies

Several studies attempted to discover the possible links between strategic behavior and performance in hospital management. In 1992 the American Hospital Association (AHA) showed that 44% of surveyed hospitals used TQM to improve quality and cut costs (Burda, 1991). The quality measure will be a composite of service, length of stay (LOS), and efficiency (Cleverley and Harvey, 1992b). They also tried to differentiate between successful and unsuccessful strategies, according to profitability indicator (Cleverley and Harvey, 1992a). In a similar way using different strategic typology, Eastaugh (1992) claims that a hospital applying a defensive strategy- based on productivity improvement and specializing in a limited number of products-, have seen profits fall in recent years. Ginn *et al*., (1995) used a somewhat similar line of reasoning when testing various hypotheses to explore the link between the business strategies and financial structure in hospitals.

Meanwhile, using the industrial economic structure, behavior performance paradigm, Gilliard (1999) analyzed strategic groups; he explored links between conditions in the sector, strategies adopted by hospitals and the results obtained. Within this framework, Lament and Marlin (1993) investigate the relationship between porter's generic strategies (taking the lead in costs or differentiation), environmental conditions and results. Likewise, Cody *et al.*, (1995) assessed the impact of different functional business strategies on results, which they measure

using the ‘economic margin’ variable. Their conclusions point to the importance of environmental change, occupancy management, length of stay analysis and minimizing the need for hospital admissions.

Finally, studies by Lang land –Organ *et al.* (1996) and Gapenski *et al*., (1993) analyzed the determinants of hospital profitability; showing that it is more closely related to the strategies, practices and policies of hospital administrators than to market factors.

In studies of strategic management in hospitals, it is difficult to use financial indicators to measure performance, especially when hospitals in the public sector are under consideration. It is therefore worth exerting effort to use operational performance indicators (Venkatraman and Ramanujan, 1986; Kaplan and Norton, 1992). The output measures normally used to measure clinical activity in the health services are those that focus on intermediate processes. Such measures can be the length of stay, clinical procedures, number of visits, diagnostic checks, rehabilitation physiotherapy sessions, etc., which are easier to define.

2.9.3 Regional Studies

Several studies were conducted in various Arab countries that dealt with the impact of ISO 9000 and TQM implementation at various manufacturing and service sectors. Some of these studies addressed ISO 9000 implementation aspects at specific large firms, while others dealt with sectoral impact of ISO 9000 quality initiatives. For example, Ajluni (1999) conducted a study to determine behavior of financial performance in Jordanian public shareholding companies that were implementing ISO 9000 initiatives. He found a positive relationship between these two

dimensions. Tarawneh (2000) implemented a study for assessing the advantages of ISO 9000 at manufacturing firms in Jordan. He found a positive strong relationship between organizational aspects and the various clauses of the standards. Obaidat and Kurdi (1998) showed that quality levels at printing industrial firms in Jordan were still moderate, thus warranting the immediate attention to quality matters as a major business dimension. Hajj (1997) and Shajrawi (1996) conducted research studies at various Jordanian companies that implemented a form of ISO 9000. The research revealed that implementation of the quality system actually improved, with varying degrees, the performance of organizations in terms of lower production costs; higher employee morale; customer loyalty; revenues; and other related benefits. In the United Arab Emirates (UAE), Badri investigated the effect of quality management on firm performance using path analysis technique. He concluded that top management support is a primary force behind creating a supporting environment for successful implementation of quality practices (Ajluni, 1999). In Egypt, Farid examined the potential and impact of applying TQM principles to Egyptian garment and textile industries (Hajj Ali, 1998). In Saudi Arabia, Khalaf illustrated the effect of quality as a component of the excellence triode represented by quality, productivity and cost (Shajrawi, 1997). It is worth noting that none of the research conducted in the field of TQM and ISO 9000 in neighboring countries tried to like these to health care sectors.

Chapter Three

Methodology

3.1 Study area and sample

The study was conducted during the period January- May, 2004. It was implemented in all working hospitals in the city of Nablus (two public, two private for profit and two charitable). This study is an investigation to basic and principle section opinions, portrays patients currently utilizing services, the employees and chief executive officer of hospital facilities or, when that was not possible, the clinical director or chief of administration.

The patient questionnaire was conducted by face to face interviews. Therefore, questions needed to be exceptionally clear and easy to respond for this type of questionnaire to be successful. The researcher himself conducted the interview. For purpose of simplicity alphabetical numbers were used. Table 3.1 summarizes the basic characteristics of each hospital obtained from data that were collected.

Table 3.1 Basic characteristics of sample hospitals.

Hospital alphabetical number	Ownership	Number of Employee	Number of beds	Average of LOS	Occupancy rate
A	Private	85	70	3	45
B	Private	47	25	2	32.7
C	Charity	142	61	2.5	47
D	Charity	95	48	1.1	18.2
E	Public	225	94	2.2	63.2
F	Public	325	156	2.6	71.26

* A: Nablus specialty hospital; B: Al-Arabi specialty hospital; C: Al-Etihad hospital; D: St. Johns Hospital; E: Al-Watani hospital; F: Rafedia hospital

3.2 Ethical consideration

A formal letter**:** from the dean of graduate studies at An-Najah University was sent to each center requesting the director, or chief

executive manager of the hospital as applicable, to allow the researcher to conduct the study.

Explanatory form: every eligible manager of the hospitals was given a full explanation about research, including the purpose, nature of the study, importance of participation in addition to assurance of confidentiality of information and voluntary participation and was given total freedom to accept or reject participation in the research.

3.3 Framework of study methodology

This study was based on a quantitative statistical assessment of the impact of implementing quality management model principles on organizational effectiveness. It should be noticed here the influence the quality management system was investigated with respect to its underlying quality principles whose impact on performance measures were assessed. Based on this approach, the following methodology was implemented:

1- Determine a set of quality principles that reflect the face contents and interpretations of the quality management system clauses (i.e., causes).

2- Determine asset of business performance indicators that are directly linked to the selected quality principles (e.g., effects).

3- Formulate statistical hypotheses that will respond to the questions raised in this study.

4- Collect data and validate field data and normalization.

5- Use statistical tools to analyze data and test hypothesis.

6- According to results of analysis, key delivery processes, their related principle performance requirements and key measures.

7- Formulate and generalize results and accordingly develop recommendations for improved implementation of total quality management standard.

8- Development of a modified management model to Palestinian hospitals to better implementation of total quality management standard.

3.4 Model and variables of the study

According to the general framework, two sets of variables were defined of this purpose; independent or control variables, and dependent or response variables. The independent variables represented strategies, plans and actions taken by management that translated the implementation of basic quality principles and requirements of quality management system. Dependent variables were those reflecting the outcomes of implementing of quality principles and requirements the two sets are defined and explained in tables 3.2 and 3.3.

It should be noted that, on the hand, the selection of independent variables was guided the archived literature (Alexander, Preker, Aprin and Harding, 2003**;** Cartin, 1993; Perigord, 1990; Kannan, Tan and Ghosh, 1999). The clauses of the system, for example, include management commitment to clear quality strategy, leadership and employee involvement, patient's satisfaction, and measurement and analysis. The characteristics of dependent variables, namely, quality, employee satisfaction, delivery processes and productivity represented key performance indicator to measure hospital goals and hoped outcomes of model of the hospital management implementation.

Table 3.2 Model variables.

Independent variables: Quality management system	**Dependent variables: Hospital performance indicator**
I. Adopted strategy 1. Mission and quality objectives 2. Annual hospital planning	I. Employee satisfaction 1. Job suitability 2. Fellow workers and superiors 3. Pay and promotion 4. Satisfaction with hospital growth.
II. Patient satisfaction efforts 3. Patient focus and feed back 4. Responsiveness 5. Dependability(sustaining quality level	II. Delivery processes and level of performance (productivity level). 5. Time utilization 6. Appropriate service utilization 7. Accuracy
III. Continuous improvement 6. Planning for quality 7. Use of quality management tools. 8. Measurement and analysis 9. Reporting, communications and feed back.	III. Quality level 8. Number of patients' complaints. 9. Unplanned readmits and returns to emergency room or operation or any service (process non-conformities) 10.Volume of service rework.
IV. Leadership development 10. Unified goals 11. Extensive education/ training at all levels. 12. Reward and recognition tied to performance. 13. Employee participation in problem solving.	

Table 3.3 Explanation of model variables.

Variable	Explanations
Quality management principles	Such principles emphasize management of the entire hospital in such a way that it excels in all dimensions of its operations. It implies commitment to quality as a strategic dimension, patient focus and related efforts, leadership development and continuous improvement efforts (Alexander, Preker, Aprin and Harding, 2003). Quality starts at top management levels as a strategic dimension that is continuously reflected in a solid understanding of quality requirements and annual business plans. These quality principles call for the entire hospital to work in unity for the purpose of patient satisfaction in a dependable, responsive and sustainable manner. Continuous improvement mandates quality planning, use of measurements and analysis techniques. And established of proper reporting and communications tools (Cartin, 1993). Leadership development is critical to the evolution of a quality culture in the organization. This requires unified goals, employee training and participation, and reward and recognition (Alexander, Preker, Aprin and Harding, 2003).
Employee satisfaction	Defined as employees' and managers' satisfaction with fellow workers, jobs, superiors, their hospital compared with others, pay, progress in the hospital, and opportunities for advancement in the future (Alexander, Preker, Aprin and Harding, 2003).
Productivity level	Defined as assessment by employees and mangers of the efficiency of work done in the divisions or departments as well as the quality with which the work is done. Productivity is measured in terms of output production volume per unit time. Another indication for productivity used here is percent of time utilized of production resources including employee and equipment time (Perigord, 1990).
Quality level	Defined as assessment of the quality of work done in their hospitals according to the requirements set to meet patient needs and satisfaction; quality as conformance to specifications. Quality is measured in terms of volumes of service rework, scrap, process non- conformities, and number of patient complaints (Perigord, 1990).

Table 3.4 The four key delivery processes, their related principal performance requirements and key measures.

Process of Admit	**Key requirements**	**Key measures**
Admitting and registration	Timeliness	*Time to admit patients to the setting of care * Timeliness in admitting and registration rate on patient satisfaction survey questions
Assess		
Patient assessment	Timeliness	* Percentage of histories and physicals charted within 24 h. prior to surgery *Pain assessed at appropriate intervals, per hospital policy
Clinical laboratory and radiology services	Accuracy and timeliness	*Quality control results/repeat rates *Turnaround time *Response rate on medical staff satisfaction survey
Care delivery/treatment		
Provision of clinical care	Nurse responsiveness Pain management Successful clinical outcomes Pain management Successful clinical outcomes	*Response rate on patient satisfaction and medical staff survey questions *wait time for pain medications *Percentage congestive heart failure patients received medication instructions and weighing *Percentage ischemic heart patients discharged on proven therapies *Unplanned readmits and returns to emergency room or operating room *Mortality
Pharmacy/ medication use	Accuracy	*use of dangerous abbreviations in medication orders *Medication error rate or adverse drug events resulting from medication
Surgical services/anesthesia	Professional-skill, competence and communication	*Clear documentation of informed surgical and anesthesia consent * Preoperative mortality *Surgical site infection rates
Discharge		
Case management	Appropriate utilization	*Average length of stay *Payment denials *Unplanned readmits
Discharge from setting of care	Assistance , And clear directions	*Discharge instructions documented and provided to patient *Response rate on patient satisfaction survey

3.5 Survey instrument

The survey instrument adopted was tow questionnaires one for the patients whom utilizing the services and another for the employees and managers whom working at hospitals (see appendix D). The Patient's questionnaire has been developed by International Info-medics Corporation in cooperation with Consult Group Ltd. and Mohawk collage 1997. While, the employees and managers questionnaire was developed by researcher with respect to quality principles in literature. The questionnaires were written in Arabic language to be easily understood by providers. The two questionnaires designed on the basis of [Likert scale] which consisted a 5-point scale respondent were asked to rate their agreement to each statement on a scale of (1-5).

In employee a manager questionnaire, the 5-point scale system respondent responses ranging from “strongly agree” (5), “agree” (4), “neither agree nor disagree” (3), “disagree” (2) and “strongly disagree” (1). The employee and managers questionnaire is divided into two main sections, where the first part provided a general demographic hospital description such as hospital category, number of hospital beds, number of employees, and other aspects. The second part was dedicated to capturing hospital ‘responses to the dependent and independent variables stated above through a form containing 48 related questions representing categories of variables:

1- Customer focus, illustrated in items [11, 37, 38, 39, 40, 41, 42]

2-Total involvement illustrated in items [9, 15, 16, 17, 19, 20, 22, 25, 26, 27, 30].

3- Measurements techniques illustrated in items [1, 3, 5, 6, 7, 10, 23, 24, 25, 29, 32, 33, 34, 36, 41, 42, 43, 45, 48].

4-Systematic supports illustrated in items [2, 3, 4, 5, 6, 7, 8, 9, 10, 16, 18, 21, 22, 25, 28, 33, 34, 35, 36, 44, 46, 47, 48].

5- Continuous improvement illustrated in items [14, 13, 15, 31, 32, 33, 34, 38, 43, 44, 45].

6- Management system illustrated in items [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 18, 30, 29].

7- Leadership illustrated in items [16, 17, 22, 23, 24, 28, 30].

8- Perception for quality illustrated in items [10, 11, 13, 21, 25, 35, 36, 37, 38, 39, 40, 41, 42, 45].

9- Training and developments illustrated in items [14, 15, 16, 31, 32, 33, 34, 43, 44, 45].

10- Employee satisfaction illustrated in items [17, 18, 19, 20, 22, 26, 30].

11- Incentives and empowerment illustrated in items [27, 28, 29].

12- Facilities equipment and communication illustrated in items [21, 38, 43, 44, 45].

13- Safety measurements illustrated in items [48].

In patient questionnaire, the 5-point scale system represented responses ranging from “very high” (5), “through high” (4), ‘moderate’ (3), ‘low’ (3), and finally ‘very low’ (1).

The patient questionnaire is divided into three main sections, where the first part provided a general demographic firm description. The second and the third parts were dedicated capturing hospitals' responses to four key delivery processes area Table (3.4), through a form containing 38 related questions representing categories of variables:-

1- Patient satisfaction illustrated in items [32, 34, 35, 36, 36, 37, 38].

2- Delivery processes were categorized into:-

a- Admission and registration process illustrated in items [5, 6, 7].

b- Information and willingness of nurses to answers questions illustrated in items [13, 14].

c- Medical treatment from (nursing) illustrated in items [10, 11, 12, 15, 19].

d- Coordination and cooperation from medical staff illustrated in items [7, 21, 22].

e- Medication availability and accuracy using medication which are illustrated in items [16, 17, 18].

f- Services provide (cleaning and food) illustrated in items [25, 27].

j- Laboratory and radiology services illustrated in items [8].

h- Appearance and behavioral skills from all staff illustrated in items [8, 9, 19, 20, 30].

i- Facilities and equipments illustrated in items [28, 29].

g- Contact physician illustrated in items [23, 24].

3.6 Pilot study

Pilot testing was conducted before used for actual data collection, the two questionnaires was tested and validated to assure understanding and meanings of presented concepts, clarity of statements, and adequacy of the representation of the basic variable categories. Specifically, readability and comprehension were key concerns given that many often questionnaire respondents (patients) would have low levels of education. Such verification process was made through the advisor who had research background, three chief executive managers of hospitals include in this study and quality management expert from ministry of health.

3.7 Questionnaire reliability

The reliability of the scale in this study was estimated using conbach's alpha formula to determine mean interim correlation where a value of 0.7 or more represents a good criterion for scale reliability (Motwani, Kumar and Cheng, 1996). The questionnaires reliability was at $\alpha = 0.89$.

3.8 Analysis tools

Once questionnaires were completed, data were entered onto the SPSS advanced statistics package was utilized for descriptive and multivariate analysis.

3.8.1 Used statistical analysis

The various statistical analysis tools used in this research were as follows:

1- Cronbach alpha test to examine the reliability of the data.

2- The t-test to examine the validity of the formulated hypothesis.

3- One way ANOVA to examine the validity of the formulated hypothesis.

4- Correlation coefficient procedure to determine the strength of the relationship among variables, in the hypothesis.

5- Multiple linear regressions to examine the significance of the correlation coefficients between quality principles and health care organizational effectiveness.

3.9 Data collection

From the 500 employees and manager questionnaires that were distributed, 351 valid replies were returned, that is a reply rate of 70%, which is acceptable with this method of data collection. Of the 351 valid replies, 48.7% were from public hospitals, 22.8% from private hospitals, and 28.5% were from charity hospitals. In terms of size, 20% came form small, 20 to 50 bed facilities, 52.8% from intermediate size, 50-100 bed hospitals, and 27.4% came from large hospitals with over 100 beds. From 351 employee and manager questionnaires, 125 valid replies came from manager of response rate 35.6% and 226 valid replies from general employees of response rate 64.4%. From 150 patient's questionnaires that were distributed, 108 valid replies were returned, that is a reply rate 72%. Of the 108 valid replies, 54.6% from public hospitals, 22.2 from private for profit hospitals and 23.1% from charity hospitals.

Table 3.5 Questionnaires valid replies percentage.

Questionnaire groups	**Public hospitals**	**Private non profit**	**Private for profit**
Managers and employees	**N0. (%)**	**N0. (%)**	**N0. (%)**
	171(48.7)	100 (28.5) 28.5	22.8
Patients	**N0. (%)**	**N0. (%)**	**N0. (%)**
	59 (54.6)	24 (23.1)	25 (22.2)

From descriptive statistics of employees and manager questionnaire presented in table 6, approximately 52.1% of the people were males. The majority of worker at hospitals had advanced degree such as diploma 43.9% and bachelor 40.5%. On average (estimated) questionnaire respondent was more than 10 years experience, which reflects the high percentage of experience workers at hospitals.

Table 3.6 Descriptive statistics of the employee and manger population N= 351.

Study variables	**Percentage**
Gender	
Male	52.1
Female	47.39
Education	
High school	4.3
Diploma	43.9
Bachelor (B.A)	40.5
Master	11.4
Years of experience	
1-4 years	24.8
5-9 years	29.1
More than 10 years	46.2

From descriptive statistics of patient population, approximately 56.5% of people questionnaire were females. The majority of questionnaire respondents did not completed a high school 66.7%. Approximately 48.1%

of respondents reported their health status when they admitted to hospital to be poor, and on average (estimated) length of stay at hospital was 2 days in percentage 56.5%. Approximately 50.9% had been referred by a consultant.

Table 3.7 Descriptive statistics of the patient's population.

Study variables	**Percentage**
Gender	
Male	435
Female	56.5
Education	
High school or less	66.7
Diploma	12
Bachelor degree	20.4
Master degree	0.9
Years of experience	
1-4 years	24.8
5-9 years	29.1
More than 10 years	46.2
Length of stay (LOS)	
1-3 days	56.5
3-5 days	18.5
5-7 days	12
More than week	13
Place of living	
City	52.8
Village	32.4
Camp	14.8
Self perceived health on admission	
Poor	48.1
Fair	17.6
Good	25
Very good	9
Way admitted to hospital	
- Patient registration	3.7
- Emergency room	38.9
- Transferred from another facility	3.7
- Refers by a consultant	50.9
- Other	2.8

Chapter Four

Results and Discussion

4.1 Hypothesis testing

4.1.1 Manager and employee hypotheses testing

The study tested the following hypothesis and all hypotheses were tested at (α = 0.05):

Hypothesis 1

There is no significant correlation at α = 0.05, between TQM and the following variables in the hospitals of Nablus: [(x1) customer focus; (x2) total involvement to hospital; (x3) counter measurement methods; (x4) systematic support; (x5) continuous improvement, (x6) safety measurements. To support the hypothesis, we applied the linear multiple regression model, with TQM, measured as average of total scores in the questionnaire of officials, as depended variable, and the six variables x1,..x6, given above as independent variables. The resulting equation was:

TQM = 0.09954 + 0.124 × 1 + 0.187 x 2 + 0.207 x 3 + 0.353 x 4 + 0.103 x 5 + 0.001876 x 6

With the exception of the safety measurement variable (x6), all the other variables were with statistically significant values (P = 0.000), which is less than 0.05; hence the hypothesis is rejected. A possible explanation for the lack of significance regarding safety measure could be the use limited number of questions in the study concerning this sector.

Applying step-wise multiple regression analysis on the above tested variables, the following equation was obtained:

TQM =0.098 + 0.125 × 1 + 0.189 × 2 + 0.207 × 3 + 0.355 × 4 +0.103 ×5.

One–way ANOVA test also supported the findings on significant levels ($\boldsymbol{P}$ = 0.000) with an R square value of 0.99. Such findings explain almost completely the variance of the TQM values, and the fact that the correlation is very high.

Hypothesis 2

There is no significant correlation at $\boldsymbol{\alpha}$ = 0.05 between TQM and the following variables in Al-Watani and Rafidia Hospitals: (x1, customer focuses; x2, total involvement to hospital; x3, counter measurement methods; x4, systematic support; x5, continuous improvement, x6, safety measurements). To support the hypothesis, we applied the linear multiple regression model, with TQM measured by using the average of total scores in the questionnaire in both hospitals. The resulting equation was:

TQM = 0.0832 + 0.125×1 + 0.189 x 2 + 0.215 x 3 + 0.370 x 4 + 0.08437 x 5 - 0.00323 x 6

With the exception of the safety measurement (x6), all the other variables showed significantly different values ($\boldsymbol{P}$ = 0.000), which is less than 0.05; hence the above hypothesis was rejected.

Applying step-wise multiple regression analysis to the significant independent variables, the following equation was obtained:

TQM = 0.08624 + 0.124 × 1 + 0.189 × 2 + 0.366 × 4 + 0.08398 × 5

One–way ANOVA supports the above conclusion with significance level of ($\boldsymbol{P}$ = 0.000) and an R square = 0.99 which explains almost completely the variance of the TQM values, and the fact that the correlation was very high.

Hypotheses 3

There is no significant correlation between management system at α = 0.05 and the following variables in the hospitals of Nablus: x1, training and development; x2, perception for quality; x3,employee satisfaction; x4, leadership; x5, belonging to hospital; x6, safety measurements; x7, equipment maintenance and x8, facilities, equipments and communications.

To support the hypothesis, we applied the linear multiple regression model, with management system (MS) as a dependent variable and the other 8 variables x1,..x8 as independent variables. The resulting equation was: MS = 0.245 + 0.243 x 1 + 0.403 x 2 + 0.229 x 3 + 0.119 x 4 + 0.0984 x 5 + 0.0378 x 6 + 0.0132 x 7 – 0.213 x 8

Variables x1, x2, x3, x5 and x8 were with significant levels (0.000, 0.000, 0.000, 0.035, and 0.001, respectively), which means that they have significant correlation with MS. (we reject the hypothesis, and conclude that, there is significant correlation, in the significant level 0.05, between management system in the hospitals of Nablus and variables: training and development, perception for quality, employee satisfaction, belonging to hospital and facilities. One-way ANOVA test supports the conclusion with significance level 0.000; and also R square = 0.445, which measures the explanation of the variables to variance in Management System.

Hypotheses 4

There are no statistically significant differences at **α** = 0.05 between assessment of the officials and the services offered by Al-Watani and Rafidia hospitals due to types of offered service.

H0: M1 = M2 = M3 = M4 = M5= M6 / H1: H0 is not true.

In order to support the hypothesis, we applied One- way ANOVA test to the average scores of the items of the questionnaire of the officials, distributed among the different categories of services, in the two hospitals; the results were presented in table 4.1.

Table 4.1 One-way ANOVA test the study the effect of the variable of service on assessment of level of services offered by hospitals.

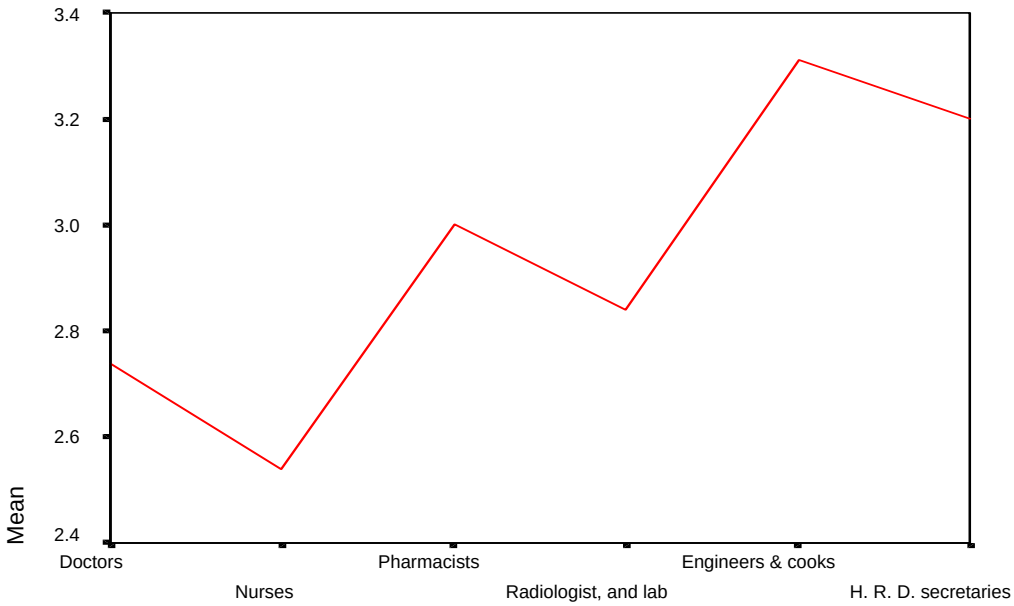
	Sum of squares	**Df**	**Mean square**	**F**	***P***
Between groups	9.031	5	1.806	5.148	0.000
Within groups	57.894	165	0.351		
Total	66.926	170			

From the table 8, the observed ***P*** value of 0.000 is a significant value for the differences; hence, the hypothesis was rejected. Since the hypothesis was rejected, Scheffe's test was used to determine which differences between means contributed to rejection of the hypothesis. The means of different categories are given in table 4.2.

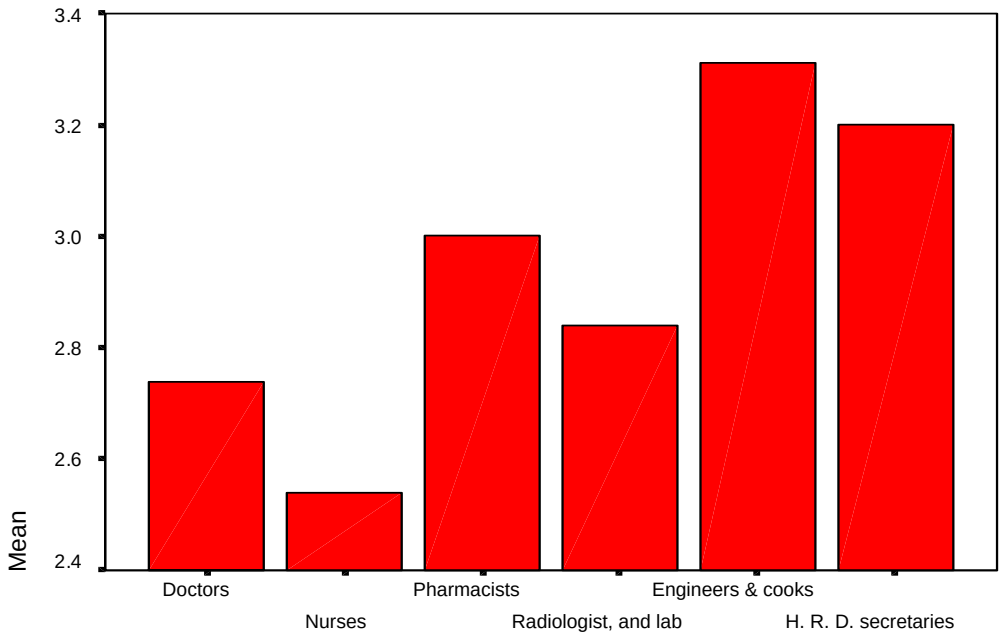
Table 4.2 Means of different categories in tow hospitals according to level of services.

Services	**N**	**Mean**
Doctors	33	2.7424
Nurses	87	2.5398
Pharmacists	13	3.0016
Radiologist, and liberationists	19	2.8388
Engineers & cooks	2	3.3125
H. R. D. secretaries and accountants	18	3.1968
Total	172	2.7243

The results of Scheffe' test showed that the means differences were significant at the 0.05 level for both doctors and nurses.



Graph 4.1 Scheffe's mean of different categories in public Hospitals.



Graph 4.2 Mean of different categories in public hospitals.

Hypotheses 5

There are no statistically significant differences at α = 0.05, assessment of the officials, between services offered by Al- Watani and Rafidia hospitals due to the type of offered service.

H0: M1 = M2 =M3 = M4 / `H1: No is not true.

In order to support of the hypotheses, One- way ANOVA test was used based on the average scores of the items of the questionnaire of the officials, the results are shown in table 4.3.

Table 4.3 ANOVA test the study the effect of academic qualification on assessment of level of services offered by hospitals.

	Sum of squares	**Df**	**Mean square**	**F**	***P***
Between Groups	7.173	3	2.391	6.481	0.000
Within Groups	128.007	347	0.369		
Total	135.180	350			

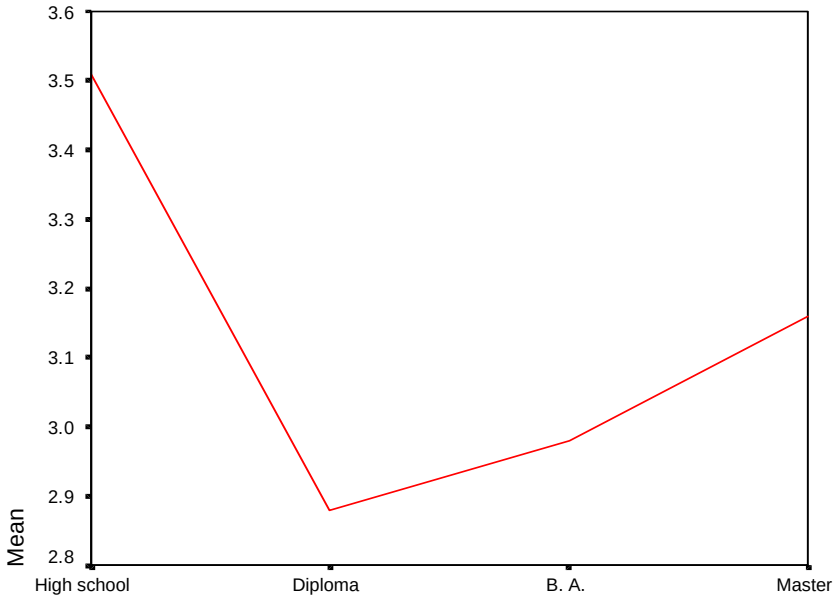
Observed ***P*** value of 0.000 is an evident of significant differences, thus, the hypothesis was rejected. Scheffe's test was used to determine which differences between means contributed to rejection of the hypothesis. The means of different categories are given in table 4.4.

Table 4.4 Means of academic qualification groups.

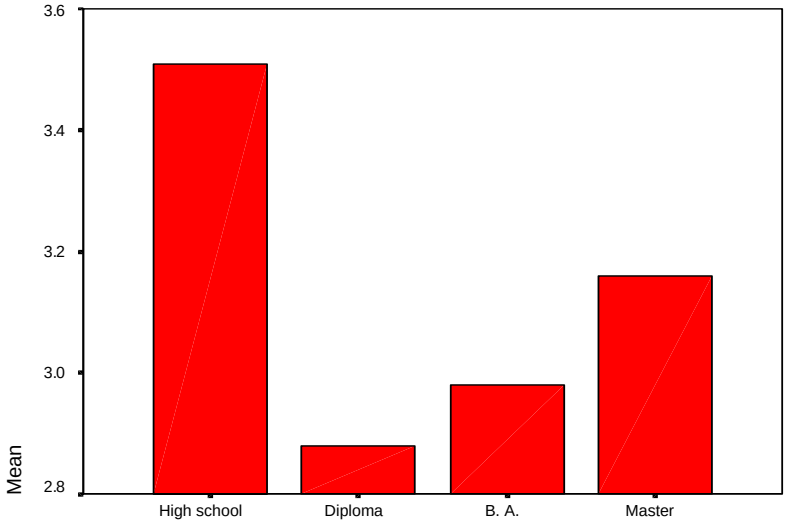
Group	**N**	**Mean**
High school	15	3.5083
Diploma	154	2.8773
B. A.	142	2.9770
Master	40	3.1646
Total	351	2.9773

The results of Scheffe's test showed that the means differences were significant at the 0.05 level for: High school and diploma groups, and high school and B. A. groups.

From the table of the means, it is clear that the highest mean was that of the high school group and the lower mean was that of the diploma group.



Graph 4.3 Scheffe's means of academic qualification groups.



Graph 4.4 Means of academic qualification among studied groups.

Hypothesis 6

There are no statistically significant differences, in the assessment of the officials, at **α** = 0.05 between level of services offered by hospitals in Nablus and years of experience.

H0: M1 = M2 = M3 / H1: No is not true.

In order support the hypothesis, One- way ANOVA test was conducted using the average scores of the items of the questionnaire of the officials, the results are shown in table 4.5.

Table 4.5 One way ANOVA test the study the effect of years of experience on assessment of level of services offered by hospitals.

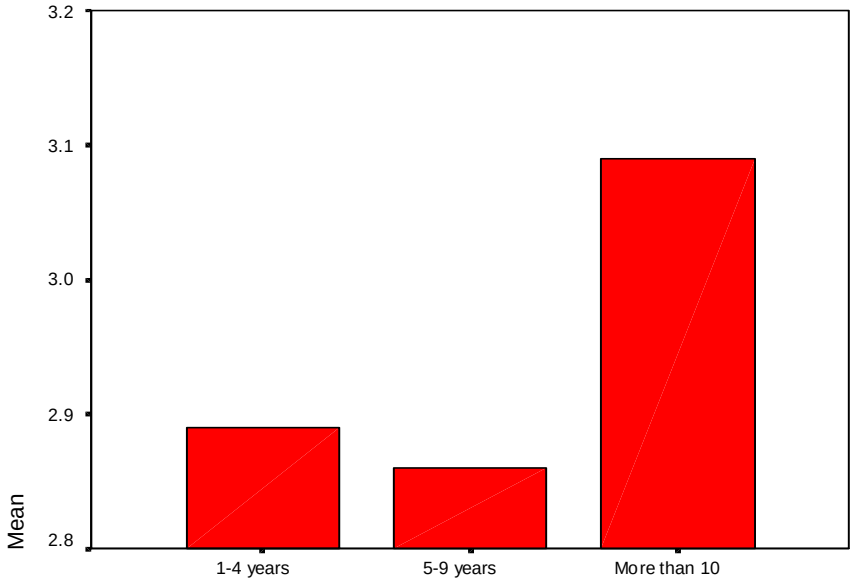
	Sum of squares	**Df**	**Mean square**	**F**	***P***
Between Groups	4.164	2	2.082	5.530	0.004
Within Groups	131.016	348	0.376		
Total	135.180	350			

The obtained ***P*** value of 0.004 indicates a significant differences, thus the hypothesis was rejected. Since the hypothesis was rejected, we apply Scheffe's test. To determine which differences between means contributed to rejection of the hypothesis. The means of different categories are given in table 4.6.

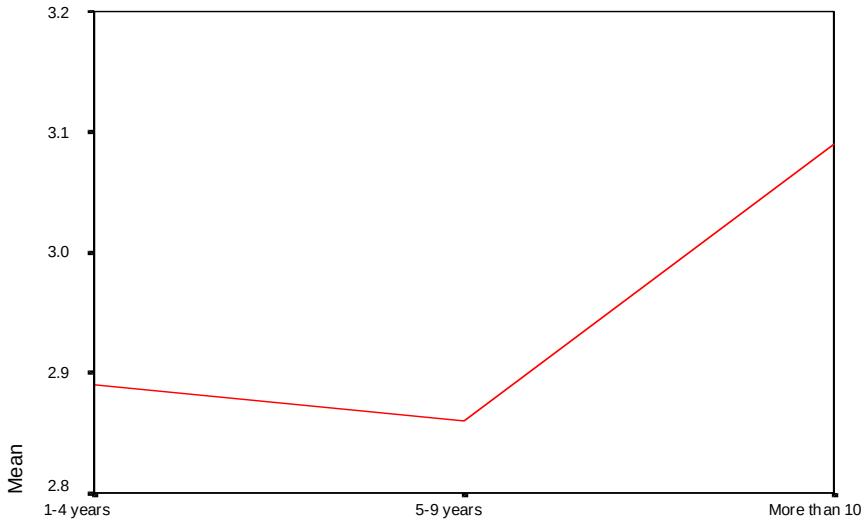
Table 4.6 Means of different years of experience.

Group	**N**	**Mean**
1-4 years	87	2.8946
5-9 years	102	2.8621
More than 10	162	3.0943
Total	351	2.9773

The result of Scheffe's test showed that the means of differences were significant at **α**= 0.05 level for the 5–9 years group of years of experience and more than 10 years group. From the table of the means, it is clear that the highest mean was that of the more than 10 group, and the lowest mean was that of the 5 – 9 years group.



Graph 4.5 Mean of different categories years of experience of professionals on assessment level of services offered by hospitals.



Graph 4.6 Scheffe's of the same test.

Hypothesis 7

There are no statistically significant differences, in the significant level 0.05, in the assessment of the officials, to the level of services offered by hospitals in Nablus, due to gender variable. In order to support the hypothesis, we applied the independent t- test to the average scores of the questionnaire of the officials, the results are shown in table 4.7.

Table 4.7 T- test to study the effect of official's gender on the assessment of level of services offered by hospitals.

Gender	N	Mean	Std. Deviation	T	*P*	Df
Male	183	2.9835	0.6474	0.194	0.846	349
Female	167	2.9706	0.5938			

From the table 4.7, we notice that the value of T is 0.194 with degrees of freedom 349, which corresponds to two- tailed significance of 0.846 which is greater than 0.05; hence we accept the hypothesis. In fact the means of the males and females i.e. 2.98 and 2.97 are almost identical, which means that there are no significant differences between them.

Hypothesis 8

There are no statistically significant differences at $\alpha = 0.05$, in the assessment of the officials, to the level of services offered by Rafidia and Al-Watani hospitals.

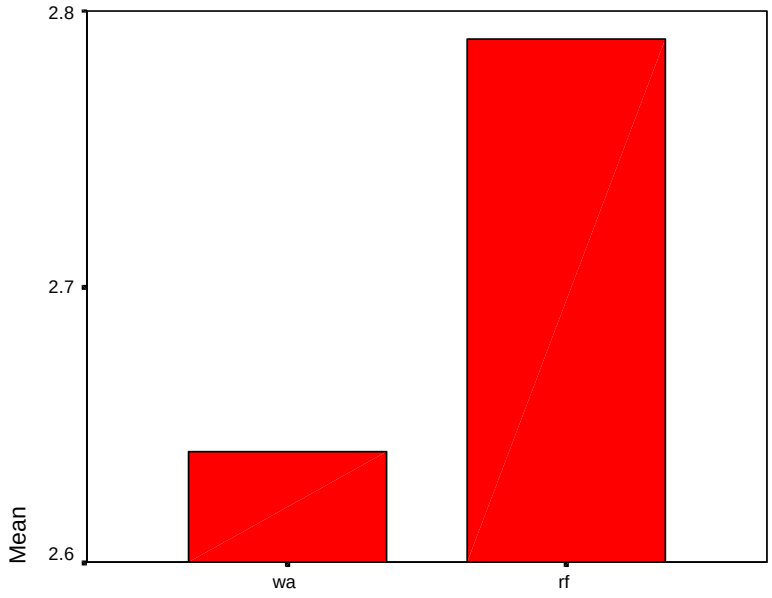
H0: M1 – M2 = 0 / H1: M1 – M2 = 0

In order to support the hypothesis, we applied the independent t- test to the average scores of the items of the questionnaire of the officials, the results are shown in table 4.8.

Table 4.8 T- test for the assessment of the level of services offered by (Rafidia, Al-Watani).

Hospital Name	N	Mean	Std. Deviation	df	T	*P*
Al-Watani	76	2.6362	0.6259	169	-1.931	0.105
Rafidia	95	2.7930	0.6232			

From the data presented in table 4.8, we notice that the value of t is – 1.931, with degrees of freedom 169, which corresponds to two- tailed significance of 0.105 which is greater than 0.05, hence, we accept the hypothesis. In fact, the means of the scores for the two hospitals are 2.64 and 2.80 which are not far one from the other; both are relatively low.



Graph 4.7 Mean average of level of services delivered from Rafidia hospital and Al-Watani hospital.

4.1.2 Patient hypothesis testing

Hypothesis 9

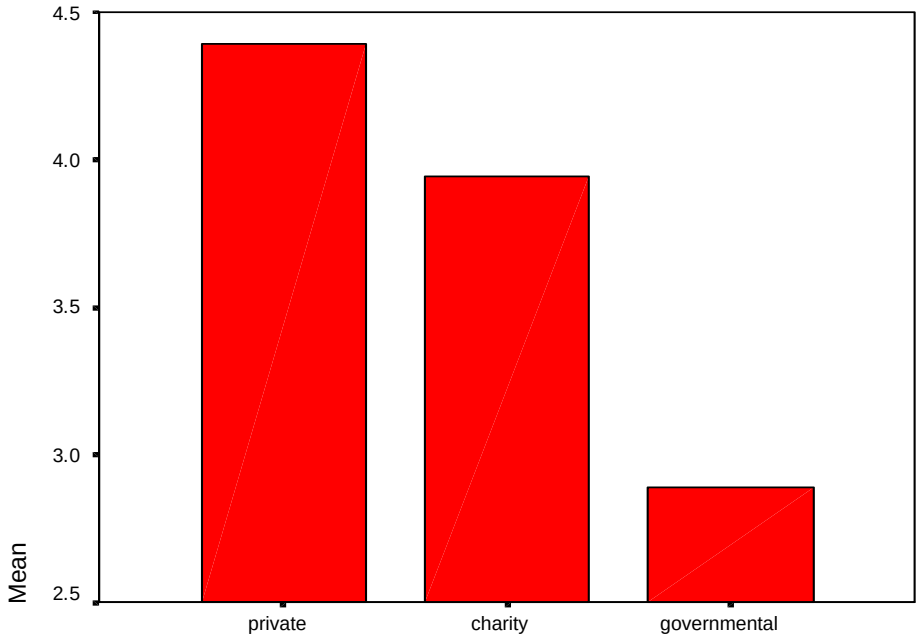
There are no statistically significant differences at $\alpha = 0.05$ between the level of services offered by hospitals and the assessment of patient, due to sector variable (governmental, private, or charitable).

In order to support the hypothesis, we applied One-Way ANOVA Test to both the average of all services (items 5-31) and to overall satisfaction level of patients (items 32- 38). The results are shown in table 4.9.

Table 4.9 One-way ANOVA test for effect of the sector of hospitals on the assessment of the level of services.

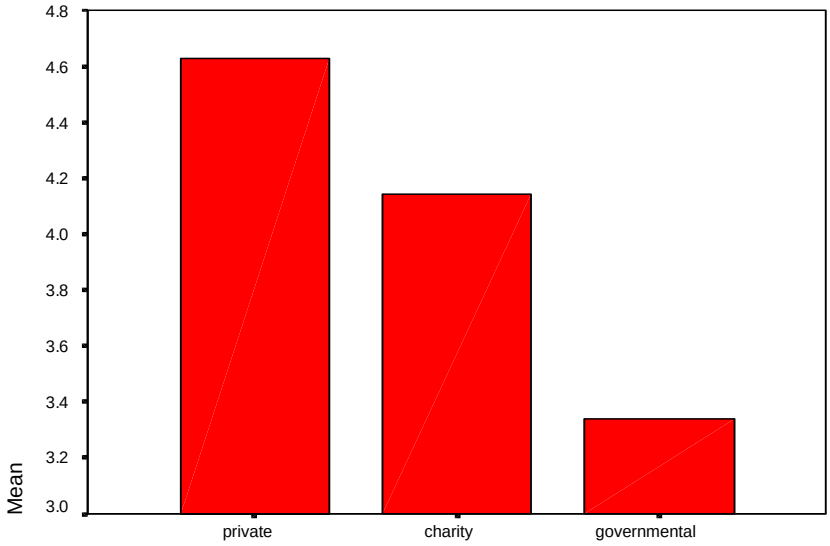
		Sum squares	**Df**	**Mean square**	**F**	***P***
Patients Satisfaction Q32-Q38	Between Groups	32.133	2	16.067	30.213	0.000
	Within Groups	55.837	105	0.532		
	Total	87.970	107			
Arrange of Q5-Q31 items "Care delivery Processes"	Between Groups	46.021	2	23.011	112.274	0.000
	Within Groups	21.520	105	0.205		
	Total	67.541	107			

In both cases the significance level is 0.000, which is much smaller the significance level given in the hypothesis i. e., 0.05; hence, we reject the hypothesis. The average scores of items (5-31) for the different sectors of hospitals, in descending order, are as follows: private hospitals (4.3981), charity hospitals (3.9467), and governmental hospitals (2.8927).



Graph 4.8 Mean average scores of delivery care processes for the different sectors of hospitals

The average scores of items (32-38) patient satisfaction for the different sectors of hospitals, in descending order, are as follows: private hospitals (4.6369), charity hospitals (4.1429), and governmental hospitals (3.3414).



Graphs 4.9 Mean of patient satisfaction form different sectors of hospitals.

Since the hypothesis was rejected, we apply Scheffe's test, to determine which differences between means contributed to rejection of the hypothesis. The means of different categories are given in table 4.10.

Table 4.10 Means of level of services of different sector.

Sector	N	Mean Delivery care processes Q5 –Q 31	Mean Overall satisfaction Q32-Q38
Government Hospital	59	2.8927	3.3414
Private Hospital	24	4.3981	4.6369
Charity Hospital	25	3.9467	4.1429
Total	108	3.4712	3.8148

The results of Scheffe's test showed that the means differences were significant at the 0.05 level for:

a- Patient satisfaction (Q32-Q32)

Government hospital-private hospitals and governmental-charity hospitals.

b- Delivery Care Processes (Q 5 – Q 31 items)

All pairs of sectors.

Hypothesis 10

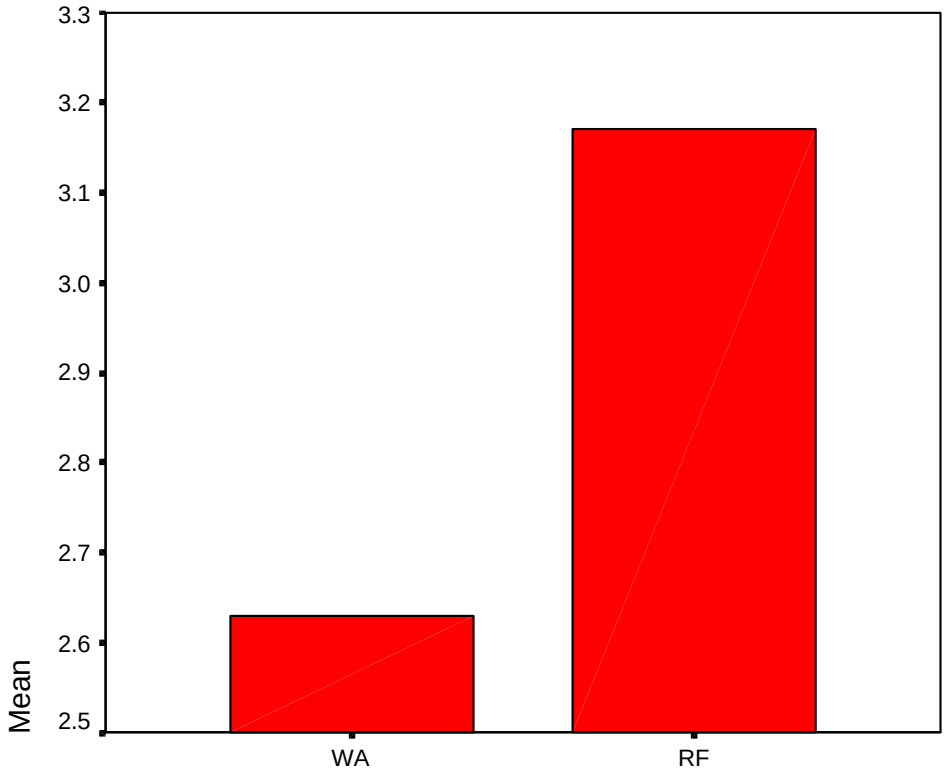
There are no statistically significant differences at α =0.05, in the assessment of patient, the level of all services, offered by Al-Watani and Rafidia hospitals in Nablus. In order to support the hypothesis, we applied t- test to the average of all services (items 5-31) in both hospitals. The results are given in table 4.11.

Table 4.11 T- test for comparison of services level at Al- Watani and Rafidia hospitals.

	N	Mean	SD.	T	df	*P*
Al-Watani	31	2.6344	0.5019	- 4.829	97	.000
Rafidia	28	3.1786	0.3383			

Data presented in table 4.11 showed a statistically significant value ***P*** = 0.000**,** thus, the hypothesis was rejected.

Comparing the means, it was found that the mean of scores for Rafidia were 3.1786, and for Al-Watani was 2.6344. Differences were in favor of Rafidia hospital. Such variations might be partially explained by the fact that Rafidia hospital is applying TQM standards in certain departments and it is the only hospital using such system.



Graph 4.10 Compare mean level of services between Rafidia and Al-Watani hospitals.

Hypothesis 11

There are no statistically significant differences at $\alpha = 0.05$, in the assessment of patient, between the level of services offered by the various hospitals in Nablus. In order to support the hypothesis, we applied One-Way ANOVA test to both the average of all services (items 5-31) and to the overall satisfaction level of patients (items 32-38). The results are shown in table 4.12.

Table 4.12 ANOVA test for effect of individual hospital on the assessment of the level of services.

		Sum squares	**Df**	**Mean square**	**F**	***P* value**
Patients Satisfaction	Between Groups	47.518	5	9.504	23.963	.000
	Within Groups	40,452	102	0.397		
	Total	87.970	107			
"Delivery Care Processes" Arrange of Q5-Q31 items	Between Groups	50.792	5	10.158	61.864	0.000
	Within Groups	16.749	102	0.164		
	Total	67.541	107			

In both cases the significance levels were 0.000 indicating statistically significant differences, hence the hypothesis was rejected. Since the hypothesis was rejected, we apply Scheffe's test, to determine which differences between means contributed to rejection of the hypothesis. The means of different categories are given in table 4.13.

Table 4.13 Means of levels of services of hospitals.

	N	Mean delivery care processes	Mean patient satisfaction
A- Private hospital	15	4.4642	4.6667
B- Private hospital	9	4.2881	4.5873
C- Charity hospital	15	3.8667	4.1714
D- Charity hospital	10	4.0667	4.1000
E-Public-Al-Watani Hospital	31	2.6344	2.8571
F-Public-Rafidia Hospital	28	3.1786	3.8776
Total	108	3.4712	3.8148

The results of Scheffe's test showed that the means differences were significant at $\alpha = 0.05$ as shown in table 4.13. The differences were with significant values when comparing all studies sectors and this was found for both total delivery care and patient satisfaction.

Hypothesis 12

There are no statistically significant differences at $\alpha = 0.05$, in the assessment of patients, between the level of offered services, due to sector and academic qualifications of the patient variables.

In order to support the hypothesis, we applied One-Way ANOVA Test to both the average of all services (items 5-31) and to the overall satisfaction level of patients (items 32- 38). The results are shown in table 4.14.

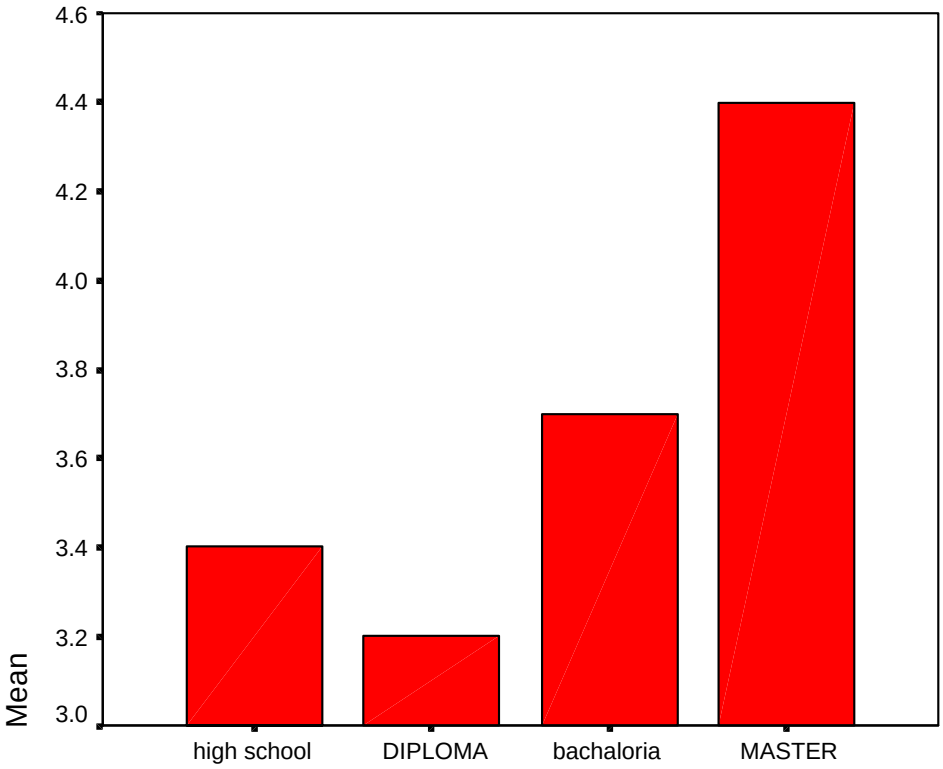
Table 4.14 ANOVA test for effect of academic qualification of patient on assessing of the level of services in hospital.

		Sum squares	**DF**	**Mean square**	**F**	**Sig**
Patients Satisfaction Items Q32-Q38	Between Groups	1.693	3	0.564	.680	0.586
	Within Groups	86.277	4	0.830		
	Total	87.970	107			
Total Delivery Care Processes " Q5-Q31 items"	Between Groups	2.713	3	0.904	1.451	0.232
	Within Groups	64.828	104	0.623		
	Total	67.541	107			

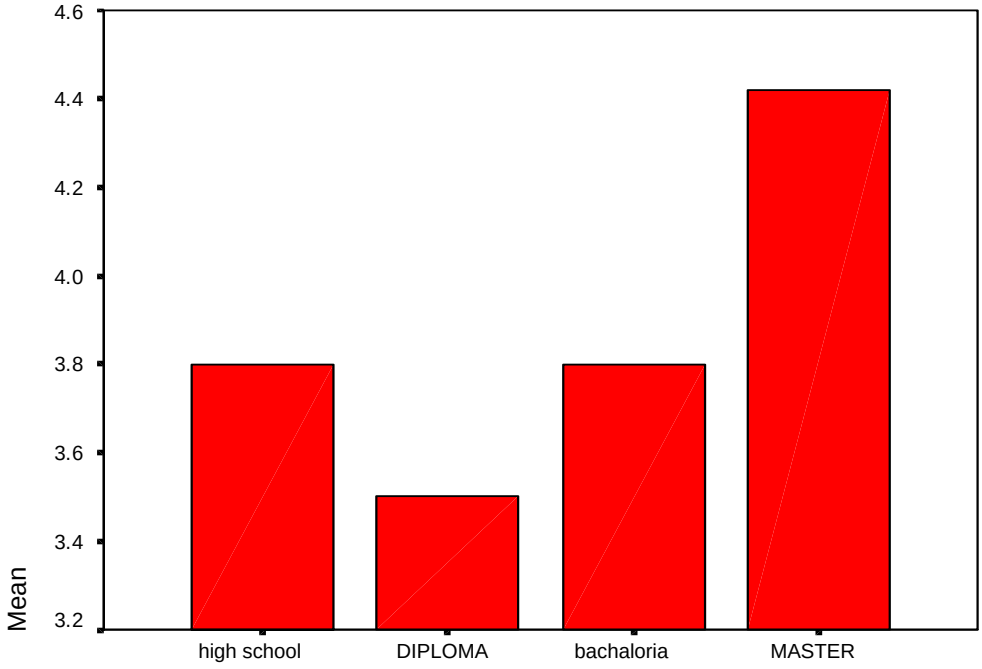
In both cases the significance level (0.232, 0.586) is greater than the value given in the hypothesis i. e., 0.05; hence, the hypothesis was accepted.

Table 4.15 Mean average of services according to academic qualification of the patient.

	Academic qualification	N	Mean
Total Delivery Care Processes "Average / Q5 to Q31"	High school or Less	72	3.4182
	Diploma	13	3.2934
	Bachelor(B.A)	22	3.7071
	Master Degree	1	4.4074
	Total	108	3.4712
Patient over all satisfaction (Q32-Q38)	High school or Less	72	3.8373
	Diploma	13	3.5165
	Bachelor(B.A)	22	3.8896
	Master Degree	1	4.4286
	Total	108	3.8148



Graph 4.11 Mean total average of delivery care processes according to patient academic qualification.



Graph 4.12 Mean of patient satisfaction according to patient academic qualification.

Hypothesis 13

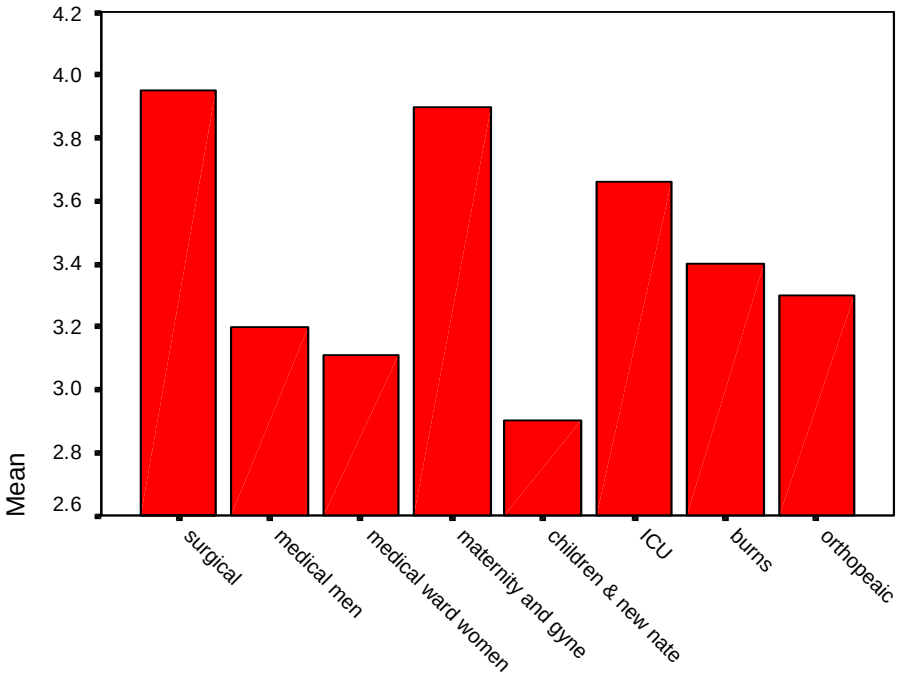
There are no statistically significant differences, in the significant level 0.05, in the assessment of patients, the level of delivery care processes, offered by different departments of hospitals in Nablus.

In order to support the hypothesis, we applied one-way ANOVA test to both the average of all services (items 5-31) and to the overall satisfaction level of patients (items 32- 38). The results are shown in table 4.16.

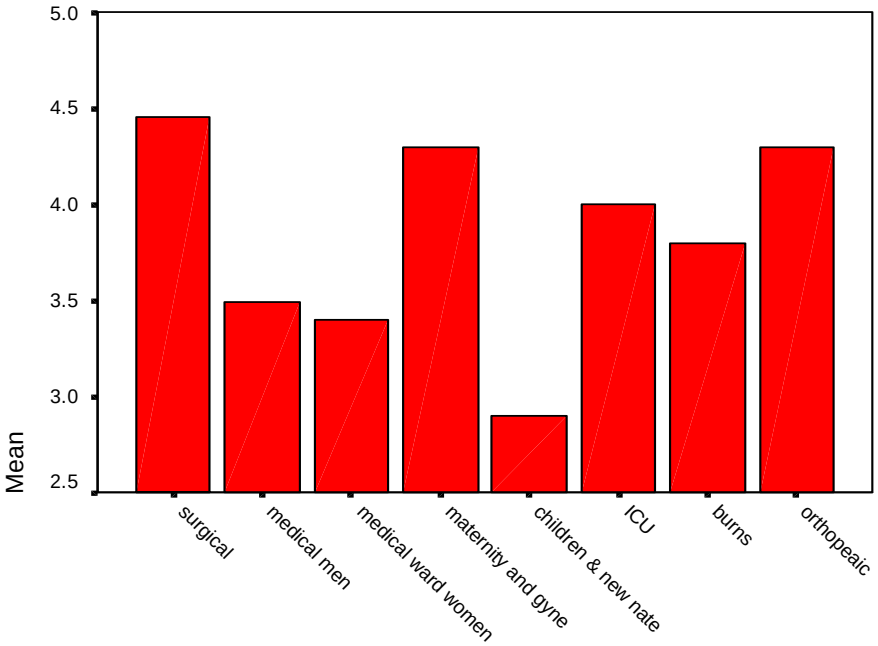
Table 4.16 ANOVA test for effect of sections of hospitals on the assessment of the level of services.

		Sum squares	**DF**	**Mean square**	**F**	***P***
Patients Satisfaction (Q32-Q38)	Between Groups	29.795	7	4.256	7.316	0.000
	Within Groups	58.175	100	0.582		
	Total	87.970	107			
Total delivery Care Process (Q5-Q31)	Between Groups	16.416	7	2.345	4.587	0.000
	Within Groups	51.126	100	0.511		
	Total	67.541	107			

In both cases ***P*** value was significant (0.000), hence the hypothesis was rejected.



Graph 4.13 Mean delivery care processes in different departments of Nablus Hospitals**.**



Graph 4.14 Mean of patient satisfaction according to level of services of departments in all Nablus hospitals.

Since the hypothesis was rejected, we apply Scheffe's test, to determine, which differences between means contributed to rejection of the hypothesis. The means of different categories are shown in table 4.17.

Table 4.17 Means of level of services of Hospital departments in all hospitals

Hospital Departments	N	Means Delivery Care Processes (Q5 – Q31)	Mean Patient satisfaction (Q32-Q38)
Surgical	24	3.9537	4.4524
Medical ward (Men)	24	3.2454	3.4940
Medical ward (Women)	23	3.1176	3.4037
Maternity and Gyna.	17	3.9237	4.3109
Children & neonate	10	2.9222	2.9000
ICU	3	3.6667	4.0000
Burns	3	3.4198	3.8095
Orthopedic	4	3.3056	4.3214
Total	108	3.4712	3.8148

This results of the test showed that the means of differences were significant at $\alpha = 0.05$ for:

a- Delivery care processes (Q5 – Q31 items)

Surgical and Medical word (women) group.

b- Overall satisfaction in tested departments (Q32-Q38)

Hypothesis 14

There is no significant relationship at $\alpha = 0.05$, between patients overall satisfaction and their assessment of the level of services offered in the hospitals of Nablus.

In order to support the hypothesis, we applied the correlation coefficient test between the scores of total delivery care processes items (32-38) representing patients overall satisfaction and items (5-31) presenting assessment of level of offered services.

Correlation coefficient = 0.860, for N = 108, ***P*** = 0.000.

Since the significance level (***P*** = 0.000) was statistically significant, the hypothesis was rejected.

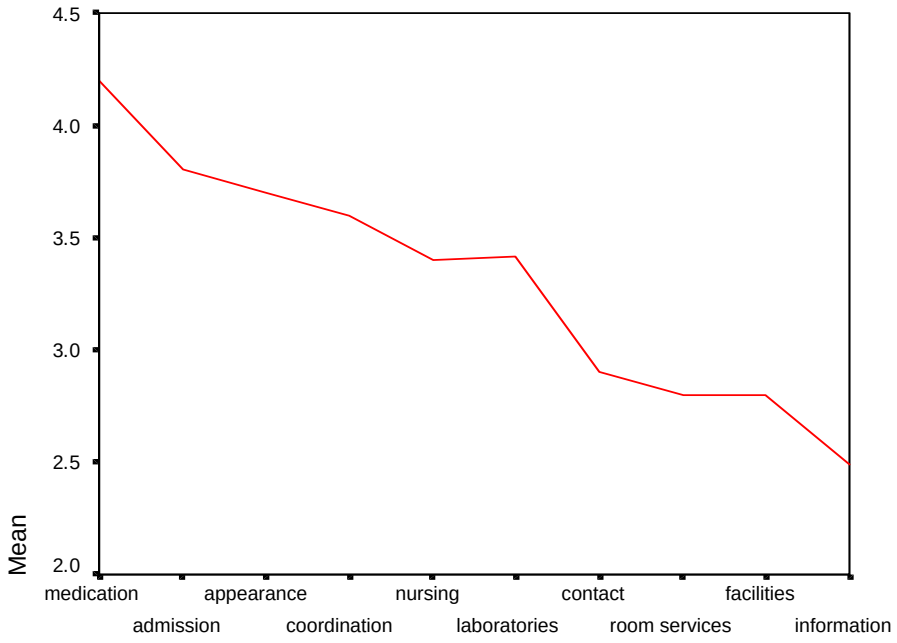
The significant (positive) relationship, stated above, applies to the various sections of the hospitals, as shown by the Pearson correlation coefficients for different sections.

Table 4.18 Delivery care processes in hospital services.

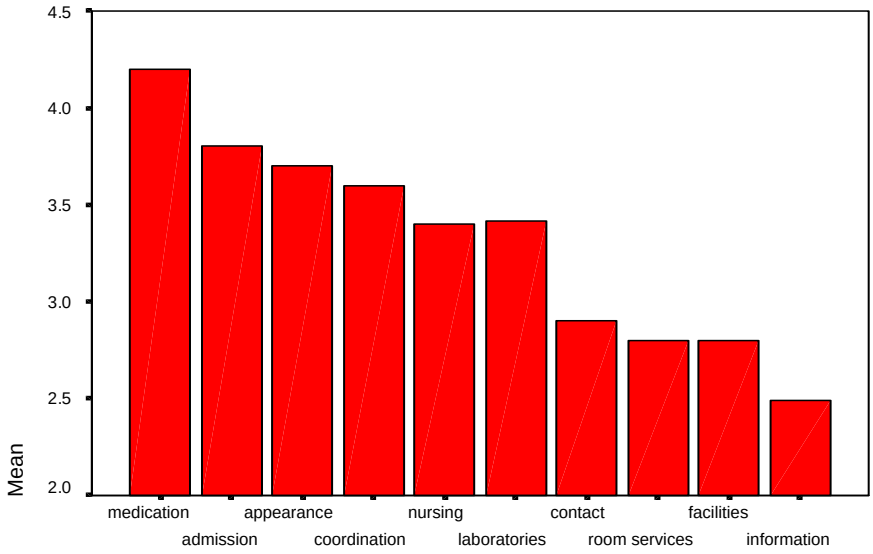
Delivery care processes	**Mean**	**St. deviation**	**Acceptable services Stand on 3.5 or more**
1-Medication availability and accuracy using medication	4.27	0.6888	1
2- Admission and registration	3.80	0.8243	2
3-Appearance and behavioral skills from staff	3.74	1.232	3
4-Coordination and corporation from medical staff	3.65	0.7840	4
5- nursing (Medical services from nurses)	3.42	0.9667	5
6- Laboratories and radiology	3.42	1.232	Less
7- Contact physicians	2.90	1.071	Less
8- Room services (cleaning and food).	2.875	1.269	Less
9-FacilitiesEquipments availability	2.80	1.1935	Less
10- information and willingness of nurses to answers questions	2.49	0.937	Less

Data presented in table 4.18 showed that five types of services exceed the critical more 3.5 with the highest serve 4.27 for medication availability and the lowest 3.54 for nursing which is almost equal to 3.5. The other four hospitals have the highest serve 3.42 for laboratories service but the three other ones are all less than 3. The total average of all the services was 3.35 which are below the critical level, indicating a weakness in total delivery care processes in all studied hospitals.

Significant differences in the assessment of both staff members and patients and the level of offered services in the various departments within the same hospital and between different hospital sectors were observed. Based upon the criteria level set for the tested hypothesis (3.5 out of 5 points, for good evaluation), most departments showed levels less than 3.5 indicating areas of weakness in most working departments with the exception of working departments in the private sector (Table 4.18).



Graph 4.15 Scheffe's for different of delivery care processes in Nablus hospitals.



Graph 4.16 Means of Nablus hospitals cross with level of delivery care processes.

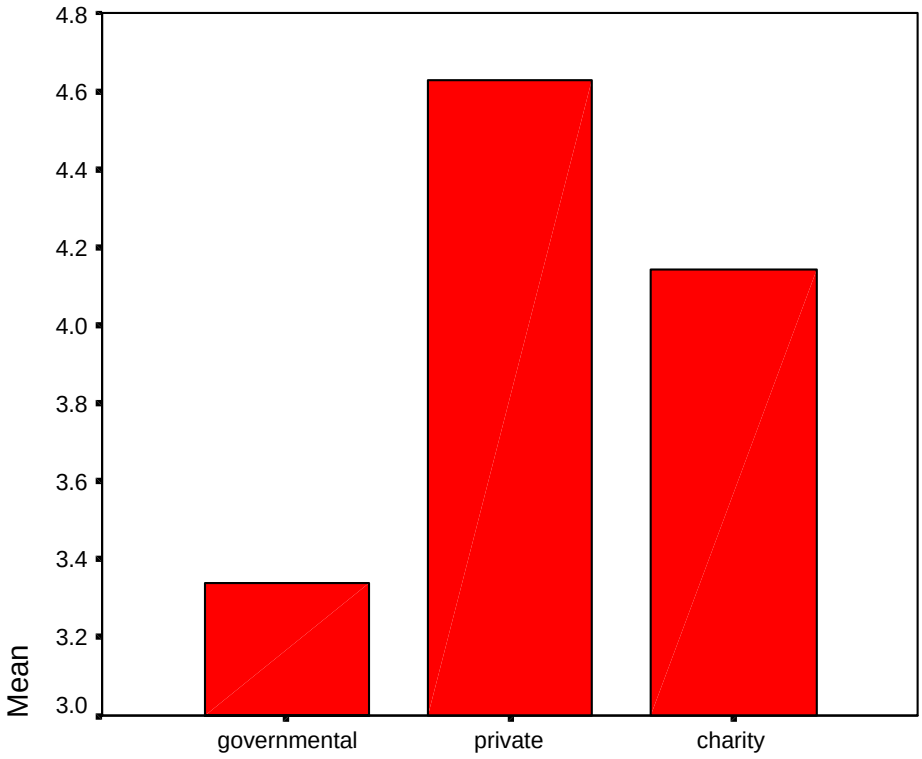
Table 4.19 Mean of type hospital cross with delivery care processes.

Delivery care processes	**Govern-mental**	**Private**	**Charity**	**Total**
1- Medication availability and accuracy use of medication	3.81	4.95	4.66	4.268
2- Admission and registration	3.3	4.56	4.26	3.8
3- Appearance and behavioral skills from staff	3.16	4.65	4.24	3.74
4- Coordination and corporation of medical staff	3.14	4.52	4.02	3.65
5- Nursing (medical services)	2.95	4.43	4.08	3.54
6- Laboratories and radiology	2.69	4.5	4.1	3.42
7- contract physician	2.26	3.81	3.54	4.14
8- Room services (cleaning and food)	1.94	4.375	4.667	2.875
9- Facilities Equipment availability	1.92	4.37	3.38	2.805
10- Information and willingness of nurse to answer question.	2.178	3.104	2.64	2.49
Total average of all services	**3.35**			

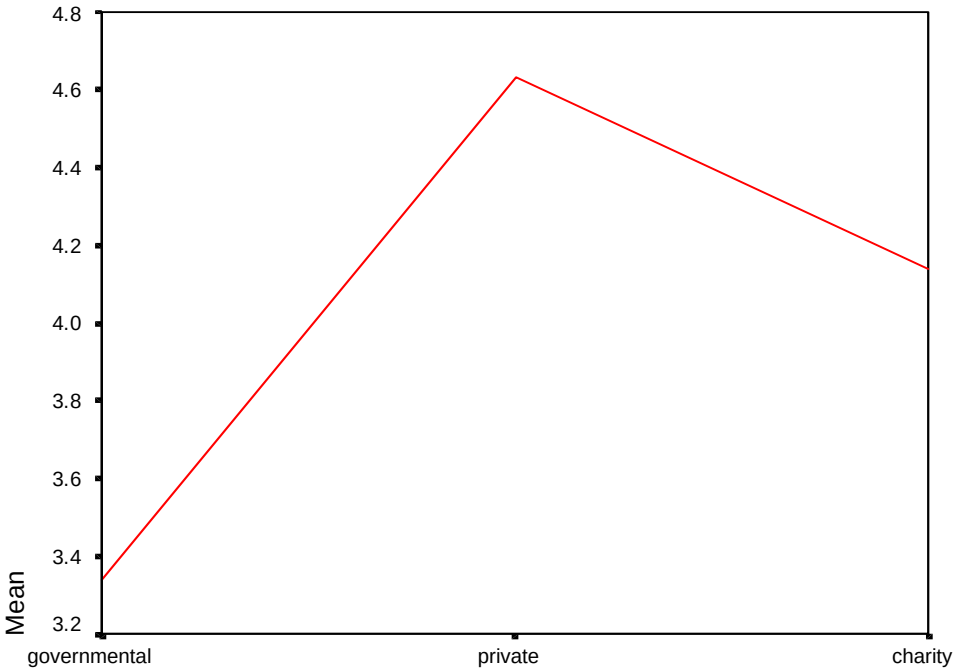
From the data presented in table 4.19 we may arrange the section in descending order of the efficiency of services: private hospitals (average exceeding 3.5); charitable hospitals (average exceeding 3.5 in general); and government hospital (average less in 3.5 with the exception of only one service which was medication availability).

Table 4.20 Patient satisfaction and type of hospital.

	Governmental Hospital	**Private Hospital**	**Charity Hospital**	**Total**
Patient Satisfaction (Q32-Q38)	3.34	4.63	4.14	3.814



Graph 4.17 Patient satisfactions according to type of hospitals in Nablus.



Graph 4.18 Scheffe's test for patient satisfaction according to hospital type.

Data presented in table 4.21 summarizes the various delivery care processes in the various departments of the studied hospitals. Looking through data one can identify the following points of weakness in the offered services:

a) With respect to medical availability, the highest scores were found for surgical (4.65) and maternity (4.54) sections and the lowest score were found for emergency (3.54).

b) With respect to administration and registration, the highest scores were for ICU (4.33) and surgical (4.22) sections and the lowest scores were for orthopedics (3.25) and children (3.3) sections.

c) Regarding appearance and behavioral skills, the highest scores were for surgical (4.28) and maternity (4.27) and the lowest score were for medical ward (women) (3.13).

d) In cooperation and coordination of medical staff, the highest scores were for maternity (4.05), surgical (4.02) and ICU (4.00); the lowest scores were for children (2.73).

e) In nursing, the highest scores were for ICU (4.13), surgical (4.42) and maternity (4.01) and the lowest was for medical ward (women) (2.93).

f) In laboratories and radiology, the highest score was for ICU (4.33); the lowest scores were for children (2.7) and medical ward (women) (2.32).

g) In contact physician, the highest score was for burns (3.66); the lowest scores were for medical ward (men) (2.47) and medical word (women) (2.67).

h) In Room services, the highest score was for surgical (3.64); the lowest score was for children (1.7).

i) In equipments availability, the highest score was for maternity (3.62), the lowest scores were for orthopedics' (1.8), children (1.3) and burns (2.00).

j) In willing, of nurses to response, the scores were generally low, with the highest score for burns (3.00) and the lowest scores for children (1.1) and, medical ward (women) (2.02).

Table 4.22 Mean average of all services in hospital departments cross with hospital type.

Departments	Average of all services	Average of all services for governmental hospital	Average of all services for private	Average of all services for charity
1- Surgical	3.95	3.38	4.29	3.94
2-Maternity and Gyna	3.92	2.032	4.54	4.39
3-Intensive care Unit ICU	3.66	3.35	-----	4.29
4- Emergency	3.54	3.19	4.18	4.37
5- Burns	3.41	3.41	-----	----
6-Orthopedic	3.30	3.30	-----	----
7-Medicalward (Men)	3.24	2.730	4.43	3.654
8-MedicalWard (women)	3.11	2.60	4.51	3.8
9-Children and neonates.	2.92	2.731	-----	3.68
Total	3.47	2.89	4.39	3.94

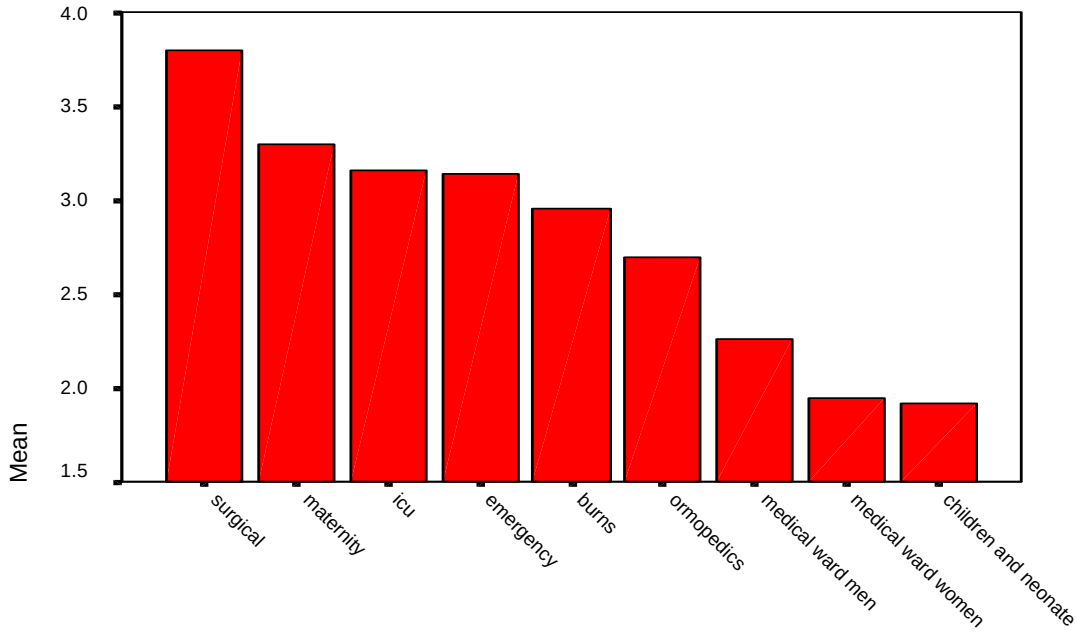
From the data shown in table 4.22 we find that:

a) In comparing sectors, the highest scores were for the private sector, and the lowest scores were for the governmental sector.

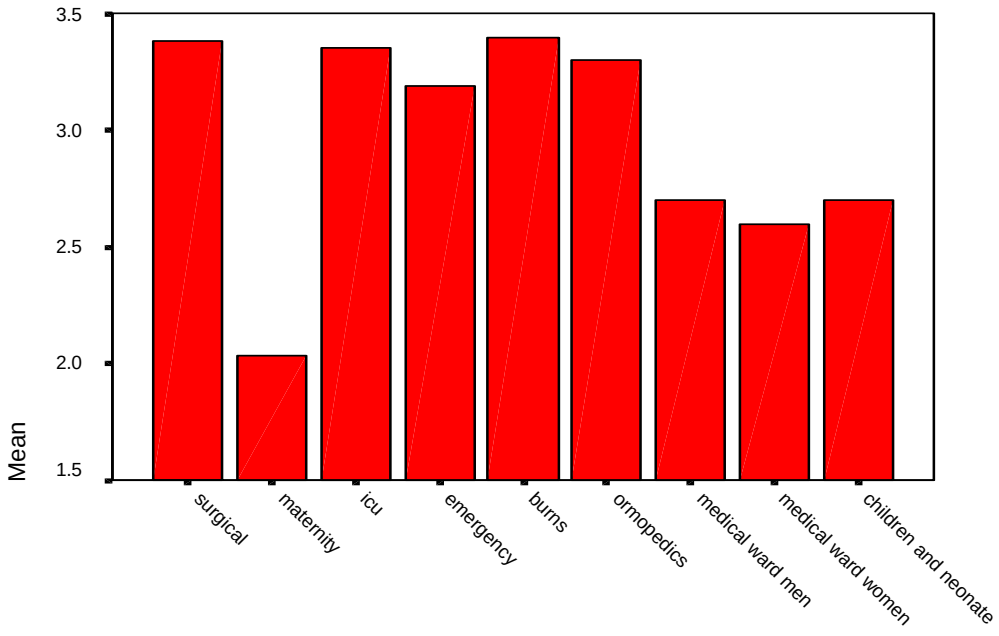
b) In comparing departments, we find that:

1) The departments that exceeded the critical mark (3.5) were: surgical (3.95), maternity (3.92) ICU (3.66) and Emergency (3.54).

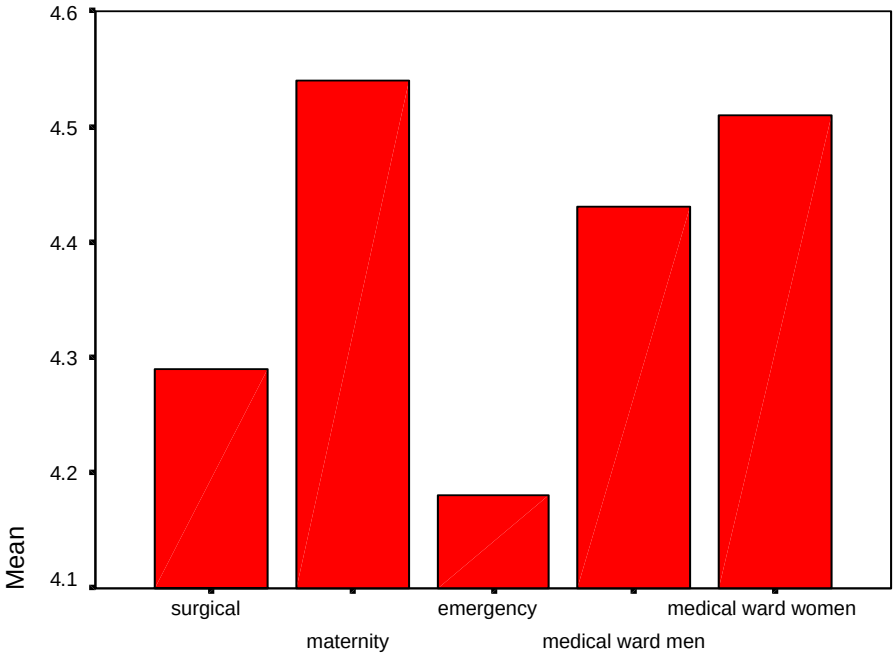
2) The departments that were short of achieving the critical mark of 3.5 were: burns (3.41); Orthopedics (3.30); medical ward (men) (3.24); medical ward (women) (3.11) and children (2.92).



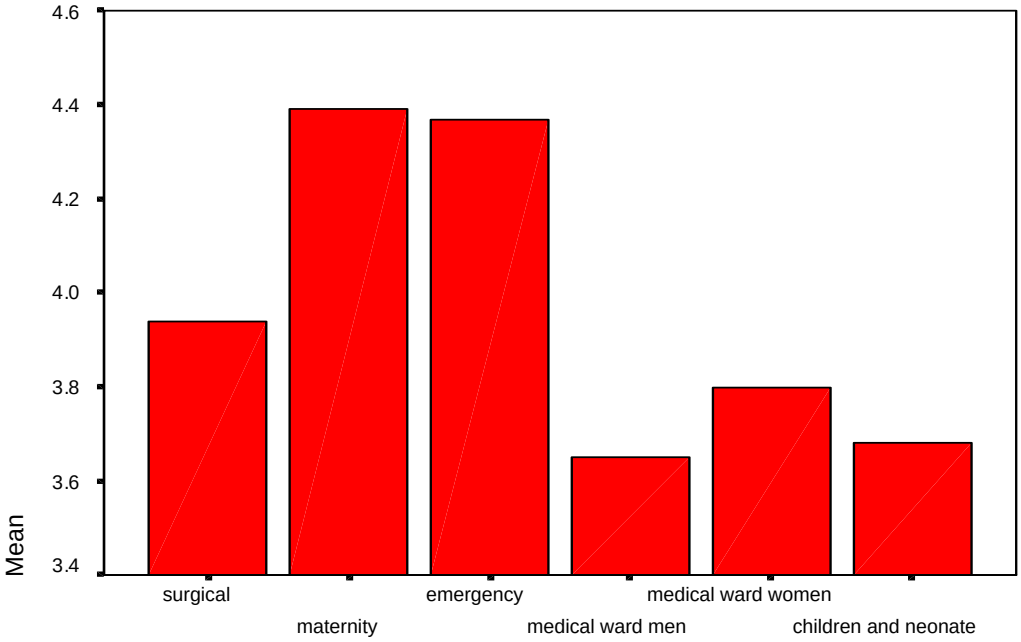
Graph 4.19 Average of all hospital departments services in Nablus hospital.



Graph 4.20 Average of total delivery care processes for governmental hospitals



Graph 4.21 Average of total delivery care processes for private hospitals



Graph 4.22 Average of total delivery care processes for charity hospitals

In general one can conclude that there is several point of weakness in the various different departments within total delivery care process in the

various studied hospitals. Such weakness was found even within the same category of hospital sector and within departments of the same category. Thus, it is essential at this stage to search for solution in order to minimize such weaknesses in the whole process of care delivery in our hospital system. This can be achieved through the adoption of standardized system based on TQM principles. The suggested model in the following chapter provide basis for such system. The model was designed using internationally adopted quality management systems with various modifications that suits our needs based on the identified points of weakness in the delivery care system found in the current study.

It is worth noting that TQM principles was adopted by Rafidia hospital, however, TQM was applied to limited departments. Our data clearly showed that those departments that followed TQM scored high (Medical word for women) compared to the other departments within the same hospital and compared to other similar departments in the various studied sectors.

Chapter Five

Proposed Model for Hospital Quality Management System

5.1 Model principles

All listed principles were adopted from the recommendations of the Joint Commission on Accreditation of Healthcare Organization, United States of America, 1994 and modified according to ISO 9001 (ISO 9000: 2000).

5.1.1 Patient focused functions

These include:

1. Patient “Rights and Organizational Ethics” that include standards which address ethical practices of organizations.

2. The “Assessment of patients” that contains the pathology and clinical laboratory services standards and waived testing, reassessment, care decisions, structures supporting the assessment of patients and additional requirements for specific patient populations.

3. “The care of patients” or delivery of care. Which includes many of standards apply to every patient care activity. Some standards apply as appropriate: Anesthesia care, medication use, nutrition care, operative and other invasive procedures, rehabilitation services, and special treatment procedures such as restraints or seclusion.

4. The “Continuum of care” it is title to reflect the inclusion of both the entry to setting or service and coordination standards as well as those relating to discharge planning. The preamble of this principle notes five phases of care: (Pre-enter, enter, within the organization, pre-exit, exit).

5.1.2 Management of the environment of care "safety protocols and procedures"

It takes a functional approach to the plant, technology, and safety management standards. The emphasis is on hospital organizational design and implementation in seven areas: safety; security; hazardous material waste; emergency preparedness; medical equipment; and utility systems. It may also include a new approach that can be standardized to addresses characteristics of the social environment that enhance self-image, dignity and privacy; e.g.: related to smoking within hospital, hospitals are expected to be smoke- free environment.

5.1.3 Management of human resources

This principle focuses on whether the number and qualifications of staff are sufficient to provide the care related to the mission of the hospital; it is an organization wide requirement. This emphasis builds on several leadership standards that relate to budgeting to provide for patient needs, making recommendations for sufficient numbers of qualified personnel, and determining the quality and competence of those providing patient care. It includes: (Human resource planning, orientation, training and education of staff, competence assessment, staff rights mechanisms).

5.1.4 Management of information

This section was addressed based on documentation of patient consent. Information management is a function a set of process and activities- focused on meeting the organization's information needs. Its goal to obtain, manages, and uses information to enhance and improve individual and hospital performance in patient care, governance, management and support process. It includes standards for: Information

Management Planning, Patient- Specific data and information, aggregate data and information, knowledge-based information, comparative data and information.

5.1.5 Education which is includes patient responsibilities

The goal of educating the patient and/or, when appropriate, family is to improve health out comes by promoting recovery, speeding return to function, promoting healthy behavior, and appropriately involving the patient in his or her care decisions.

5.1.6 Surveillance, prevention and control of information

The goal of this principle is for hospital to identify and reduce risks of endemic and epidemic nosocomial infections in patients and staff.

5.1.7 Improving organizational hospital performance

This includes regulatory framework. For improving hospital organizational performance function, the goal, is that the organization designs processes well and systematically measures, assesses and improves its performance to improve patient health outcomes. The dimensions of performance include: Doing the right thing (efficacy, appropriateness). And doing the right thing well (Availability, timeliness, effectiveness, continuity, safety, efficiency and the respect and caring.).

5.1.8 Structures with functions

It is principle for the key structures necessary for performance, which include: (Governance focuses on hospital by laws, management addresses, and the role of chief executive officer, medical staff organization and

credentialing, nursing focuses on the role of the nurse executive. This principle addresses responsibilities of key organizational leaders; it also supports and reinforces the “leadership”.

5.2 Framework for improving performance

The framework for improving performance offers abroad and inclusive perspective on organizational improvement. The framework addresses three issues that must be considered by any hospital dedicated to excellence: The first issue is the hospital’s relationship with its external environment. Today successful hospital must be able to anticipate, understand and proactively and flexibly respond to changes in dynamic health care environment; the second issue is the hospital’s internal characteristics and functions. Excellence in patient care requires state of the–art professional knowledge; clinical, management, governance and support expertise; and competent technical skills integrated and coordinated organization wide to effectively and efficiently respond to patient and family needs; The third issue is a methodology for systematically assessing and improving important functions and work processes and their out comes.

Such a methodology is depicted in the cycle for improving performance. Data shown in figure 5.1 represent the cycle outlines essential activities common to a variety of improvement approaches and offers hospital considerable flexibility in designing and implements processes and outcomes in a health care organization. The components of the performance- improvement cycle are connected by the actions of organizational leaders, managers, physicians and other clinicians, trustees,

and support staff, who design, measure, assess and improve their work process.

Critical Aspects of a Health Care Organization's Internal Environment			
***Leadership**	*** Management of Human Resources**	*** Management of Information**	***Improving Organization-al Performance**
* Mission	* Education	* Planning	* Collaboration
* Vision	* Competence	*Aggregate Data	* Process Thinking
* Priorities		*Comparative Data	
* Resources		*Knowledge Based Data	

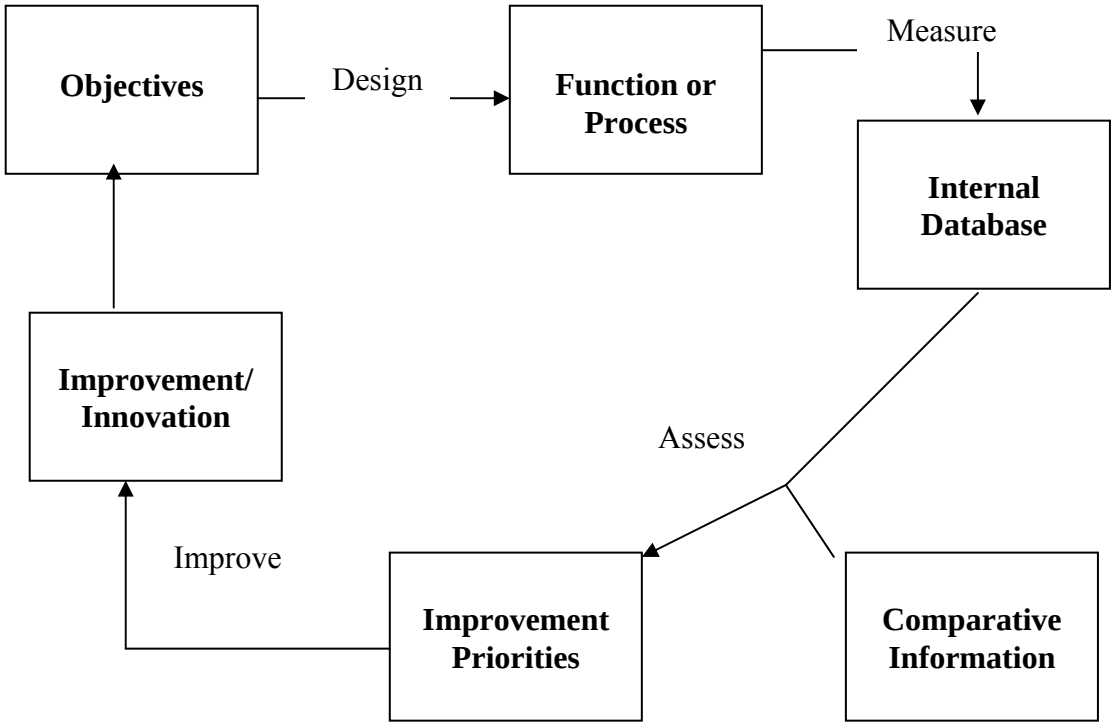


Figure 5.1 Critical aspects of the internal environment of health care organizations and the flowchart of the cycle for improving performance (adopted from the Joint Commission on Accreditation of Healthcare Organization, USA, 1994)

This flow chart illustrates the process for improving performance. The improvement cycle is applicable at all levels of the healthcare organization, from the overall system- level; to multidisciplinary functions, such as patient education or medication use; to the level of specific

processes, such as pain assessment or personnel recruitment; to the level of discrete tasks, such as drawing arterial blood or scheduling patient appointments. The performance improvement cycle has no beginning and no end. It is an ongoing process that may be entered at any point and many conduct several parts of the process simultaneously.

Finally, this cycle describes only part of the work of a healthcare organization committed to excellence. Some functions most closely related to performance improvement include management of information, leadership, and management of human resources.

5.2.1 Dimensions of performance

5.2.1.1 Doing the right thing

The **efficacy** of the procedure or treatment in relation to the patient's Condition. The degree to which patient care accomplish the desired or projected outcome (s). The **appropriateness** of a specific test, procedures, or service to meet the patient's needs. The degree to which care provided is relevant to patient's clinical needs, given the current state of knowledge.

5.2.1.2 Doing the right thing well

The **availability** of a needed test, procedures, treatment or service to the patient who needs it. The degree to which appropriate care is available to meet patient's need.

The **timeliness** with which a needed test, procedures, treatment or service is provided to the patient. The degree to which appropriate care is provided to the patient at the most beneficial or necessary time.

The **effectiveness** with which tests, procedures, treatments, and services are provided. The degree to which the care is provided in the correct manner, given the current state of knowledge, to achieve the desired or projected outcome (s) for the patient.

The **continuity** of the services provided to the patient respect to other services, practitioners, and with providers, and over time. The degree to which care for the patient is coordinated among parishioners, organizations, and over time.

The **safety** of the patient (and others) to whom the services are provided. The degree to which the risk of an intervention and the risk in the care environment are reduced for patients and health care provider.

The **efficiency** with which services are provided. The relationship between the outcomes (result of care) and the resources used to deliver patient care.

The **respect and caring** with which services are provided. The degree to which the patient or a designee is involved in his or her own care decisions and to which those providing services do so with sensitivity and respect for the patients needs, expectations, and individual differences.

The quality cube in figure 5.2 represents a model for hospital management system for assessing quality that illustrates the relationship of dimensions of performance and important functions to a range of patient populations and service provided. The cube is a tool that can help stimulate thought about, and focus measurements related to, improvement priorities. It can be entered at any point and can be used for global or very specific analysis. This multidimensional analysis can help you think broadly about problems, better understand their scope, and identify a wide

range of improvement opportunities. For example, if patient satisfaction conducted in an out patient diabetic clinic showed a rising level of dissatisfaction with patient education, the cube can be used to help analyze the problem. A nurse manager can bring together appropriate staff and, using the cube, being breaking out aspects of the problem starting with identification of the out patient population. Then, the group can consider each dimension of performance to determine which might be affected by the problem. Finally, the group can review important functions to zero in on potential causes of the problem.

Quality management system contains performance- focused standards that apply to departments and disciplines or professionals across the healthcare organization (hospital). The matrixes in (Figure 5.3) show which standards apply to which departments and specific roles, such as case manager or president of the medical staff. Additional space is provided in the matrix to enable any hospital to add departments or professionals unique to their hospital.

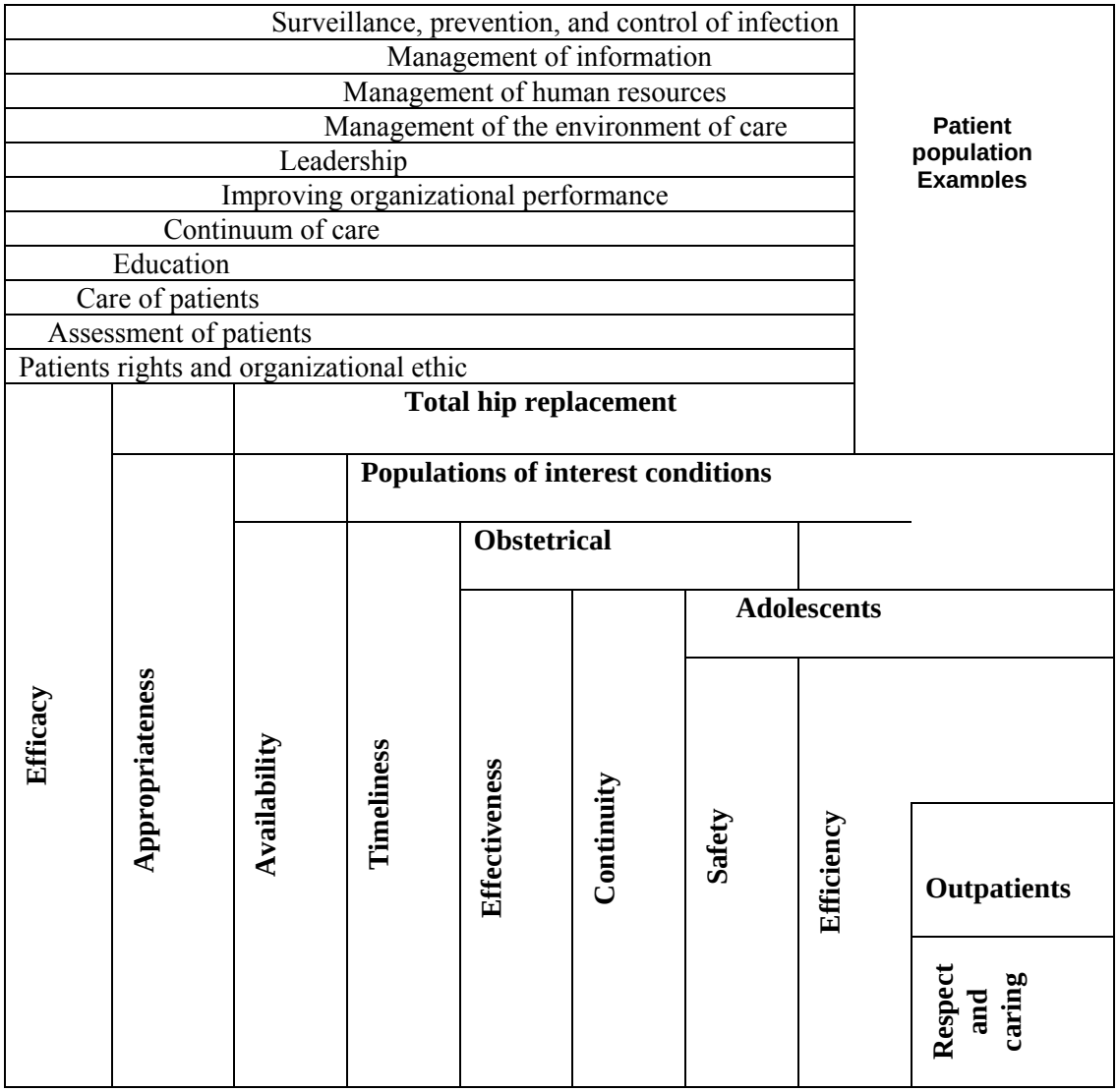


Figure 5.2 The quality cube-a model for assessing the quality of health care (adopted from the Joint Commission on Accreditation of Healthcare Organization, United States of America, 1994).

Applicability of Standards to Specific Individuals And Departments	**- PATENT- FOCUSED FUNCTIONS**	Patient Rights and Organizational Ethics (R1)	Assessment of Patients (PE)	Care of Patients (TX)	Education (PF)	Continuum of Care (CC)	**- ORGANIZATIONAL FUNCTIONS**	Improving Organizational Performance (P1)	Leadership (LD)	Management of the Environment of Care (EC)	Management of the Human Resources (HR)	Management of Information (IM)	Surveillance, Prevention, and Control of Infection (IC)	**SECTION3- STUCTURES WITH FUNCTIONS**	Governance (Go)	Management (MA)	Medical Staff (MS)	Nursing (NR)
Individual Professionals	**Important Functions**																	
Case Manager		■	■	■	■	■		■			■	■						
Central Services Manager								■	■	■	■	■	■					
Chief Operating Officer		■						■	■	■	■	■	■		■	■		
Child Life Specialist		■	■	■	■	■		■		■	■	■	■					
Clinical Pharmacologist		■	■	■	■	■		■			■	■	■					
Dentist		■	■	■	■	■		■	■	■	■	■	■					
Dietitian		■	■	■	■	■		■	■	■	■	■	■					
Executive Housekeeper								■	■	■	■	■	■					
Executive Officer/Administrator		■				■		■	■	■	■	■	■		■	■		
Governing Body Chair		■				■		■	■	■	■	■	■		■	■		
Head Nurse		■	■	■	■	■		■	■	■	■	■	■					■
Human Resources Professional								■	■		■	■	■					
Infection control practitioner		■	■	■	■			■	■	■	■	■	■					
Technicians		■	■		■			■	■	■	■	■	■					
Licensed Independent Practitioner		■	■	■	■	■		■	■	■	■	■	■				■	
Medical Affairs Director								■	■		■	■	■				■	
Medical Staff Services Processional								■	■		■	■	■				■	
Nuclear Medical Technologist		■	■	■	■			■		■	■	■	■					
Nurse Anesthetist		■	■	■	■			■		■	■	■	■					
Nurse Clinical Specialist		■	■	■	■	■		■		■	■	■	■					
Nurse Executive		■	■	■	■	■		■	■	■	■	■	■					■
Nursing Director (S)		■	■	■	■	■		■	■	■	■	■	■					■
Patient Advocate		■	■	■	■	■		■		■	■	■	■					
Patient Educator		■	■	■	■	■		■	■	■	■	■	■					
Physician		■	■	■	■	■		■	■	■	■	■	■				■	
Podiatrist		■	■	■	■	■		■	■	■	■	■	■				■	
President of the Medical Staff		■	■	■	■	■		■	■	■	■	■	■				■	
Psychiatry Medical Director		■	■	■	■	■		■	■	■	■	■	■				■	
Psychologist		■	■	■	■	■		■	■	■	■	■	■				■	
Quality improvement coordinator		■	■	■	■	■		■	■	■	■	■	■					
Safety Officer		■						■	■	■	■	■	■					
Security Police		■						■		■	■	■	■					
Social Worker		■	■	■	■	■		■		■	■	■	■					
Staff Education specialist		■	■	■	■	■		■		■	■	■	■					■
Staff Engineer		■						■		■	■	■	■					■
Staff Nurse		■	■	■	■	■		■		■	■	■	■					
Staff pharmacist		■		■	■			■		■	■	■	■					
x-ray Technologist		■	■	■	■			■		■	■	■	■					

Applicability of standards to specific individuals and departments	**1- PATENT- FOCUSED FUNCTIONS**	Patient Rights and Organizational Ethics (R1)	Assessment of Patients (PE)	Care of Patients (TX)	Education (PF)	Continuum of Care (CC)	**- ORGANIZATIONAL FUNCTIONS**	Improving Organizational Performance (P1)	Leadership (LD)	Management of the Environment of Care (EC)	Management of the Human Resources (HR)	Management of Information (IM)	Surveillance, Prevention, and Control of Infection (IC)	**- STUCTURES WITH FUNCTIONS**	Governance (Go)	Management (MA)	Medical Staff (MS)	Nursing (NR)
Hospital Professionals	**1995 Important Functions**																	
Admitting Office		■	■		■	■		■	■	■	■	■	■					
Ambulatory clinics		■	■	■	■	■		■	■	■	■	■	■				■	
Anesthesiology		■	■	■	■	■		■	■	■	■	■	■				■	
Burn unit		■	■	■	■	■		■	■	■	■	■	■				■	
Cardiac catheterization unit		■	■	■	■	■		■	■	■	■	■	■				■	
Cardiovascular ICU		■	■	■	■	■		■	■	■	■	■	■					
Chemical Dependency Program		■	■	■	■	■		■	■	■	■	■	■					
Child life department		■	■	■	■	■		■	■	■	■	■	■					
Dental department		■	■	■	■	■		■	■	■	■	■	■				■	
Department of surgery		■	■	■	■	■		■	■	■	■	■	■				■	
Diagnostic radiology		■	■	■	■	■		■	■	■	■	■	■				■	
Dietetic services		■	■	■	■	■		■	■	■	■	■	■					
Emergency services		■	■	■	■	■		■	■	■	■	■	■				■	
Employee health service			■		■			■		■	■	■	■					
Finance /Accounting/Business office								■	■	■	■	■	■			■		
Hospital linen/laundry service								■	■	■	■	■	■					
Hospital wide training department		■	■	■	■	■		■	■	■	■	■	■					
ICU(s)-Adult, pediatric		■	■	■	■	■		■	■	■	■	■	■				■	
Library services								■		■	■	■	■					
Medical and/or surgical ICU		■	■	■	■	■		■	■	■	■	■	■				■	
Medical records services		■	■	■	■	■		■	■	■	■	■	■				■	
Neonatal ICU		■	■	■	■	■		■	■	■	■	■	■				■	
Nursing care services		■	■	■	■	■		■	■	■	■	■	■					■
Occupational therapy		■	■	■	■	■		■	■	■	■	■	■					
Pastoral counseling		■						■		■	■	■	■					
Pathology/laboratory services		■	■	■	■	■		■	■	■	■	■	■				■	
Pharmacy				■	■			■	■	■	■	■	■					
Physical therapy		■	■	■	■	■		■	■	■	■	■	■					
Psychiatric services		■	■	■	■	■		■	■	■	■	■	■					
Radiation Oncology services		■	■	■	■	■		■	■	■	■	■	■				■	
Rehabilitation services		■	■	■	■	■		■	■	■	■	■	■					
Renal dialysis, inpatient		■	■	■	■	■		■	■	■	■	■	■				■	
Renal dialysis, outpatient		■	■	■	■	■		■	■	■	■	■	■				■	
Resource center								■		■	■	■	■					
Respiratory Care		■	■	■	■	■		■	■	■	■	■	■				■	
Social work services		■	■	■	■	■		■	■	■	■	■	■					
Speech pathology		■	■	■	■	■		■	■	■	■	■	■					
Step-Down cardiology unit		■	■	■	■	■		■	■	■	■	■	■					
Transportation service/ Ambulance		■	■	■	■	■		■		■	■	■	■					

Figure 5.3 Matrixes for hospital standards (adopted from the Joint Commission on Accreditation of Healthcare Organization, United States of America, 1994).

5.3 Hospital quality management system requirements

5.3.1 Introduction

Hospitals should view as an entity responsible for overseeing, and integrating its important activities and functions, and not simply as a collection of independent units. Quality management system will provide the substance, form and clarity necessary to help hospitals meet their new public accountabilities.

Quality Management system completes the transition of hospital standards from those that focus on capability to those that focus on actual performance of clinical and organizational functions and processes, which will significantly impact patient care. The model standards process is based on the premise that health care organizations exist to maximize the health of the people they serve while using resource efficiently.

The standards themselves are framed primarily as performance objectives- performance objectives which, although always subject to refinement, are unlikely to change substantively over time. What will change and expand is the richness and diversity of ways through which hospitals achieve the intents of individual standards.

5.3.2 Scope

This model standard specifies requirements for a quality management system where this standard developed to emphasize evaluation of hospital performance aimed at continuously improving outcomes of the patient care:

- Standards should emphasize actual performance, not simply the capacity to perform.

- Standards should address what counts: The care provided to the patient and the management of the hospital. These make difference in quality for the patient.

- In this broad area of patient care and management, standards should focus on important activities, or functions, that significantly influence, directly or indirectly, eventual patient outcomes. “Simply stated hospital should be doing the right things and doing them well”.

- The performance expectations reflected in the standards should be set forth in a quality improvement context.

The objective is not to punish component practitioners and staffs, but rather to improve the internal system and work environment that help them and their organization realize their primary goal. That goal is excellent care that continues to improve over time.

5.3.3 Application

All requirements of this standard are generic and are intended to be applicable to all hospital or any health care organizations, regardless of type, size and complexity.

Carrying out these standards often requires multidisciplinary team work involving many hospital departments and services. Standards are reorganizing within functional framework that envisions the hospital as integrated system, rather than as a collection of discrete, independent units. Therefore, the standards that appear in the Quality Management system are not meant to be prescriptive; they are designed to encourage innovation and flexibility, where hospital free to develop strategies and approaches to

performance improvement that best meet organization's unique needs and those of there patients.

5.3.4 Terms and definitions

For the purpose of this standard, the terms and definitions given in the quality management system in all inclusive way include:

- **Department;** refers to any structural unit of the hospital, whether it is called a department, service, unit.

- **Care** also refers to treatment and provision of service.

- **Patient** includes such designations such as client, resident, and individuals served.

- **Performance measure**; a measure, such as a standard or indicator, used to assess performance of function or process of organization.

- **Process**; A goal- directed, interrelated series of actions, events, mechanisms, or steps.

- **Health Care Organization**: a generic name used to describe many types of organizations that provide health care, e.g., Hospital

5.4 Quality management system

5.4.1 General requirements

The general categories of the ISO 9001:2000 standard on quality management systems include: management responsibility, resource management, service realization, measurement analysis and improvement, which are detailed in the standard. The hospital shall establish, document and maintain a quality management system and continuality improve its

effectiveness in accordance with the requirements of standards. The hospital shall:

a) Identify the process need for the quality management system and their application through out the hospital (see 5.2.2).

b) Determine the sequence and interaction of those processes.

c) Determine criteria and methods needed to ensure both the operation and controls of these processes are effective (See figure 5.1).

d) Ensure the availability of resources and information necessary to support the operation and monitoring of these processes.

e) Monitor, measure and assess, analyze these processes, and.

f) Implement action necessary to achieve planned results and continual improvement of these processes.

These processes shall be managed by hospital in accordance with requirements of standards. Where a hospital chooses to out source any process that affect health care services conformity with requirements. The hospital shall ensure control (by applying quality assurance) over such processes. Control of such out sourced processes shall be identified within the quality management system.

5.4.2 Documentation requirement (management of information)

Its goal to obtain, manages, and uses information to enhance and improve individual and organizational performance in patient care, governance, management, and support processes. It is essential that hospital must treat information as an important resource to be managed effectively and efficiently.

5.4.2.1 General

The quality management system documentation shall include:-

a) Documentation statements of a quality policy and quality objectives.

b) A quality manual.

c) Documented procedures required by identified standards.

d) Documents needed by the hospital to ensure active planning, operation and control of its processes.

e) Records required by this identified standards.

Notes:

1. Where the term “documented procedure” appear within this standard, this means that procedure is established, documented, implemented and maintained.
2. The extent of the quality management system documentation can differ from one hospital to another due to size of the hospital and type of activities; complexity of processes and their interactions, and competence of personnel.
3. The documentation can be in any form or type of medium.

5.4.2.2 Quality objectives

The Standards describe a vision of effective and continuously improving information management in the hospital. The objective shall be related to achieving these visions are:

a) More timely and easy access to complete information;

b) Improved data accuracy;

c) Demonstrated balance of proper level of security versus ease of access;

d) Use of aggregate data, along with external knowledge bases and comparative data, to pursue opportunities for improvement.

e) Redesign of important information- related processes to improve efficiency.

5.4.2.3 Quality manual

The hospital shall establish and maintain a quality manual that includes:

a) The scope of the quality management system, including details of and justification for any exclusion.

b) The documented procedures established for the quality management system.

c) A description of the interaction between the processes of the quality management system.

5.4.2.4 Documentation standards

The standards focus on the key information- management processes of organization wide planning to meet internal and external information needs. The standards shall address:

a) Identification of the health organization's information needs;

b) Structural design of the information- management system;

c) Definition and capture of data information;

d) Data analysis and transformation of data into information;

e) Transmission and reporting of data information; and

f) Assimilation and use of information

Note: Staff at many levels must be educated and trained in managing and using information.

5.4.2.5 Control of documents and records

Documents management standards shall provide for the definition, capture, analysis, transformation, transmission, and reporting of individual patient specific data and information related to the process (es) and/ or of the out come (s) of the patients care. Documents required by the quality management system shall be established:

a) To approve documents for adequacy prior to issue.

b) To review and update as necessary and re-approve documents.

c) To ensure that changes and the current revision status of documents are identified.

d) To ensure that relevant versions of applicable documents are available at points of use,

e) To ensure that documents remain legible and readily identifiable.

f) To ensure that documents of external origin are identified and their distribution controlled, and

g) To prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.

- Records shall be established and maintained to provide evidence of conformity to requirements and the effective operation of the quality management system.

- Records shall remain legible, ready identifiable and retrievable documented procedure shall be established to define the controls needed for the identification of the organization needs. Example of hospital records standards:

- The hospital initiates and maintains medical records for every individual assessed or treated. The medical record incorporates information from subsequent contacts between the patient and the organization.

- The medical record contains sufficient information to identify the patient, support the diagnosis, justify the treatment, document the course and results accurately, and facilitate continuity of care among health care providers.

It is important to note that efficiency and effectiveness of information-management processes may be affected by the technologies employed (for example, computerization), the principles of good information management are relevant regardless of the technology used. Thus, although these standards are compatible with current, cutting- edge technologies, they are intended to be equally applicable in hospitals that are not computerized.

5.5 Management responsibility

5.5.1 Management commitment

Top Management shall provide evidence of its commitment to the development and implementation of the quality management system and continually improving its effectiveness by:

a) Communicating to the hospital, the importance of meeting patient as well as statutory and regulatory requirements,

b) Establishing the quality policy.

c) Ensuring that quality objectives care established.

d) Conducting management review.

e) Ensuring availability of resource (definition of regulations for information, substitution and cooperation).

f) Determination of expectations of sponsor health care organization; patients; relatives; cooperation partners; employee and insurance companies.

g) Establishing work procedures including emergency and crisis management concept.

5.5.2 Patient focus (patient responsibilities)

Top management shall ensure that patient requirements are determined and are met with the aim of enhancing patient satisfaction (See 5.8.2.1).

5.5.2.1 Patient rights and organizational ethics

Mechanisms to respect the patient’s right to treatment applicable or services subject to the hospital's capability law and regulation top management shall ensure (See appendix A fig. A1):

a) Document review of polices and procedures or other mechanisms foe addressing ethical issues (patient rights and responsibilities; informed consent; advanced directives; research, investigation, and/ or clinical trials; resolution of conflict in care or treatment discussions; pain management; withholding resuscitation, and for going or withdrawing life- sustaining treatment.

b) Medical records documentation of resolution of actual ethical issues

5.5.2.2 Patient education

The patient and /or, when appropriate, his or her family are provided with appropriate education and training to increase knowledge of the patient's illness and treatment needs and to learn skills and behaviors that promote recovery and improve function. Education shall provide evidence of performance (See appendix A fig. A2).

a) Organization policies and procedures defining responsibilities of patient /or, when appropriate, family.

b) Progress notes

c) Flow sheets

d) Referral and consultation notes

e) Interviews with clinical staff.

5.5.2.3 The "continuum of care"

Hospital must view the care it provides as part of continuum that over time enables patients to have access to an integrated system of settings, services, and care level. Within this continuum of care, each hospital defines, shapes, and sequences over time the following processes and activities to maximize coordination of care. The continuum of care notes five phases of care: Pre-entry phase, entry phase, within the organization, pre exit phase. Top management shall provide evidence of performance.

5.5.2.3.1 Pre-entry phase

a - Linkage with and use of available information sources about the patient's need; and

b- Linkage with other care settings and organizations,

c- Organization plan for the provision of patient care (referral and transfer agreements), and

d- Policies and procedures defining assessment requirements.

5.5.2.3.2 Entry phase

a) Availability of services consistent with the hospital's mission, populations, and treatment settings or services to meet patient's needs;

b) Reassessment of the use and value of the continuing care in meeting the patient's needs; and

c) Provision of information or data to help others meet the patient's continuing needs.

5.5.2.3.3 Within the organization

a) Continuous flow of services from assessment through treatment and reassessment; and

b) Coordination of care among practitioners.

5.5.2.3.4 Exit-phase

a) Direct referral to practitioners, settings, and organizations to meet the patient's continuing needs**;**

b) Reassessment of the use and value of the use and value of the continuing care in meeting the patient's needs;

c) Provision of information or data to help others meet the patient's continuing needs.

Other functional areas that support continuum of care include leadership’s planning and management of services, assessment of patients, care of patients, education of the patient and family, and management of information. (See appendix A fig. A3.)

4.5.3 Quality policy

Top management shall ensure that the quality policy includes:

a) Is appropriate to the purpose of the hospital,

b) Includes a commitment to comply with requirements and continually improve the effectiveness of the quality management system.

c) Provides a framework for establishing and reviewing quality objectives.

d) Is communicated and understood within the hospital,

e) Is reviewed for continuing suitability,

f) Educate and train for quality improvement, and

g) Measure patient satisfaction.

5.5.4 Quality objectives

Top management shall ensure that quality objectives, including those needed to meet requirements for regulation of processes, relevant to quality and risk management.

5.5.5 Responsibility, authority and communication

5.5.5.1 Responsibility and authority

Top management shall ensure that responsibilities and authorities are defined and communicated within the hospital.

5.5.5.2 Management representative

Top management shall appoint a member of management who, irrespective of other responsibilities, shall have responsibility and authority that includes:

a) Ensuring that processes needed for the quality management system are established, implemented and maintained,

b) Reporting to top management on the performance of the quality management system and any need for improvement, and

c) Ensuring the promotion of awareness of patient needs through the hospital.

5.5.5.3 Internal communication

Top management shall ensure that appropriate communication processes are established within the organization and that communication takes place regarding the effectiveness of the quality management system.

5.5.6 Management review

5.5.6.1 General

Top management shall review the hospital's quality management system, at planned intervals, to ensure its continuing suitability, adequacy and effectiveness. This review shall include assessing opportunities for

improvement and the need for changes to the quality management system, including the quality policy and quality objectives. Records from management reviews shall be maintained (see 5.4.2.4).

5.5.6.2 Review input

The input to management review shall include information on:

a) Result audits,

b) Patient- family feed back,

c) Process performance and service conformity,

d) Status of preventive and corrective actions,

e) Follow-up actions from previous management reviews.

f) Changes that could affect the quality management system and

g) Recommendations for improvement.

5.5.6.3 Review out put

The out put from the management review shall include any decision and actions related to:

a) Improvement of the effectiveness of the quality management system and its processes,

b) Improvement of service related to patient needs, and resource needs.

5.6 Resource management

5.6.1 Provision of resources

The hospital shall determine and provide the resources needed to implement and maintain the quality management system and continually

improve its effectiveness, and to enhance patient satisfaction by meeting patient needs.

5.6.2 Management of human resources

5.6.2.1 General

Personnel performing work affecting quality of service shall be competent on the basis of appropriate education, training, skills and experience. (See appendix A fig. A4)

5.6.2.2 Competence, awareness and training

The hospital shall

a) Planning by hospital's leaders that define the qualifications, competencies, and staffing needed to carry out hospital's mission.

b) The hospital provides an adequate number of staff whose qualifications are commensurate with defined job responsibilities and applicable licensure, law and regulation, and/or certification.

c) Developing and implementing process designed to ensure that the competence of all staff members is assessed, maintained, improved, and demonstrated throughout their association with the hospital.

d) Ensure that its personnel are aware of the relevance and importance of their activities and how to contribute to the achievement of the quality objectives,

e) Providing a work environment that promotes self development and learning.

f) A staff orientation process provides initial job training and information, including an assessment of an individual's capability to perform specified responsibilities.

5.6.2.3 Staff right mechanism

The hospital shall establish polices and mechanism to address

a) Any request by a staff member not to participate in an aspect of patient care, including treatment. These policies and mechanisms address;

b) Which specific aspects of patient care or treatment are included in the solutions where there is perceived conflict with the staff member's cultural values or religious beliefs; and

c) How the organization will ensure that a patient's care (including treatment) will not be negatively affected if the request is granted.

5.6.2.4 Directing departments

The hospital shall establish polices that address department directors are responsible, either personally or through delegation for (See appendix A fig. A5):

a) Integrating the service into the hospital's primary function;

b) Coordinating and integrating interdepartmental and intra-departmental services;

c) Recommending a sufficient number of qualified and competent persons to provide care, including treatment;

d) Continuously assessing and improving the performance of care and services provided;

e) Maintaining quality control programs, as appropriate.

f) Orienting and providing in-service training and continuing education of all persons in the department;

g) Participating in the selection of sources for needed and services not provided by the department or the hospital.

5.6.3 Infrastructure

The hospital shall determine, provide and maintain the infrastructure needed to achieve excellent service to the patient. Infrastructure include as applicable.

a) Building, workspace, Archive and associated utilities,

b) Medical devices, process equipment (both hard ware and software), technical and supply/ utilities.

c) Supporting services, such as transport or communication (WHO requirements).

5.6.4 Leadership

The goal of leadership function is for the hospital's leader to provide the framework for planning, directing, coordinating, providing and improvement health care services that are responsive to community and patient needs and that improve patient health out comes. To achieve the goal of leader ship function, the following shall be performed:-

a) Planning for services through setting a mission statement that is reflected in long range, strategic, and operational plans, resource allocation, and hospital policies.

b) Directing services, through direct staff patient care and support services commensurate with the scope of services offered.

c) Implementing and coordinating services. Leadership integrates patient care and support services throughout the hospital.

d) Improving services, leadership establishes expectations and plans, and manages processes to measure, assess, and improve the performance of the hospital's governance, management, clinical, and support processes (See appendix A fig. A6).

5.6.4.1 Empowerment- encouraging effective employee participation

For effective leadership it is necessary for management to get very close to the employees. They shall develop effective communication- up, down and across the organization–and take action on what is communicated; and they should encourage good communications between all suppliers and patients.

5.6.5 Work environment

The hospital shall determine and manage the work environment needed to achieve excellent service and patient care.

5.7 Process management

5.7.1 Planning of process services

The hospital shall plan and develop the process needed for patient care. Planning of patient care services shall be consistent with the

requirements of the other processes of quality management system (See 5.4.1). In planning for patient care processes, the hospital shall determine the followings as appropriate:

a) Quality objectives and requirements for the patient care services.

b) The need to establish, processes, documents, and provide resources specific to the services;

c) Records needed to provide evidence that processes and patient care services meet requirements.

The out put of this planning shall be in a form suitable for the hospital's methods of operations.

5.7.1.1 Hospital planning standards

Hospital planning standards shall ensure that:

a) Leadership provides for organizational planning

b) Planning includes setting a mission, a vision and values for the organization and providing the strategic, operational, programmatic, and other plans and polices to achieve the mission and vision.

c) Planning addresses at least those important patient care and organization wide functions.

5.7.1.2 The planning evidence performance

The planning evidence performance shall provide that:

a) Organizational chart (either for the individual organizations or multi-hospital system).

b) A contract, written agreement, or a description of the leader's responsibility and authority.

c) Meeting minutes that describe organization leader's participation in meeting with corporate level of the system

d) Medical staff by laws, rules, and regulations.

e) Governing body by laws, rules and regulations.

5.7.1.3 Design of the process

Hospitals are often presented with a need or an opportunity to establish new services, occupy a new facility, or significantly change existing functions or processes. It is thus always a goal to design effective processes. The newly designed process shall be based on:

a) The organization mission, vision, and plans;

b) The needs and expectations of patients, staff, and others;

c) Up- to data source of information about design of processes; and

d) The performance of the processes and their out comes in other hospitals (such as information from reference database) (See appendix A fig. A7).

5.7.2 Assessment of patient

Qualified individuals assess each patient's need for care. These assessments continue through out the patient contact with the hospital. The goal of this important function is to determine care through assessment of each patient's needs. To achieve this goal, the following process shall be performed:

a) Data must be collected to assess the patient needs;

b) These data must be analyzed to create the information necessary to decide the approach to meet care need; and

c) Decision must be made regarding patient care based on analysis of information (See appendix A fig. A8).

5.7.2.1 Initial assessment of patient

When the patient enters the setting or service, information is gathered to identify the reason(s) that brings him or her to the hospital. This information is defined by the hospital's emergent needs and the setting in which the patient seeks care. Initial assessment shall determine the following:

a) Each patient's physical, psychological, and social status is assessed that, determine the need of care, the type of care to be provided, and the need of any further assessment.

b) The scope and intensity of any further assessment are determined by: The patient's diagnosis; the care setting; the patient's desire for care; and the patient's response to any pervious care.

5.7.2.2 Pathology and clinical laboratory services

The hospital shall:

a) Pathology and clinical laboratory services and consultation are regularly and conveniently available to meet the needs of individuals served by the hospital, as determined by its medical staff.

b) Provision is made, either on the premises or in a reference/ contract laboratory, for prompt performance of adequate examinations in the fields of anatomic pathology, hematology, chemistry, microbiology, clinical microscopy, parasitological, immune hematology, serology, and, as it relates to the pathology and clinical laboratory services.

5.7.2.3 Reassessment

There is a process designed to ensure that the patient's status is periodically reviewed so care decisions remain appropriate. This review process shall be determined that each patient is reassessed:

a) At regularly specified times related to the patient's treatment;

b) To determine the patient's response to treatment;

c) When a significant change occurs in the patient condition's; and

d) When a significant change occurs in the patient's diagnosis.

5.7.2.4 Care decision

Care decisions shall be based on:

a) Information a generated through the analysis of assessment data is integrated to identify and prioritize the patient's needs for care.

b) Identified patient needs and on care priorities.

5.7.2.5 Structures supporting the assessment of patients

To consistently assess patient need, the hospital shall define in writing the scope of assessments to be performed by each clinical discipline to conform to its scope of practice, stale licensure laws, applicable

regulations, and/or certification. Assessment activities shall be defined in policies and procedures, protocols, or other such documented guidelines, and those documents define.

a) The data gathered to assess patient needs;

b) The scope of assessment by each discipline;

c) The mechanisms designed to analyze these data to determine the approach to meet patient care needs; and

d) The framework for decision making based on the analysis of the information.

5.7.3 Care of patients

The goal of the care function is to provide individualized, planned, and appropriate care in settings that support the patient's care, treatment, and rehabilitation goals and specific needs. The activities described above will carried out by a variety of medical, nursing, pharmacy, dietetics, rehabilitation and other types of providers. Each provider's particular role and responsibility will be determined by his or her professional skills, competence, and credentials; by the component of care, treatment, and rehabilitation being provided; and by relevant licensure, certification, regulation, privileges, and scope of practice and/or job description.

The activities in this function shall focus on the following:-

a) Formulation, maintenance, and support of a patient specific plan for care, treatment and rehabilitation.

c) Implementation of planned care, treatment and rehabilitation.

d) Monitoring the patient's response to the care, treatment, and rehabilitation provided, the actions for interventions taken, and/or out comes of the care provided.

e) Modification of planned care, treatment and rehabilitation is based on reassessment, the patient's need for further care, and the achievement of individual goal.

f) Care, treatment and rehabilitation necessary after the patient's discharge from the hospital are planned and coordinated.

Note: All interventions respect and encourage the patient's ability to make choices; to develop and maintain a sense of achievement; and to choose to continue or modify his or her participation in care, treatment and rehabilitation (See appendix A fig. A9)

5.7.3.1 Planning and providing care

The care, treatment and rehabilitation planning process shall ensure that care is appropriate to the patient's specific needs and the severity level of his or her disease, condition, impairment or disability.

Evidence of performance shall contain:

a) Policies and procedures defining assessment and care planning requirements; system for assigning severity level or risk category; clinical practice guide line, protocols; other care planning tools.

b) Medical records.

5.7.3.2 Anesthesia care

In applying this kind of care in the hospital, the medical staff shall specifically define the terms "reasonable expectation" and "significant

percentage of a group patients". The defined care needs of the patient undergoing operative and other invasive procedures requiring anesthesia as the basis for planning and communication among care providers. The standards shall include:

a) A pre-anesthesia assessment of the patient's preformed before operative and other invasive procedure(s).

b) A plan for anesthesia and operative and other invasive procedure are developed.

5.7.3.3 Medication use

The hospital shall be providing policies and procedures in standard related to:

a) Prescribing or ordering

b) Preparation and dispensing

c) Administration, and

d) Monitoring the medication's effect on the patient.

The hospital shall have a functioning mechanism designed to ensure the safe use of medication.

5.7.3.4 Nutrition care

The hospital shall provide appropriate nutrition care, which includes food and nutrition therapy, in a timely and effective manner and using all resources to provide this care efficiently. Nutrition care shall consist of the following processes:

a) Screening, assessing and reassessing needs; as appropriate

b) Developing the plan of nutrition therapy as appropriate;

c) Prescribing or ordering;

d) Preparing and distributing or administering; and

e) Monitoring the patient relative to the nutrition care process.

5.7.3.5 Operative and invasive procedures

The hospital shall provide standards focus on providing operative and other invasive procedures necessary for: (a diagnosis; the cure of palliation of disease, impairment or disability; the restoration or improvement of function; and relive of symptoms.) The Processes described in these standards related to:

a) Selecting appropriate procedures,

b) Preparing the patient for the procedures

c) Performing the procedure and monitoring the patient, and

d) Providing post procedure care.

The medical staff shall define the scope an appropriate assessment for both emergency and non emergent operative and other invasive procedures in accordance with the requirements in the “Assessment of patients”.

5.7.3.6 Rehabilitation care and service

The hospital provide rehabilitation services, shall be based on assessment, as appropriate, of the patient’s physical, cognitive, behavioral, communicative, emotional, pharmacological, and social needs, are delivered in accordance with an individualized written plan for rehabilitation developed by qualified professionals.

5.7.4 Nursing

To promote patient quality care, nursing services including nursing care, are provided on a continuous basis, to those patient requiring such care and service. Nursing service monitor each patient's, status and coordinate the provision of nursing care while assisting other professionals in implementing their plans of care. To accomplish this goal, the hospital shall provide a sufficient number of qualified nursing staff members to:

a- Assess the patient's nursing care needs;

b- A plan and provide nursing care interventions;

c- Prevent complications and promote improvement in the patient's comfort and weakness; and

d- Alert other care professionals to the patient's condition, as appropriate.

5.7.5 Management of the environment of care

Hospital management of the environment of care function is to provide a functional and safe environment for patient and other individuals served by or providing services in the hospital. For this function to operate effectively, the following five processes shall be performed well and continuously measured, assed and improved.

a) Plan and design for the environment of care in a manner consistent with the mission and vision of the health care organization;

b) All staff oriented and educated regarding their individual and collective roles in using the environment to effectively support patient care;

c) Performance standard are developed to measure individual performance with record to carrying out each individual's job responsibilities specific to effectively and safety managing the environment of care and to measure and assess hospital performance in maintaining and striving to continuously improve the total environment of care; and

d) the hospital's plan for the environment of care must give due consideration to the needs of the patient's and individuals served by the hospital, as well as to those members of the staff working directly with the individuals served by the hospital and those supporting the other functions of the hospital.

The emphasis is on hospital design and implementation in seven areas: (Safety; security; hazardous material/ waste; emergency preparedness; life safety; medical equipment; and utility systems).

5.7.5.1 Social environment

Consistent with the hospital's mission and needs and characteristics of the patient population served, the hospital shall established a social environment that support the basic mission and services by providing, as appropriate to the setting and the patient condition:

a) Appropriate space to support the services;

b) An environment that fosters appositive self- image for the patient and preserves their human dignity;

c) Adequate privacy to reflect sensitivity and respect for the patient;

d) Activities to support the development and maintenance of the patient's interest, skills and opportunities for personal growth, and

e) Dissemination and enforcement of an organization wide smoking policy prohibits the use of smoking materials through out the hospital's building(s).

5.7.6 Surveillance, prevention and control of infection

The hospital shall function coordinating process in place to reduce the risks of endemic (that is, common cause) and epidemic (that is, special cause) nosocomial infection in patients and health care workers. The scope function is broad: it includes activities at the direct patient care level and at the patient care support level to reduce risk for nosocomial infections in patients. Activities are also designed to reduce risk for transmission of infections among patients, employee, medical staff members, contract service workers, volunteers, and visitors. The functions coordinate all activities related to surveillance, prevention, and control of nosocomial infections. And also links with support system to reduce the risks of infection from the environment, including food and water resources.

Note: The surveillance, prevention and control of infection function should interface with local health department to ensure continuity of care, appropriate follow up, and control of infection.

To ensure optimal provision of services, the management of the infection control process is assigned to a qualified individual(s). The evidence of performance shall provide:

a) Document review of policies and procedures of the organization's demographic (geographic, volume of patient encounters, patient population served, clinical focus, and numbers of employees) and definitions of epidemiologically important issues;

b) Record for training and continuing education;

c) Scope of responsibility statement in by laws, rules, or regulations; and

d) Documentation or other mechanism relating to the following: (definition of nosocomial infection, review case finding, defined employee health issue, reporting to the public health agencies, reporting of employee illness of epidemiological significance.

5.8 Improving organizational performance

5.8.1 General

It identifies the connection between the hospital performance and judgment about quality. It shifts primary focus from the performance of individuals to the performance of hospital's systems and processes. The goal of this improving hospital performance function, is that the hospital shall design processes will systematically measure, assesses and improves its performance to improve patient health out comes.

It should be evident that:

a) Performance is what is done and how well done to provide care.

b) The level of performance in health care is:

- The degree to which what is done is efficacious and appropriate for the individual patient; and

- The degree to which it is available in a timely manner to patient who need it, effective, continuous, with other care and care providers, safe, efficient, and caring and respectful of the patient. These characteristic of what is done and how it is done are called "dimensions of performance":

a) The degree to which hospital does the right things and does them well is influenced strongly by its design and operation of a number of important functions. (See 5.7.1.3)

b) Patient and others judge the quality of the health care, based on patient health out comes (and sometimes on their perceptions of what was done and how it was done).

c) Patients and others may also judge the value of the health care by comparing their judgments about quality with the coast of health care.

5.8.2 Monitoring and measurement

5.8.2.1 Patient satisfaction

As one of the measurements of the performance of the quality management system, the hospital shall monitor information relating to patient perception as to whether the hospital has met patient's need. The methods for obtaining and using this information shall be determined.

5.8.2.2 Internal audit

The hospital shall conduct internal audits at planned intervals to determine whether the quality management system:

a) Conform to the planned arrangement (see 5.7.1) to the requirements of the standards and to the quality management system requirements established by the hospital; and

b) Is effectively implemented and maintained

- An audit program shall be planned, taking into consideration the status and importance of the process and areas to be audit, as well as the result of previous audits.

-The audit criteria, scope, frequency and methods shall be defined. Selection of auditors and conduct of audit shall ensure objectivity and impartiality of the audit processes.

-Auditors shall not audit their own work.

- The responsibilities and requirements for planning and conducting audits, and for reporting results and maintaining records see (5.4.2.5) shall be defined in a documented procedure.

- The management responsible for the area being audited shall ensure that actions are taken without undue delay to eliminate weakness and their causes. Follow- up activities shall include the verification of the action taken.

5.8.2.3 Measurement

Performance measurement is at the heart of all performance improvement activities. Once the existing level of performance is know, the hospital can make informed judgments about the stability of existing process, identify opportunities for in credential improvements in processes, identify the need to redesign processes, and decide if improvement or redesign of processes met objectives.

Measurement, the collection of data shall focuses simultaneously on multiple subjects, including:

a) Both process and out comes;
b) A comprehensive set of performance measures (indicator)
c) High- risk, high- volume, and/or problem –prone processes including operative and other invasive procedures, the use of medications, and the use of blood and blood component; and

d) Other sensors of performance, such as

- Needs, expectations and feed back of patients and others
- Results of ongoing activities designed to control infections,
- Safety of the care environment, and
- Utilization management and risk management finding data are collected both for priority issues chosen for improvement and as part of continuing measurement. Collected data shall:

a) The needs and expectations of patients and others and the degree to which these needs and expectations have been met;

b) These data related to the relevant dimensions of performance; and

c) Its staff views regarding current performance and opportunities for improvement.

Note: The frequency of measurement is related to the process or outcomes measured and the purpose of measurement, thus measurement can occur at one point in time or be reported over time.

5.8.3 Assessment and analysis of data

The hospital shall determine collect and analysis appropriate data to assess and demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the effectiveness of the quality management system can be made.

The hospital shall have a systematic process to assess collected data in order to determine:

a) Whether design specifications for new processes were met;

b) Level of performance and stability of important existing processes,

c) Priorities of possible improvement of existing processes;

d) Actions to improve the performance of processes;

e) Whether changes in the processes result in improvement.

f) Patient satisfaction (see 5.8.2.1)

g) Suppliers

Note: when operating, the assessment process is interdisciplinary and interdepartmental as appropriate for the process and/or out come under view.

5.8.4 Improvement

5.8.4.1 Continual Improvement

Improving the performance of existing processes and improving outcomes are desirable result of hospital performance improvement function. Designing a new process, redesigning an existing process, or deciding to act on an opportunity for incremental improvement in an existing process, the hospital shall have a systematic approach which is one that includes:

a) Identifying a potential improvement.

b) Testing the strategy to change,

c) Assessing data from the test to determine if a change product improved performance;

d) Implementing the improvement strategy system wide;

e) Records the results of improvement action taken

f) Reviewing the improvement action taken.

5.8.4.2 Corrective action

The hospital shall take action to eliminate the cause of errors and problems in order to prevent recurrence. A documented procedure shall be established to define requirements for:

a) Reviewing problems (including patient complaints),

b) Determining the causes of problems and errors,

c) Evaluating the need for action to ensure that errors do not recur,

d) Determining and implementing action needed,

e) Records of the results of action taken, and

f) Reviewing corrective taken.

5.8.4.3 Prevention action

The hospital shall determine action to eliminate the causes of potential errors in order to prevent occurrence. Preventive action shall be appropriate to the effects of potential problems. A documented procedure shall be established to define requirements for:

a) Determining potential nonconformities and their causes,

b) Evaluating the need for action to prevent occurrence of problems and errors.

c) Determining and implementing action needed,

d) Records of results of action taken, and

e) Reviewing preventive action take

Chapter Six

Conclusion and Recommendations

6.1 Conclusion

The majority of working hospitals in the city of Nablus did not have stand operational system that defines all types of processes in the profession. As a result, such settings lack performance measures and measurement systems which play an important role reflected on the quality of offered services. The current study shows how respondents rate different aspects of access to care, and contributes to a further understanding of determinants of perceived access. Another remarkable feature that emerges is that, despite the fact that quality is one of the key factors in hospital management nowadays, it is an area in which in the sample show a strong lack of concern. None of the hospitals surveyed can be said to have an established quality policy, though in some cases a high level of commitment in this area can be seen on the part of the management. This is an area that requires future development, especially as far as qualities of service is concerned; less effort is needed in the areas of technology and care where levels of quality can already be considered adequate.

The study shows a direct relation ship between over all hospital delivery care processes and patient satisfaction, where patient satisfaction is directly related to the attitudes and perception of employee as they, in turn related to the hospital and its management practices.

The values and attitudes of employees are not just related to patient satisfaction. These values and attitudes also have a direct impact on over all effectiveness of the hospital. The attitudes of employees and the over all level of patients' satisfaction is considered a function of perceptions

management practices. As such, the hospital's culture and environment, as established by the management directly affect employee perception and patient satisfaction.

Quality management model represents a good way to introduce an organizational perspective into the debate on health care reform. Changes in the health care system must continue to allow professionals to assess practice guidelines, but they need also to institute new organizational principles that can respond to continual changes in the process of care.

The framework introduced in this study is based on the concept of flexibility. This framework goes beyond traditional quality assurance methods, which often focus on operating standardized procedures, to include two other dimensions; (Dimensions of performance): Doing the right thing, which include efficacy and appropriateness and doing the right thing well which include the availability, timeliness, effectiveness, continuity, safety, efficiency and the respect and caring. This framework approach would enable each hospital to position itself in this dynamic and turbulent environment, where the prevailing variables (health care demand, spending, and deregulation) are undergoing constant change.

In summary, even though traditional and novel administrative and management practices have been extended to hospital centers, much remain to be done especially for implementation of a health care quality management using specially designed models that suits our needs based on quantitative and qualitative indicators.

6.2 Recommendations

The results of the current study, suggests some useful recommendations for the strategic management of hospitals, regardless of its size and or ownership:

1- From health care management perspective, understanding the determinants of perceived access is essential for promoting patient-centered care in a managed care era.

2- It is essential that health care providers and planers to think of the quality of offered health care services to patients, patients' perceptions of access to care and factors contributing to their satisfaction. This can be achieved through monitoring programs run by concerned bodies of Ministry of Health.

3- The hospital should consider future and present needs of the society. A planned offer must be accompanied of quality component that comprises the process of health care delivery and quality of services must include both tangible and intangible elements.

4- Normally 2/3 of the budget is devoted towards meeting the payroll. Hence issues related to its size and their distributions across different health services are key components in human resources planning at both macro (to anticipate the number of necessary workers, the effective services demand in the preset temporary horizon and the capacity of manipulating the necessary resources, and micro (functions assignment and tasks to the personal previously stipulated) levels.

5- Traditionally the hospitals have been organized on a line-basis, according to various health functions. Modern organizational structure are intended to satisfy more business-line concerns, relate to the hospital's corporate strategy and more in tune to the new hospitals specialized structure and mandate. Specialized mandates include, day-surgery, home-care planning, outsourcing of assistance and diagnosis activities (magnetic resonance, transplants) and support activities (laundry, housekeeping, food-service, administration) and also the creation of special units devoted to detoxification of cancer treatment.

6- Macro level manager's commitment to quality improvement as a policy through adoption of quality improvement methodology is very important. They should view improvement through focusing on processes in order to reduce the costs and wastes of health services in order to increase the efficiency and effectiveness of processes which ultimately guarantee high quality healthcare.

7- Quality improvement in Palestine is possible and is potentially successful considering the current professional and technical perspectives.

8- Quality improvement approach can make great success in the Palestinian health sector.

9- The mission statement is very important for it serves to direct the team in deciding work content and process.

10- Consumer (internal & external) views about the health services are very important to consider when intending any improvement in the health sector.

11- Team approach is another important basic principle for managing quality in health care organizations. This approach allows productive interaction among employees and gives opportunities to address problems smartly, through cross learning and knowledge transfer, and internal communications.

12- It is necessary to spread the quality improvement principles throughout every health organization and to increase the awareness of people of the mechanisms of quality improvement activities along with raising the viable potential of the Quality Improvement

6.3 Recommendation for future researches

Although many more issues remain to be investigated, this study consolidated a strong evidence that to be successful in long term. Health care organizations must adopt a quality management system that will provide the substance, form and clarity necessary to help hospitals meet their new public accountabilities. And that more efforts are yet to make in this direction. The following issues are recommended for future studies:

-Developing hospital efficiency-cost control measures.

-Examining differences between in-patient and out-patient area represents another area to study.

- Another interesting study to perform a comparative analysis between the result in this study and those in other countries.

-Replication studies should identify groups of hospitals using similar quality management model and analyze the impact of theses on hospital performance.

References

Abdeen, Z. (1997). Palestinian Health Strategy – The challenges ahead. Jerusalem Sustainable Development project. 33pp.

Abdellatif, A. (2002). **Assessment of the Implementation of TQM at Service Non- Governmental Organizations in West Bank.** Un published Master Thesis, Al-Quds University.

Ajluni, A. (1999). The Impact of Implementing ISO 9000 on Financial Performance of Jordan Public Shareholding Companies. Paper submitted to ISO 9000 Scientific Meeting, Amman.

Alexander S. Preker, Aprin Harding, (2003). **Innovation in Health Service Delivery,** Washington, the World Bank.

Al-Ghanim. A. (2003). The impact of Implementing Quality Management Principle of ISO 9000 on Business Effectiveness, *An-Najah Univ. J. Res. (N. Sc.), Vol. 17 (1).*

Barghouthi, M. (1992). **Palestinian Health: To Wards a Healthy Development Strategy in West Bank and Gaza strip. Brussels: Presented at the ECCP-NENGOOT** Conference, 5pp.

Barghouthi, M. and Lennock, J. (1997). **Health in Palestine: "Potential and Challenges".** MAS Discussion Papers. Jerusalem and Rammallah: MAS, 72pp.

Berwick, D. M, (1989). Continuous Improvement as an Ideal in Health Care. *New Engl. J. Med. 320*: 53-57.

Birzeit University Community Health Unit (1987). **A Review of Health Standards and Services in the West Bank and Gaza Strip**. Birzeit: BZUCHU, 33pp.

Burda, D. (1991). Study Rates U.S Hospitals vs. Other Nations, Industries, *Modern Health care 21. No. 40*. 36-38.

Cartin, T. J (1993). Principles and Practices of T.Q.M, USA, *ASQC Quality Press.*

Cleverley W. and Harvey R. (1992a). Critical Strategies for successful rural hospitals. *Health Care Management Review; 17 (1)*: 27-33.

Cleverley W., Harvey R. (1992b). Competitive Strategy for successful hospital management. *Hospital and Health services Administration; 37 (1):* 53-69.

Cody M, F. and Chebaro, H. Z. (1995). Predicting hospital profitability in short- term general Community hospitals. *Health Care Management Review 1995; 20 (3):* 77-87.

Crosby, R. (1995). **Quality is free: The Art of Making Quality certain**, McGraw Hill Publishing. London.

Cunningham, B. and Ho, J. (1996). Assessing the Impact of Total Quality Management Related Program: A Singaporean Case, *Quality Management Journal*, 3(4).

David, H. (1999). **I 9000 Quality System Hand book**, Butter worth-Heinemann Ltd., Oxford.

Deming, W. (1986). **Out of the Crisis**, Cambridge University Press, Cambridge.

Du Bois, G.C. (1990). **The Business of Medical Practice.** Medicin – Practice-Canada. I .Title. Copp. Clark Pitman Ltd.

Dulworth, M; Landen, D. and Usilaner, B. (1990). Employee Involvement Systems in U.S. Corporations: Right Objectives, Wrong Strategies. *National Productivity Review, Vol. 9,* No. 2.

Eastaugh S. (1992). Hospital Strategy and financial performance. *Health Care Management Review, 7 (3)*: 19-31.

Etienne M. (1998). Beyond Quality Management Methods: Meeting the Challenges of Health Care Reform. *International Journal for Quality in Health Care, Vol.9, No 3,* pp. 189-192, 1997.

Evans, J. R. (2004). Total Quality Management- American Management Association. Adopted from world wide web: (http://www.flexstudy.com online Training and Development/course in Total Quality Management.

Farid, Z. (1994). Potential of Applying TQM in Egyptian Garment and Textile Industries, *Commercial Research Magazine, (Majallet Albohouth Altejareiah*) *16 (1)*.

Foster, S. T. (2001). **Managing Quality,** An Integrative Approach. Second Edition. United States of America. Microsoft and Windows.

Gapenski, L.; Vogel, W. B. and Lan O. B. (1993). The determinants of hospital profitability. *Hospital and Hospital Services Administration; 38 (1)*: 63-80.

Gilliard, D. J. (1999). **A structural equation approach top strategic group**, competitive Strategies and performance: a hospital analysis. Dissertation, Arizona state University.

Ginna G, Young, G, Beekun R. (1995). Business Strategy and Financial Structure: an empirical analysis of a cute care hospitals. *Hospital and Health Services Administration 1995; 40 (2)*: 191-209.

Hajj A. S. (1997). **Practical Implementation of ISO 9000 Requirements at the United Industrial** Group. Unpublished Master Thesis, University of Jordan.

Hrais S. (2000). "Effect of Implementation ISO 9000 on Palestine Manufacturing Companies. Case. Study, Unpublished Master Thesis, Al-Quds University.

Hughes, P. and Ferrett, E.D. (2003). **Introduction to Health and Safety at Work**. Haly.

ISO 9001:2000. **Quality Management System Requirements-** Guide lines for performance improvements. British standard.

Joint Commission on Accreditation of Healthcare Organization (1994). United States of America. Retrieved from world wide web: www.jcaho.org.

Juran, J. M., and Gryna, J. (1997). Quality Control Hand book, 5th Edition. McGraw.

Kannan, V. K.; Tan, R. H and Ghosh, S. (1999). Tools and Techniques of Quality Man Management: An Empirical Investigation of Their Impact on Performance, *Quality Management Journal, 6 (3).*

Kaplan R. S. and Norton D.P. (1992). The Balanced Scorecard- Measures that drive performance. *Harvard Business Review (4): 71-79.*

Kumar, S. and Gupta, Y.P (1993). Statistical Process Control at Motorola's Austin Assembly Plant, *Interface 23,* No.2.

Kyan, M. J. (2000). Momentum To Improve Patient Care Grows, *Quality Progress,* P. 130.

Lamont, B. and Marlin D, J. H.. (1993). Porter's generic strategies, discontinuous environments, and performance: a longitudinal study of changing strategies in the hospital industry. *Health services Research; 28 (5):* 623-40.

Lang Land- Or ban B; Gapenski L. and Vogel W.B. (1996). Difference in Characteristics of hospitals with sustained high and sustained low profitability. *Hospital and Hospital Services Administration; 41 (3):* 385-99.

Madorrian, C. G. and Val Pardo, I. (2004). Strategic and Performance in hospital, *Healthy policy, 67,* 1-13.

Massoud, M. R. (1995). Palestine: Council of Health. Quality of Health Care in Palestine: An Analysis. West Bank and Gaza Strip, 7pp.

Massoud, R. M. (1993). Total Quality Management and Health Care, the middle East conference on the Implementation of Total Quality Management (T.Q.M) system in medical centers, Jerusalem.

Ministry of Health (1994). *Palestinian Delegation Policy Statement.* Rome January 25-27. Dr. Fathi Arafat.

Motwani, J.; Kumar A., and Cheng, C.H. (1996). A Road Map to Implement ISO 9000, *International Journal of Quality and Reliability Management, 13 (1).*

National Strategic Health Plan- Palestine (1999-2003). Gaza: PNA, 202pp.

Oakland, J. S. (2000). **Total quality Management:** text with cases- 2nd ed. London.

Obaidat, S. and Al-Kudi, M. (1998). Factors Affecting Quality: Analytical study on Printing Industrial Sector in Jordan, Dirasat: *Management Science, 25 (1).*

Palestine Council of Health (1994). Quality of Health Care Unit. The Strategic plan for Quality of Health Care in Palestine, Ramallah: Palestinian Ministry of Health, 79 pp.

Palestine Ministry of Health (2003). State of Health Indicators in Palestine (HMIS).

Palestinian Ministry of Health (1995). The Interim Action Plan: *Addressing Immediate Health Needs for Palestinian*, (1 January, 1994- 31 December, 1995).

Palestinian Ministry of Health (1996). Health Management Training Needs Assessment- West Bank and Gaza Strip. Ramallah: Palestinian National Authority, 53 pp.

Palestinian Ministry of Health, (1994). The Palestinian Health services in West Bank and Gaza Strip, facts and figures.

Perigord, M. (1990). **Achieving Total Quality Management**: A program for action (Productivity Press, Cambridge.

Pryor, L. S. (1989). Benchmarking: A Self-Improvement Strategy. The *Journal of Business Strategy, November/December* .

Schein, L. (1990). "The Road to Total Quality: Views of Industry Experts". *Conference Board Research Bulletin, No. 239.*

Schlenker, J. A. (1988). Total Quality Management An Overview: United States General Accounting Office. Adopted from world wide web: http://www.hrzone.com/topics/tqm.html

Scholtes, P. R. (1998). **The Team Handbook: How to Use Teams to Improve Quality**. Joiner Associates, Inc., USA.

Shajrawi, A. (1996). **ISO 9000 Implementation Experience at the Arab Company for steel pipe Industries**. Un published Master Thesis, University of Jordan.

Shapleigh, C. (1991). Patient Data Critical to Hospital- Wide Quality, *Health Care Financial Management 45,* No. 6, 80-83.

Stormy, F. (2003). **Organization Development for facility Managers.** United States of America.

Tarawneh, M. (2000). **Benefits and Difficulties**: An Applied study on Jordanian. *Industrial Companies", Dirasat: Management Science, 27 (2).*

The Israel National Institute for Health Policy and Health Services Research (2000). The Health system in next decade. *Congress at the Dead* see, June. 14-15

Umiker, W. O. (1988). "Management Skills for the new health care Supervisor", Health Service Administration, United States of America.

United Nation Report on Palestinian Economy (1999). Donors' Contributions and Investments. Retrieved from world wide web: www.unsco.org.

United States General Accounting Office. Employee Involvement: Issues for Agencies to Consider in Designing and Implementing Programs. GAO/GGD 88-82, May, 1988.

Vansina, L. (1990). Total Quality Control: An Overall Organization Improvement Strategy. *National Productivity Review, Vol. 9.*

Venkatraman N, Ramanujan V. (1986). Measurement of business performance in strategy research: a Comparison of approaches. Academy of Management Review, 801-14.

Waterman, R. H. Jr. (1982). The Seven Elements of Strategic Fit. *Journal of Business Strategy, Vol. 2*.

WHO (1988). Collaborating Center in Health Development. Health Manpower in West Bank. A Preliminary Study. Ramallah: *Health Manpower Development Research Center*, 35 pp.

World Bank (1997). West Bank and Gaza Medium *Term Development Strategy and Public Financing Priorities for Health Sector.* Volume I: Main Report. Middle East North Africa Region: *World Bank, 47* pp.

World Bank (1997). World Bank and Gaza Medium Term Development Strategy and Public Financing Priorities for the health sector. Volume II: A annexes, Middle East and North Africa Region: World Bank, 110 Pages.

Appendix A

Appendices

Appendix A

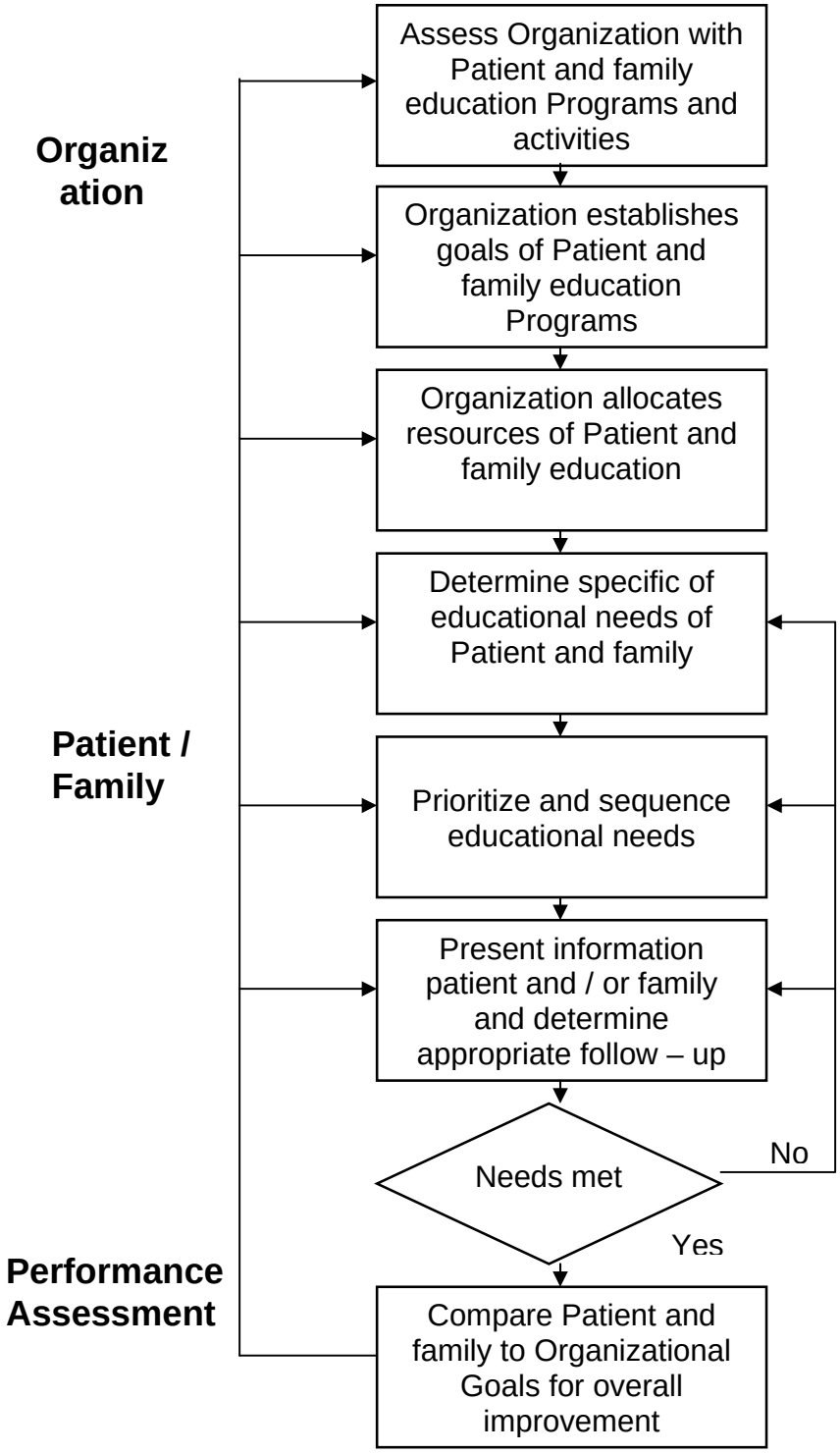


Fig. A2 Flowchart represents most of important activities and processes, particularly the risk, in the education function

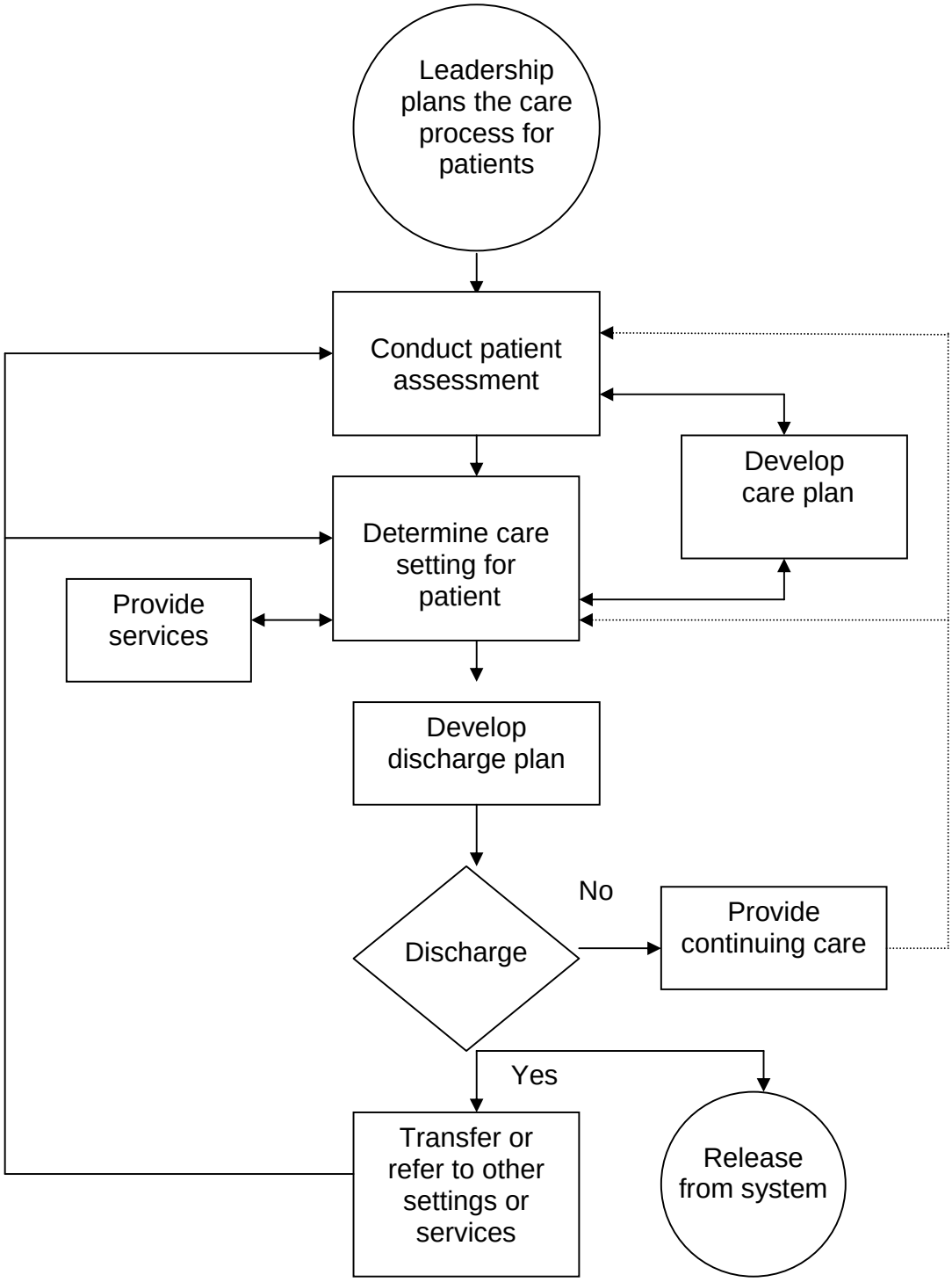


Fig. A3 Flowchart for the continuum of care function

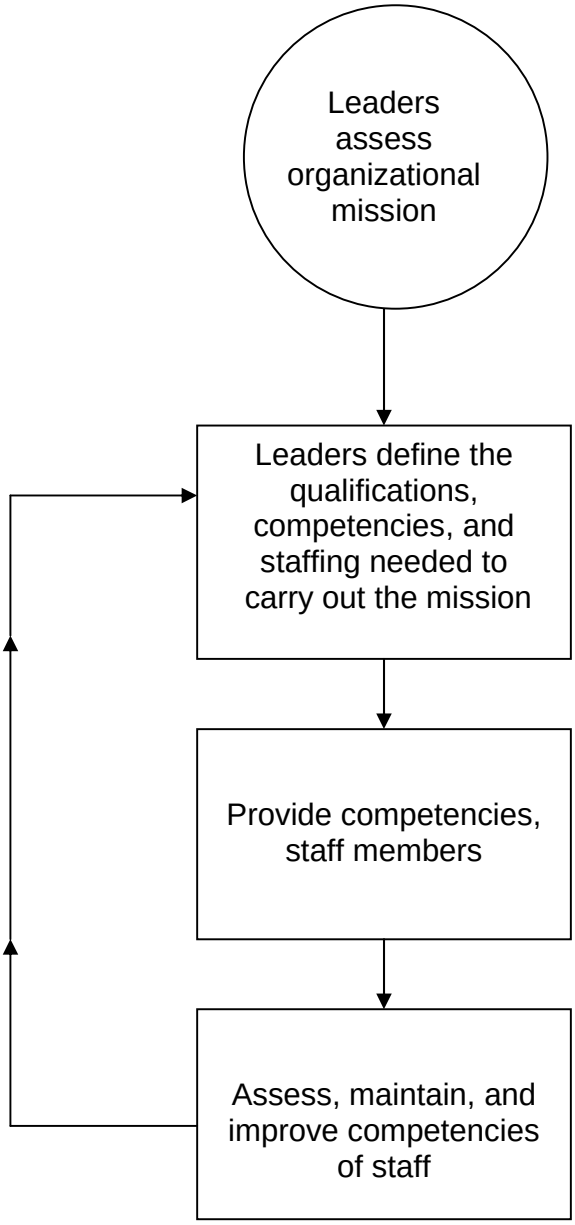


Fig. A4 Flowchart of management of human resources functions.

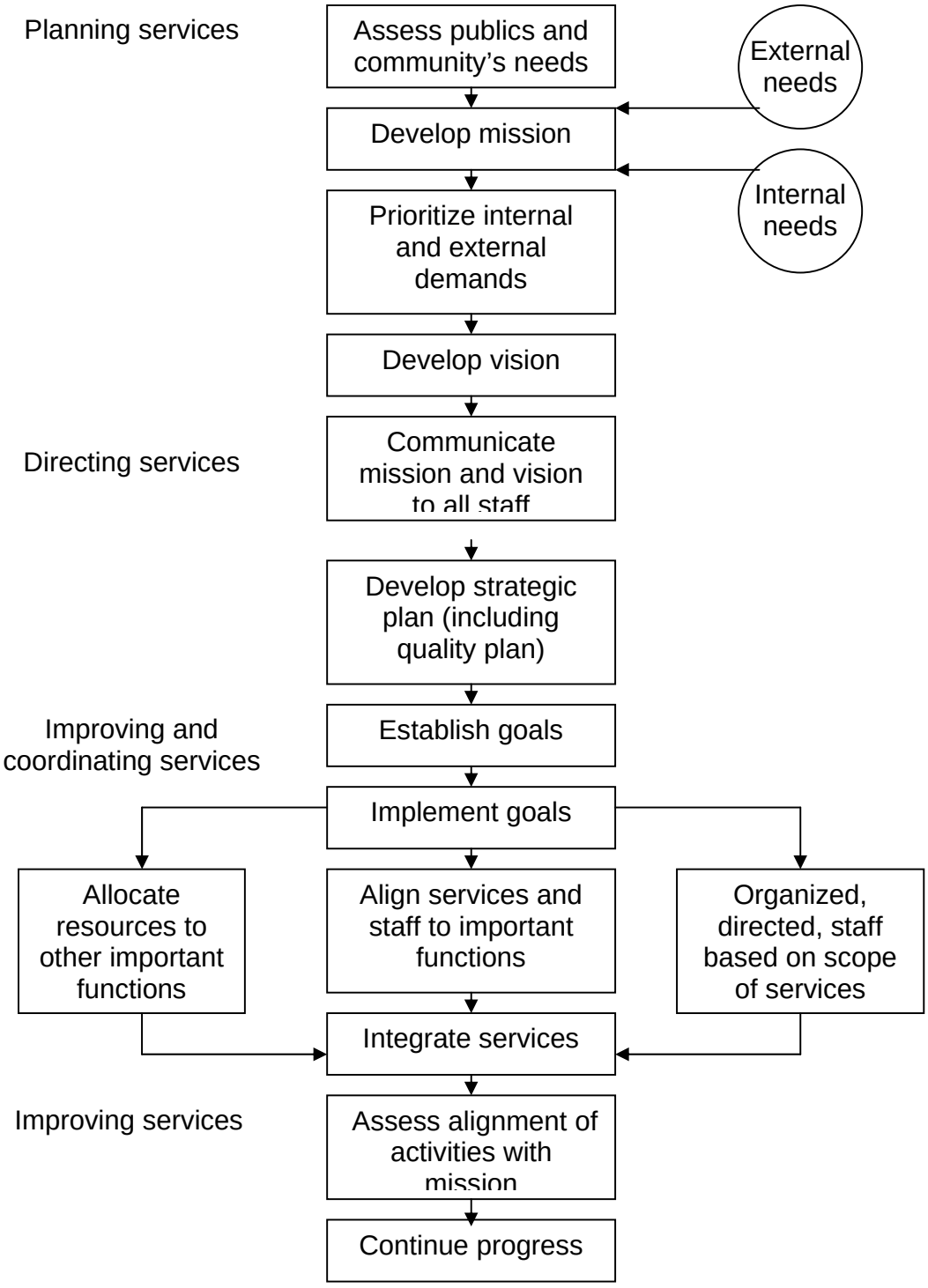


Fig. A6 Flowchart for the leadership function

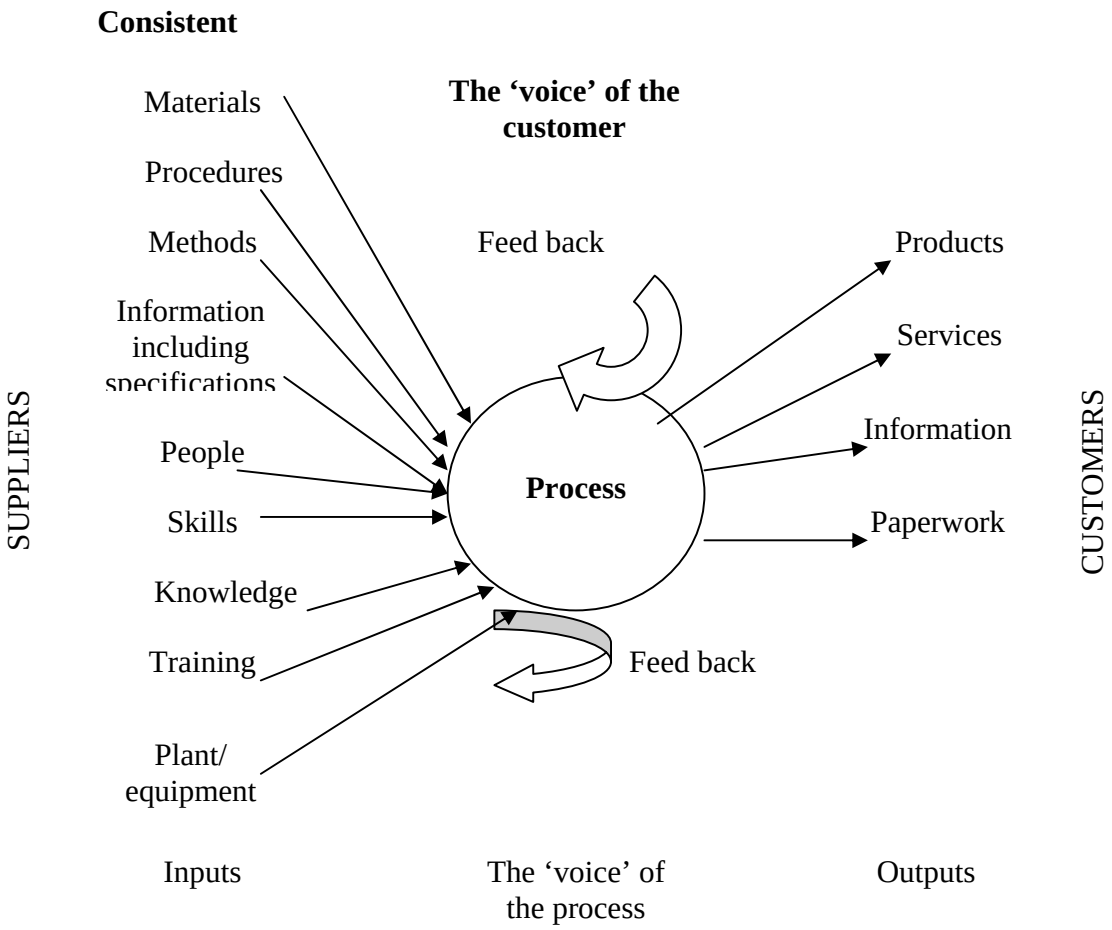


Figure A7 Flowchart for process

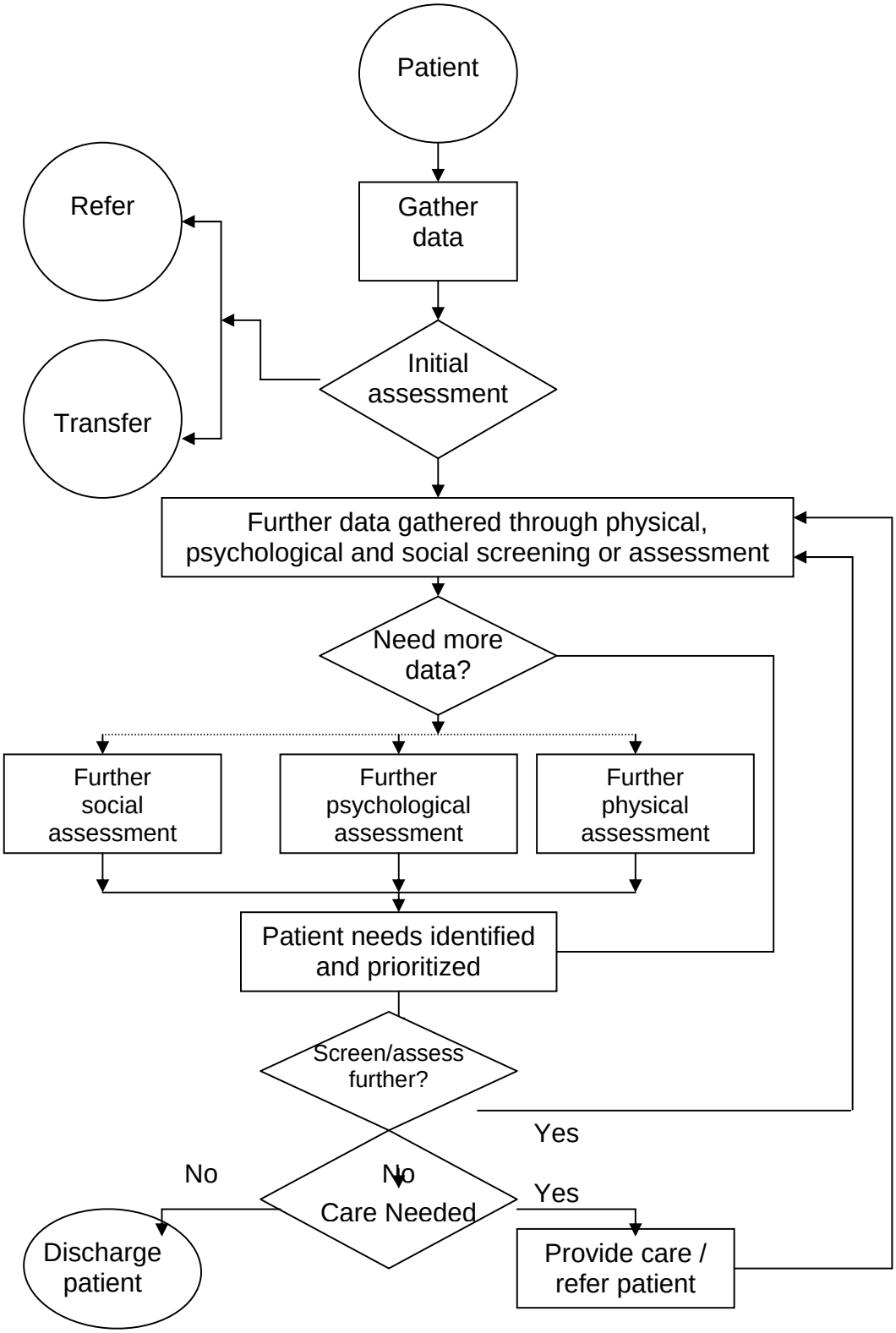


Figure A8. Flowchart for the assessment of patients function

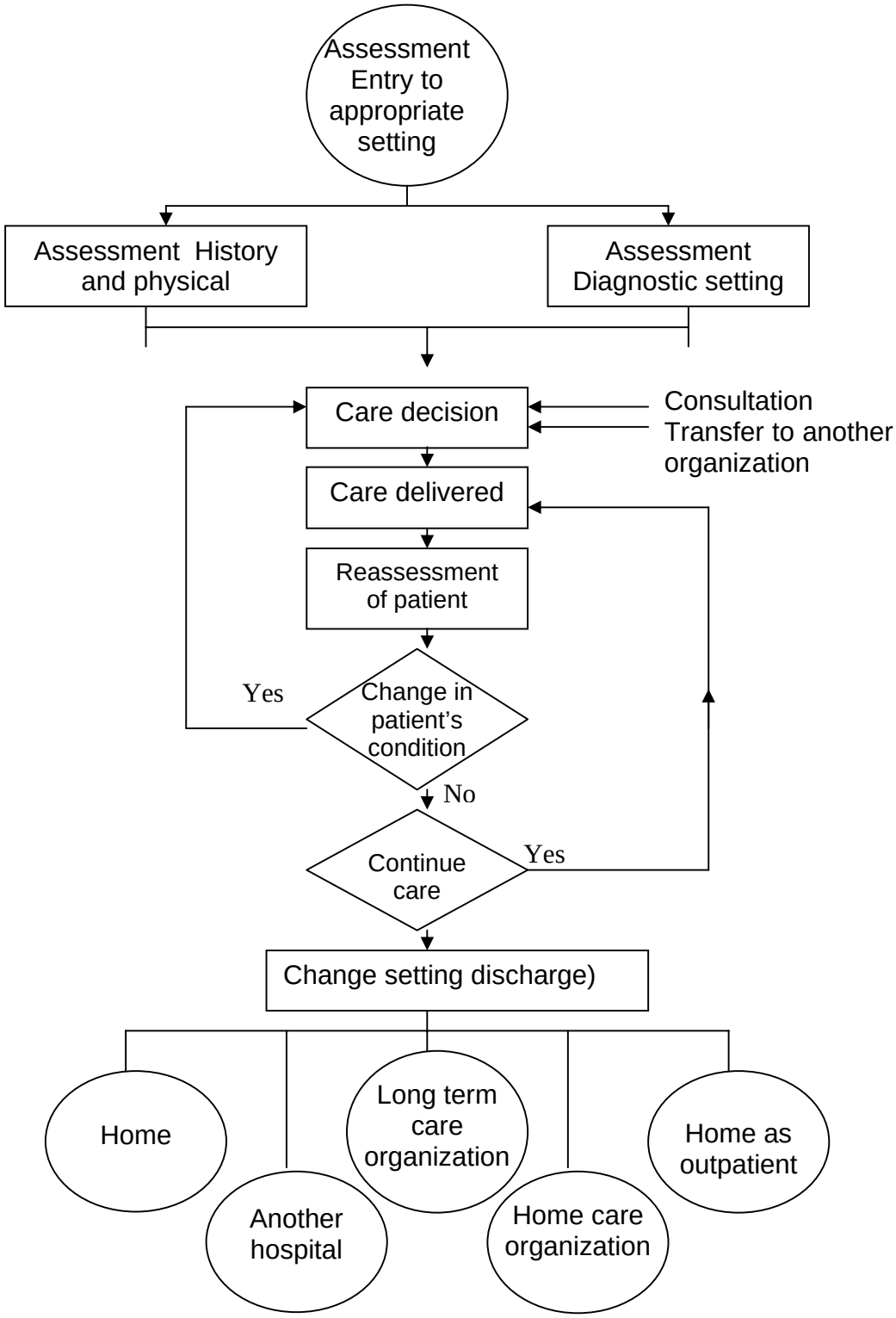


Fig. A9 Flowcharts represent important activities and processes in care of patients function.

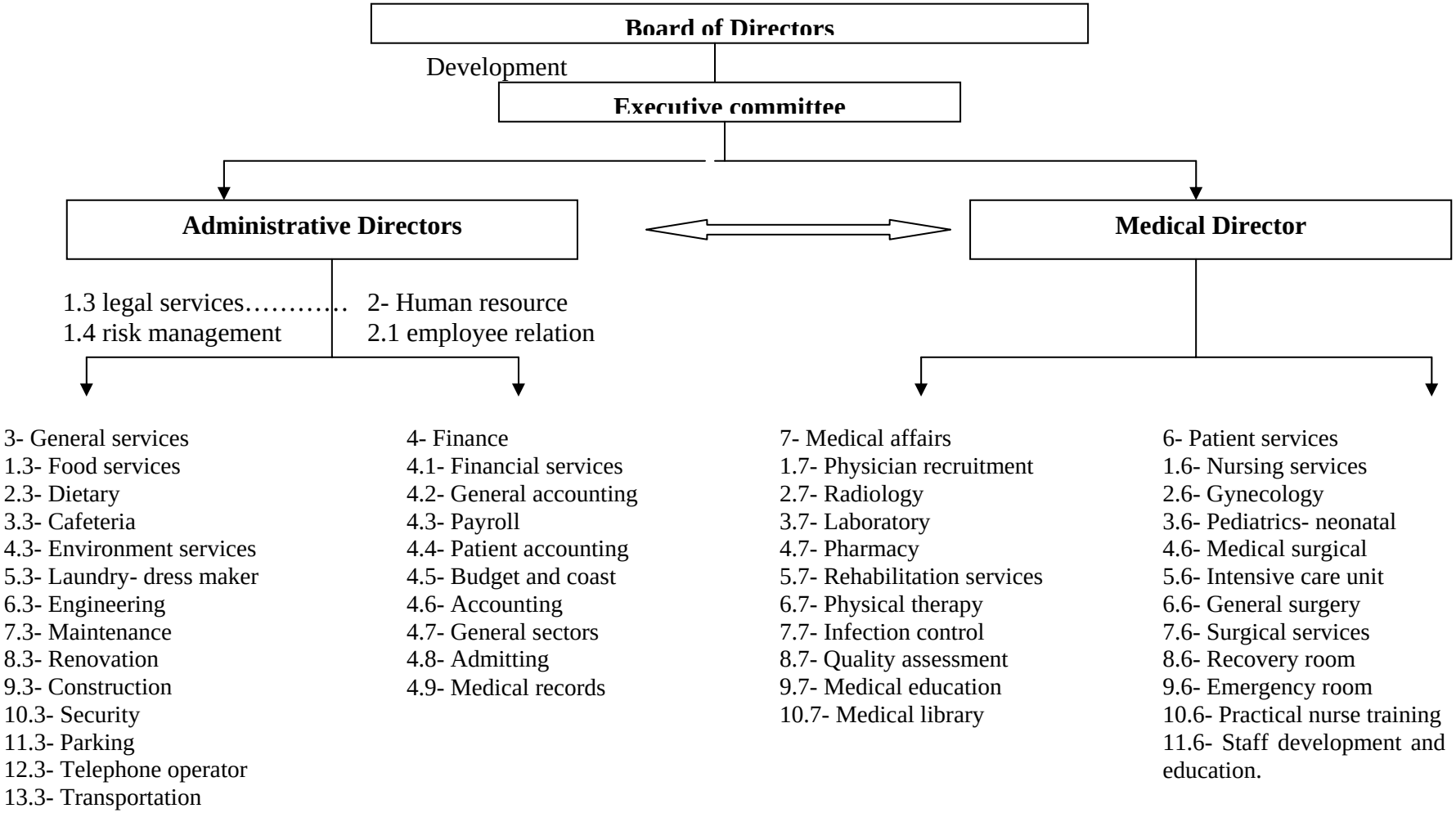


Fig. A4 Flowchart Board of Directors.

Appendix B

Health Indicators, Descriptive Statistics, Palestine 2002

Table B.1 Descriptive statistics for hospitals in Palestine.

Health Services			
No. of hospitals	76	Bed occupancy rate (%) in MOH	76.7
No. of MOH hospitals	23	No of discharged (MOH)	222,966
No. of hospital beds	4,792	No of Admissions (MOH)	224,087
No. of MOH hospital beds	2,613	Admissions/pop (100) in MOH hosp	6.5
% of MOH hospital beds of total beds	54.5	Average length of stay in MOH hosp (days)	2.8
Pop/hospital beds	723	Number of surgical operations (MOH)	76,421
Pop/ MOH hospital beds	1,326	Surgical operations per (100) persons (MOH)	2.2
Hospital bed / 10.000 pop	13.6	Visits to out patient clinics per person (MOH)	0.4
Maternity beds /10.000 woman aged 15-49 years	5.8	Visit to specialized out patient clinics/ person (MOH)	0.2
% beds (pediatrics)/ MOH hospital beds	20.4	Bed/ physicians in hospitals	1.7
% beds (internal medicine)/ MOH hospital beds	32.1	Bed/ nurses in hospitals	1.1
% beds (orthopedic)/ MOH hospital beds	5.5	Average cost of hospital day (US$)	77.7
Average hospitals death rate of total discharges	1.5	Average inhabitant cost from hospitals cost (US$)	25.7
Hospitalization days ratio in MOH per 1000 persons	179.8		

Table B.2 Comparison between beds by health providers in 1999 and 2002.

Provider	1999			2002			% of expanding
	WB	GS	Palestine	WB	GS	Palestine	
MOH	1,009	896	2,005	1,135	1.478	2,613	30.0
NGOs	1,094	314	1,408	1,101	543	1,644	16.8
Private	258	36	294	458	39	497	69
UNRWA	38	0	38	38	0	38	0.0
Total	**2.179**	**1.207**	**3.386**	**2.732**	**2.060**	**4.792**	**41.5**

Table B.3 MOH- Hospital indicators, Palestine in comparison with 1999.

Indicators	1999	2000	2001	2002	Difference
Number of beds	2,005	2,303	2,486	2,613	30.3
Bed occupancy	79.8	72	72	76.7	6.5
Average length of stay	2.7	2.8	2.8	2.8	0.0
Hospitalization days	479,215	496,013	608,268	622,883	25.6
Admissions	181,258	185,356	222,909	224,087	20.9
Discharges	180,688	180,357	220,594	222,966	23.6
Emergency services	515,565	491,036	677,943	749,318	52.6
Out- patient clinics visits	864,874	806,187	1,352,104	1,286,539	59.6
Surgery	52,893	55,943	71,540	76,421	36.6
Births	39,458	39,562	49,869	41,622	5.2
Deaths	2,814	2,886	3,081	3,312	14.8
Physicians	837	902	1.024	1,004	12.4
Pharmacists		46	72	74	60.9
Nursing staff	1,527	1,678	1,823	1,932	15.1
Paramedical	420	416	523	460	10.6

Appendix C

Interpretation of terms (Joint Commission on Accreditation of Healthcare Organization, 1994).

*** Aggregate:** to combine standardized data and information.

*** Anesthesia:** the administration (in any surveyed setting, by any route, for any purpose) of general, spinal, or other major regional anesthesia or sedation with or without analgesia for which there is a reasonable expectation that, in the manner used, the sedation or analgesia will result in the loss of protective reflexes for a significant percentage of a group of patients.

*** Assess:** to transform data into information by analyzing the data.

*** Assessment procedure:** the process established by an organization by which appropriate and necessary information is obtained for each individual seeking entry into a health care setting or service. The information is used to the match the individual's needs with level of care required and the appropriate setting.

*** Competence or competency:** capacity equal to requirement, as in "the competence of a medical or professional staff member".

*** Continuum of care:** matching the patient's needs with the appropriate level and type of medical, health, or social service.

*** Credentialing:** the process of granting authorization by the governing body to provide specific patient care and treatment services in hospital,

within defined limits, based on an individual's license, education, training, experience, competence, health status, and judgment.

*** Department:** an organizational unit of the hospital or of the medical staff (also called clinical department); any structural unit of the health care organization, whether it is called a department, a service, a unit, or something similar. See also services.

*** Diagnosis**: a scientifically or medically acceptable term given to a complex of symptoms (disturbances of function or sensation of which the patient is aware), signs (disturbances the physician or another individual can detect), and findings (detected by laboratory, x-ray, or other diagnostic procedures, or responses to therapy).

*** Dietitian, qualified:** an individual who is registered by the commission on dietetic registration, the American dietetic association, or who has the documented equivalent in education, training, and experience, with evidence of relevant continuing education.

*** Documentation**: the process of recording information in the medical record and other source documents.

*** Endemic:** the habitual presence of a disease within a geographic area; may also refer to usual prevalence of a given disease within such area.

*** Epidemic:** an outbreak in a community or region of a group of illnesses of similar nature, clearly in excess of normal expectancy and derived from a common or propagated source.

*** Governing body:** the individual (s), group, or agency that has ultimate authority and responsibility for establishing policy, maintaining

patient care quality, and providing for organization management and planning; other names for this group include the board, board of trustees, board of governors, and board of commissioners. Standards are applied to evaluate the performance of a hospital's governing body.

*** Governing body by laws:** rules that establish the roles and responsibilities of the governing body.

*** Health care organization:** a generic term used to describe many types of organizations that provide health care services.

*** Improve:** to take actions that result in the desired measurable change in the identified performance dimension.

*** Intensive care unit:** a unit of a hospital established for patients requiring extraordinary care on a concentrated and continuous basis. See also special care units.

*** Laboratory:** see pathology and clinical laboratory services.

*** Measurement:** the systematic process of data collection, repeated over time or at a single point in time.

*** Medical record:** the account compiled by physicians and other health care professionals of a variety of patient health information, such as the patient's assessment findings, treatment details, and progress notes.

*** Medical staff:** a hospital body that has the overall responsibility for the quality of the professional services provided by individuals with clinical privileges and also the responsibility of accounting therefore to the governing body.

*** Medical staff bylaws:** a document that describes the organization, roles, and responsibilities of the medical staff. The bylaws are developed, adopted, and periodically reviewed by the medical staff and approved by the governing body.

*** Nosocomial infection:** an infection acquired in the health care organization.

*** Nursing staff:** registered nurses, licensed practical or vocational nurses, nursing assistants, and other nursing personnel who perform nursing care in a health care organization.

Operative and other invasive procedures: procedures involving picture or incision of the skin or insertion of an instrument or foreign material into the body, including, but not limited to, percutaneous aspirations and biopsies, cardiac and vascular catheterizations, endoscopies, angioplasties, and implantation, excluding venipuncture, intravenous therapy, and injection of radiographic contrast media.

*** Organiationwide:** throughout the organization and across multiple structural and staffing components, as appropriate.

*** Outcome:** the result of the performance (or nonperformance) of a function or process(es).

*** Patient assessment:** the systematic collection and review of patient-specific data.

*** Performance:** the way in which an individual, group, or organization carries out or accomplishes its important functions and processes.

*** Performance improvement:** the continuous study and adaptation of functions and processes of a health care organization to increase the probability of achieving desired outcomes and to better meet the needs of patients and other users of services; the third segment of a performance measurement, assessment, and improvement system.

*** Pharmacist:** an individual who has a degree in pharmacy and is licensed and registered to prepare, preserve, compound, and dispense drugs and chemicals.

*** Physician:** an individual who has received a degree of doctor of medicine or doctor of osteopathy and who is fully licensed to practice medicine.

*** Plan:** to formulate or describe the approach to achieving the goals related to improving the performance of the organization.

*** Policies and procedures:** the act, method, or manner of proceeding in some process or course of action; a particular course of action or way of doing something, such as policies and procedures governing the medical staff credentialing process.

*** Prescribing or ordering:** directing the selection, preparation, and/or administration of medication(s).

*** Process:** a goal-directed interrelated series of actions, events, mechanisms, or steps.

*** Qualified individual:** an individual who is qualified to participate in one or all of the mechanisms outlined in the standards by virtue of one

or more of the following: education, experience, competence, applicable professional licensure, regulation, and /or certification, registration, and privileges.

*** Quality of care:** the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. Dimensions of quality include the following: patient perspective issues, safety of the environment of care, and accessibility, appropriateness, continuity, effectiveness, efficacy, efficiency, and timeliness of care.

*** Quality of documentation:** the degree to which information recorded in source documents is accurate and complete and is performed in a timely manner.

*** Safety of care:** The degree to which the hospital environment is free from hazard or danger.

*** Safety management :** A component of a hospital's environment of care program that combines five elements-general safety, safety education, emergency preparedness, hazardous materials and wastes, and safety devices and operational practices. Standards are applied to evaluate a hospital's performance in conducting safety management program.

*** Standard:** a statement of expectation that defines the structures and processes that must be substantially in place in an organization to enhance the quality of care.

Appendix D

Patient's Questionnaire

As Part of my thesis for the M.A. degree in Public Health Major - An-Najah National University- Nablus, this survey was designed.
The thesis of study aims at studying the level of health services at public and private hospitals in Nablus city; pointing out major problems that retard the development of health services; in an attempt to meliorate and develop health services in the hospital section.

The survey examines principal sections involved in health care services; it portrays patients in need of these services and the medical staff working on it.
All available information and personal opinions will be treated with confidentiality. Results of this survey will be used for scientific research uses only, without any exposing of the institution or the patients' names.
And we hereby confirm the absolute respect of patients' privacy, pledging to keep up all information available in this survey confidential.

Thank you for your cooperation.

The researcher

Majd Al-Adham

First: General information about the hospital.

1. Sector of services: ڤ Public Sector ڤ Private sector. ڤ Charity sector
Name of the Hospital ……
Name of the Ward (where the patient stays)……..

Second: General information
Please put the mark (*) in the suitable square.

Gender: ڤ Male ڤ Female

Qualifications: High school or less ڤ Diploma ڤ Bachelor degree ڤ Master ڤ PhD

Duration of stay: ڤ 3 days ڤ 4-5 days ڤ 6 days ڤ Week ڤ more…

Place of Residence: ڤ city ڤ village ڤ camp

1. How can your general health condition be described when you were admitted to hospital?
ˆ excellent ˆ very good ˆ good ˆ fair ˆ poor

2. You were admitted to hospital through the…
ˆ admission department /patient registration ˆ Emergency Room
ˆ Transferred from another hospital ˆ Referred by a consultant.
ˆ other (specify)

3. If admitted through emergency room, was your admission completed promptly and moothly?
ˆ excellent ˆ very good ˆ good ˆ fair ˆ poor

4. When in hospital, were tests and treatments done on schedule and promptly?
ˆ Excellent ˆ very good ˆ good ˆ fair ˆ poor

	Poor	**Fair**	**Good**	**Very good**	**Excellent**
5. How do you rate the admission process?					
6. How do you rate the courtesy and concern of admission staff?					
7. Coordination between the registration dep. and the nursing staff was					
8. Readiness of hospital staff to meet your needs was					
9. How your family members treated by the hospital's staff?					
10. The level of care from nursing staff to your special concerns was					
11. Response of nursing staff to your call was...					
12. The way nurses relieved your pain and discomfort was					
13. The way nurses informed you about your condition and treatment procedures was					
14. Did nurses give you enough information & instructions about using your medication?					
15. Nurses performance (giving medication, IV) can be described as					
16. Availability of drugs and medications was					
17. Punctuality of nurses in giving					

medications doses on time was					
18. Percent of giving wrong doses of drugs was					
19. Treatment and respect you had from nurses been					
20. You found nurses appearance, professionalism and manners					
21. Cooperation & coordination among nurses in your ward was					
22. Cooperation & coordination among the whole staff in the hospital for your service was					
23. The frequency consultant doctor visited you was					
24. Availability of doctors for random consultations was					
25. You rate cleanness of your room and bed as					
26. The treatment and respect you had from labs and x-ray technicians was					
27. Meals delivery and their suitability to your health condition rates					
28. Are you satisfied with medical supplies and equipments used in the hospital					
29. In general, how do you rate offered services in the hospital?					
30. Your own impression about the level of the nursing staff in this hospital.					
31. In general, how do you find the level of health care you received from the medical staff?					

Would you agree or disagree with the following statements:

	Strongly agree	Some what agree	Some what disagree	Strongly disagree
32. Am so satisfied about the level of health care I received at this hospital that I mentioned it whenever appropriate...				
33. the staff of the hospital whom I dealt with were courteous and professional				
34. The nursing staff was professional and well-trained that they gained my trust.				
35. post-surgery/ treatment I was satisfied with how procedures were handled				
36. Expenses of treatment are comparative to delivered services.				
37. If needed hospitalization again, I will choose this hospital for treatment.				
38. Based on your own experience, were services up to your expectations?				

بسم الله الرحمن الرحيم

تحية طيبة و بعد،،،

تشكل هذه الاستمارة جزأ من دراسة في برنامج ماجستير الصحة العامة في جامعة النجاح الوطنية-نابلس و تهدف لدراسة مستوى الخدمات الصحية المقدمة للمرضى في قطاع المستشفيات الحكومية والخاصة في مدينة نابلس. لتحديد المشاكل الرئيسية التي تعيق تطور الخدمات الصحية، في محاولة جادة لتحسين وتطوير الخدمات الصحية في قطاع المستشفيات
هذه الاستمارة تقصي آراء شريحة أساسية في هذا المجال تمثل المرضى الذين يستعملون الخدمات الصحية الحالية وكذلك العاملين بها.
إن كافة المعلومات والآراء الشخصية المعطاة من قبلكم ستبقى في حيز الثقة الكاملة. وسوف تعامل كل استمارة بسرية تامة. و نتائج الاستطلاع ستكون لأغراض البحث العلمي فقط ، دون التعرض لاسم المريض أو المؤسسة. ونؤكد على الاحترام المطلق لخصوصيات المريض. ونتعهد بالحفاظ على كافة المعلومات المعطاة في هذه الاستمارة.

وشكرا على حسن تعاونكم و مساعدتكم

الباحثة:
مجد الأدهم

استبيان المريض

اولا: معلومات عامة عن المستشفى

1- مقدم الخدمة: ڤ قطاع حكومي ڤ قطاع خاص
2. اسم المست. .....
القسم الذي تقيم به: .....

ثانيا: معلومات عامة

يرجى وضع اشارة (*) في المربع المناسب

الجنس: ڤ ذكر ڤ أنثى

المؤهلات: ڤ توجيهي فأقل ڤ دبلوم ڤ بكالوريوس ڤ ماجستير ڤ دكتوراه

مدة الإقامة: ڤ 1 -3 أيام ڤ 4-6 أيام ڤ أسبوع أكثر.....

مكان السكن: ڤ مدينه ڤ قرية ڤ مخيم

استبيان المريض

1-أي الأجوبة التالية يصف وضعك الصحي عند دخول المستشفى؟

سـيئ ق لا بـأس ق جيـد ق جيـد جـداً ق ممتـاز ق

2-كيف تم دخول المستشفى؟

1-الاستقبال ق 2-الطوارئ ق 3-انتقال من مستشفى آخر ق
4-محول من قبل أخصائي ق 5-غير ذلك ق

3-إذا تم الدخول من خلال غرفة الطوارئ كانت بطريقة؟

سـيء ق لا بـأس ق جيـد ق جيـد جـداً ق ممتـاز ق

4-خلال تواجدك في المستشفى تمت الفحوصات والعلاج بشكل؟

سيئ ق لا بأس ق جيد ق جيد جداً ق ممتاز ق

	ممتاز	جيد جداً	جيد	لا بأس	سيئ
5-سهولة عملية دخول المستشفى					
6-لطف واهتمام موظفي الاستقبال					
7-التنسيق بين قسم التسجيل و التمريض داخل المستشفى					
8- استعداد موظفي المستشفى لتوفير احتياجاتك المطلوبة					
9- طريقة التعامل مع أفراد عائلتك من قبل موظفي المستشفى					
10- قدرة الممرضات والممرضين على تقديم أساليب الراحة لك					
11- سرعة تواجد التمريض عند طلبك لهم					
12- طريقة تعامل الممرضات والممرضين مع آلامك وتعبك					
13- مستوى المعلومات والشرح المعطى من الممرضات والممرضين بشأن وضعك الصحي					
14- شرح الممرضات والممرضين لنوعية الدواء المعطى لك					
15-مستوى تنفيذ الخدمات من قبل الممرضات والممرضين (إعطاء الدواء الحقن)					
16-مستوى توفير جميع الأدوية المحددة للعلاج					
17-مستوى دقة الممرضات والممرضين باعطاء جرع الدوا في الوقت المحدد					
18-نسبة الأخطاء في إعطاء الجرع المحددة من الدواء					
19-معاملة الممرضات والممرضين لك واحترامهم لرغباتك					
20-مظهر الممرضات والممرضين وسلوكهم معك					
21- تنسيق العمل بين الممرضات والممرضين المسؤولين عن العناية بك					

	ممتاز	جيد جداً	جيد	لا بأس	سيئ
22- تنسيق العمل بين جميع الكوادر في المستشـفى لتقـديم العناية بك					
23- كثافة زيارات الطبيب المعالج					
24- سهولة رؤيتك لطبيب عند حاجتك له					
25-نظافة سريرك وغرفتك					
26-طريقة معاملة موظفي المختبر والتصوير					
27-مستوى وجبات الطعام المقدمة وتناسبها مع حالتك الصحية					
28-مستوى التجهيزات الطبية والمعدات داخل المستشفى					
29-مستوى الخدمات المقدمة داخل المستشفى بشكل عام					
30- انطباعك الخاص عن سمعة الفريق الطبي في هذا المستشفى.					
31- مستوى العناية (بشكل عام) التي حصلت عليها من الفريق الطبي.					

مدى موافقتك على التالي:

	اوافق بشدة	اوافق نوعا ما	لا رأي	ارفض	ارفض بشدة
32-إن العناية التي حصلت عليها في هذا المستشفى كانت ممتازة لجد أنني مدحتها أمام الجميع.					
33-كل موظف تعاملت معه في هذا المستشفى كان لطيفاً واختصاصياً					
34-فريق التمريض واثقون مما يقومون به وعندي ثقة كاملة بهم					
35-بعد إجراء العملية أو العلاج كنت سعيداً بطريقة التعامـل مع حالتي					
36- الخدمات التي تلقيتها داخل المستشفى ومستوى العلاج يتناسب مع تكلفة العلاج في المستشفى					
37- تختار هذا المستشفى بالذات لو احتجت لدخول المستشفى ثانية (لا سمح الله)					
38-من خلال خبرتك الخاصة مع هذا المستشفى كان مستوى الخدمة حسب توقعاتك.					

Employee Questionnaire

As part of my thesis for Masters Degree in Public Health Major at An-Najah National University- Nablus, this survey was designed.

The study aims at studying the level of health services at public and private hospitals in Nablus city; pointing out major problems that retard the development of health services; in an attempt to meliorate and develop health services in the hospital section.

The survey examines principal sections involved in health care services; it portrays patients in need of these services and the medical staff working on it.
All available information and personal opinions will be treated with confidentiality. Results of this survey will be used for scientific research uses only, without any exposing of the institution or the patients' names.
And we hereby confirm the absolute respect of patients' privacy, pledging to keep up all information available in this survey confidential.

Thank you for your cooperation.

The Researcher

Majd Al-Adham

First Section:
General information about the hospital (for administration dep. use)

1. Sector of Services: ☐ Public sector ☐ Private sector ☐ Charity sector
2 Hospital name: ……
3. Number of beds: ……...
4. Number of employees:
5. Date of the establishment: ……...

Second Section:
Employee's survey - General information
- The aimed category/ the functional name …….

- Please put the mark (*) in the suitable square.
Sex: Male ☐ Female ☐

Qualifications:
Tawjihi ☐ Diploma ☐ Bachelor degree ☐ Master ☐ Ph D ☐

Years of Experience: 1-4 years ☐ 5-9 years ☐ more than 10 years ☐

No.		Highly disagree	Disagree	Don't Know	Agree	Highly agree
1.	There is a conventional time defined for finishing each type of service.					
2.	There is a documented by law for rules of procedure clarifying detailed work mechanism					
3.	A planed mechanism is employed for assessing and following up offered health services					
4.	Permanence & Stability of the level of offered services rates as					
5.	Regularity of administrative meetings (reviewing/ evaluating work) is					
6.	The hospital maintains effective staff assessment system					
7.	Staff accountability for mistakes is					
8.	Work violations are handled according to a fair penalty system.					
9.	There is a written job description aligned with each position					
10.	The administration adopts ultimate resolution procedures at once (for controlling mistakes and their occurrence)					
11.	If opposing patient's interest, financial benefits comes at last					
12.	The higher the quality of health services the higher the costs					
13.	The hospital implements a plan for Quality Management.					
14.	The hospital maintains continuous planning for training, by preparing					

	outlined programs & courses					
15.	The training plan (if exists) ensures orienting new staff, and offering advanced training for senior ones.					
16.	The administration's policy encourages training programs for the staff					
17.	The institution's working conditions are a good environment with minimum exposure to hazards.					
18.	Wages scale, extra work bonuses, & annual raises are conferred upon a fair study and suitability to staff's qualifications & experience.					
19.	You keep good relations with colleagues in your dep.					
20.	Working environment is quite pleasant & comfortable					
21.	Hi-tech appliances and the institution's designing facilitates completion of duties					
22.	Division of load of work among the staff is just.					
23.	You feel that your direct supervisor/head is qualified technically.					
24.	Administratively, you feel that your direct supervisor/head is qualified well enough.					
25.	Most of the hospital's employees perform their duties efficiently.					
26.	If "functional contentment" is identified as (all accumulated good feelings the employee feels toward his/her job, colleagues, and the working atmosphere) do you feel that you are functionally content?					
27.	Being a staff in the hospital's team makes you feel proud					
28.	The hospital's policy					

	promotes the spirit of belonging of its employees.					
29.	The institution carries out periodical surveys about the staffs “functional contentment”					
30.	The institution's policy inspects good relations between the staff and their supervisors/heads & among the staff themselves.					
31.	The hospital highlights Strategic Planning for Enhancement					
32.	A studied mechanism is employed for following up Enhancement Programs					
33.	Enhancement programs are carried out according to the plan & assessed constantly.					
34.	A full assessment is done periodically for the whole Enhancement Plan					
35.	The hospital keeps good relations with suppliers and favors them based on liability.					
36.	The hospital deals with restricted number of suppliers, establishing long-run relations.					
37.	The hospital's first concern is the patients well being					
38.	Effective media (means) used at hospital facilitates treatment of patients.					
39.	The hospital satisfies patient's needs & desires.					
40.	Evolving problems are tackled seriously & effectively.					
41.	The hospital carries out surveys checking Patients Satisfaction.					
42.	The number of staff is proportional to the no. of admitted patients.					
43.	The hospital invests all media					

	& means saving time.					
44.	The staff uses the latest technologies & electronic communicational channels					
45.	Equipments used at hospital are modern and up-to –date.					
46.	Regular maintenance & check up (for all equipments and machinery) are followed up constantly by related dep.					
47.	Rate of error/failure in machinery is low.					
48.	Effective professional safety procedures & mechanism					

بسم الله الرحمن الرحيم

تحية طيبة و بعد،،،
تشكل هذه الاستمارة جزأ من دراسة في برنامج ماجستير الصحة العامة في جامعة النجاح الوطنية- نابلس
.و تهدف لدراسة مستوى الخدمات الصحية المقدمة للمرضى في قطاع المستشفيات الحكومية والخاصة في مدينة نابلس. لتحديد المشاكل الرئيسية التي تعيق تطور الخدمات الصحية، في محاولة جادة لتحسين وتطوير الخدمات الصحية في قطاع المستشفيات
هذه الاستمارة تتقصي آراء شريحة أساسية في هذا المجال تمثل المرضى الذين يستعملون الخدمات الصحية الحالية وكذلك العاملين بها.
ان كافة المعلومات والآراء الشخصية المعطاة من قبلكم ستبقى في حيز الثقة الكاملة. وسوف تعامل كل استمارة بسرية تامة. و نتائج الاستطلاع ستكون لأغراض البحث العلمي فقط، دون التعرض لاسم المريض أو المؤسسة. ونؤكد على الاحترام المطلق لخصوصيات المريض. ونتعهد بالحفاظ على كافة المعلومات المعطاة في هذه الاستمارة.

وشكرا على حسن تعاونكم و مساعدتكم

الباحثة:

مجد الآدهم

اولا: معلومات عامة عن المستشفى-(خاص بالادارة)

1- مقدم الخدمة: ڤ قطاع حكومي ڤ قطاع خاص
2. اسم المستشفى: .....
2- عدد الاسرة في المستشفى: .....
3- عدد العاملين بالمستشفى: .....
4- تاريخ تاسيس المستشفى: .....

استبيان الموظف
ثانيا: معلومات عامة

الفئة المستهدفة/المسمى الوظيفي: .....

يرجى وضع اشارة (*) في المربع المناسب

الجنس: ڤ ذكر ڤ انثى

المؤهلات: ڤ توجيهي ڤ دبلوم ڤ بكالوريوس ڤ ماجستير ڤ دكتوراه

سنوات الخبرة: ڤ 1-4 سنوات ڤ 5-9سنوات ڤ اكثر من 10 سنوات

استبيان الموظف

الرقم	الفقرة	موافق بشدة	موافق	لارأي	معارض	معارض بشدة
1	تضع المستشفى حد معين لمعدل الوقت اللازم لاتمام تقديم الخدمة					
2	يوجد لدى المستشفى اجراءات/ تعليمات عمل موثقة توضح آلية تقديم الخدمة					
3	يوجد دائرة/ آلية لمتابعة وتقييم تقديم الخدمة الصحية					
4	يوجد ثبات في طريقة تقديم الخدمة الصحية					
5	تقوم المستشفى بعقد اجتماعات مراجعة إدارية لتقييم العمل					
6	يوجد لدى المستشفى نظام لتقييم أداء الموظفين					
7	تضع المستشفى حد معين لمعدل عدد الأخطاء في العمل					
8	تطبق المستشفى نظام عقوبات منصف لمخالفات الموظفين					
9	تعرّف المستشفى صلاحيات ومسؤوليات العمل الخاصة بكل موظف					
10	تركز المستشفى على معالجة الأخطاء وتقليل حدوثها					
11	تهتم المستشفى بتقديم الخدمة علىالربح المادي					
12	الاهتمام بجودة الخدمات الصحية يعني زيادة التكاليف					
13	يوجد لدى المستشفى خطة للجودة					
14	يوجد تخطيط مستمر لعملية تدريب الموظفين، بإعداد البرامج التدريبية المناسبة					
15	تشمل الدورات التدريبية (إن وجدت) جميع الموظفين على مختلف مستوياتهم					
16	يوجد اقتناع وتشجيع من قبل الادارة العليا لضرورة التدريب					
17	تهتم المستشفى بالموظفين وتعمل على توفير الراحة لهم					
18	أسس تحديد الرواتب والعلاوات والمكافآت والعمل الإضافي في المستشفى عادلة ومناسبة					
19	تشعر بالراحة نتيجة تعاملك مع زملائك في قسمك					
20	جو العمل ودي ومريح					
21	بيئة العمل المادية تتيح لك أداء العمل بسهولة					
22	تشعر بالعدالة من تقسيم العمل بينك وبين زملائك					
23	مديرك مؤهل علمياً لأن يدير قسمك					
24	مديرك مؤهل إدارياً لأن يدير قسمك					
25	معظم الموظفين في المستشفى يؤدون عملهم بكفاءة عالية					
26	إذا عرفنا الرضا الوظيفي على أنه "مجموعة المشاعر الإجابة التي يحملها الموظف تجاه عمله وزملائه وبيئة العمل الداخلية" أنت تشعر بالرضا الوظيفي					
27	تشعر بنوع من الاعتزاز لانتمائك بالمستشفى					
28	تعزز المستشفى روح الانتماء لدى موظفيها					
29	تقوم المستشفى بإجراء دراسات دورية لمعرفة مدى الرضى الوظيفي للموظفين					
30	تحرص المستشفى على وجود علاقات جيدة بين الموظفين ورؤسائهم					
31	تقوم المستشفى بإعداد الخطط لعملية التحسين المستمر					

32	تتبنى المستشفى آلية لمتابعة عملية التحسين					
33	تقوم المستشفى بتقييم عملية التحسين وفقاً للخطة الموضوعة					
34	تقوم المستشفى بتقييم نتائج عملية التحسين					
35	تهتم المستشفى بالموردين وتحرص على وجود علاقة جيدة معهم					
36	تعتمد المستشفى على عدد قليل من الموردين وتحرص على اقامة علاقة طويلة المدى					
37	تهتم المستشفى بحسن معاملة المرضى					
38	توفر المستشفى وسائل فعالة تؤدي الى سهولة التعامل مع المرضى					
39	تعمل المستشفى على تحقيق رغبات المرضى					
40	تتعامل المستشفى بجدية وفعالية مع مشاكل المرضى					
41	تقوم المستشفى باعداد دراسات لمعرفة مدى رضى المرضى					
42	تحرص المستشفى على أن يتناسب عدد الموظفين مع عدد المرضى					
43	تعمل المستشفى على توفير جميع الوسائل التي من شأنها استغلال الوقت					
44	تعمل المستشفى على تطوير استخدام وسائل الاتصال الالكترونية بين الموظفين					
45	تحرص المستشفى على استخدام وسائل التكنولوجيا الحديثة					
46	تهتم المستشفى بالصيانة الدورية للأجهزة والمعدات					
47	نسبة حدوث الأعطال في الأجهزة والمعدات منخفضة					
48	يوجد لدى المستشفى نظام وآليات عمل فعالة للسلامة المهنية					

Table 4.21 Mean average type of deliver care processes cross with mean average of all hospital departments

Type of service	Average of department	Surgical	Maternity and Gyna	ICU	E R	Burns	Ortho.	Medical ward (men)	Medical word (women)	Children and neonate
1-Medical availability/ accuracy use of medication.	4.26	4.65	4.59	3.88	3.54	3.44	4.41	4.72	4.14	3.8
2- Administration and registration	3.80	4.22	4.1	4.33	3.54	4.00	3.25	3.58	3.55	3.30
3-Appearance & behavioral skills of staff	3.74	4.28	4.27	4.00	3.54	4.06	3.55	3.5	3.13	3.48
4-Cooperation and coordination from medical staff.	3.65	4.02	4.05	4.00	3.54	3.66	3.58	3.41	3.57	2.73
5- Nursing (Medical services from nurse).	3.54	4.12	4.9	4.13	3.54	3.40	3.50	3.35	2.93	3.10
6-Laboratories and radiology.	3.425	3.916	3.94	4.33	3.54	4.00	3.50	3.25	2.82	2.70
7- Contact physician	2.90	3.12	3.38	3.16	3.54	3.66	2.8	2.47	2.67	2.8
8- Room services facilities and	2.87	3.64	3.35	2.83	3.54	3.00	2.37	2.58	2.6	1.7
9-Equipments availability	2.80	3.45	3.61	2.83	3.54	2.00	1.8	2.45	2.58	1.8
10-Willings of nurses to answer	2.4	2.91	2.85	2.16	3.54	3.00	2.62	2.45	2.02	1.9

question										

جامعة النجاح الوطنية
كلية الدراسات العليا

تقييم نوعية ومستوى اداء الخدمات الصحية في المستشفيات الفلسطينية: نموذج لاداء الادارة الصحية الجيدة

اعداد
مجد عبد الرحمن فريد الادهم

اشراف
الدكتور أمجد الغانم

قدمت هذه الأطروحة استكمالا لمتطلبات درجة الماجستير في الصحة العامة بكلية الدراسات العليا في جامعة النجاح الوطنية في نابلس، فلسطين

2004

تقييم نوعية ومستوى اداء الخدمات الصحية
في المستشفيات الفلسطينية: نموذج لاداء الادارة
الصحية الجيدة

اعداد
مجد عبد الرحمن فريد الادهم
اشراف
الدكتور أمجد الغانم

الملخص

ان التطور التقني الهائل و تعقيداته في مجال الخدمات الصحية على مدى العشرين عامـا المنصرمة و مع غياب نظام عمل مؤسساتي واضح في مجال الخدمات في القطاع الصـحي الفلسطيني ادى الى نوع من الفوضى و التقصير في اداء النظـام الصـحي بشـكل عـام. ان المتغيرات المختلفه في بيئة العمل الصحي مثل الطلب، التكلفه، و نظم العمل لهي متغيرات على درجة كبيرة من التغيرالامر الذي يتطلب التدخل بهدف التطوير و التحسين المستمر للأداء.

تعتبر هذه الدراسة الأولى من نوعها لتقصي و بشمولية اهميه ادارة الخدمات الصحية و سبلها، و التي تعتبر من اهم القضايا في مجال الادارة الصحية، هادفة بـذلك دراسـة امكانيـة تطبيق نظام عمل مؤسساتي استجابة لهذه المتغيرات الديناميكية باعتباره امرا ضروريا لتحسين هيكلية العمل الصحي في فلسطين.

اجريت هذه الدراسة في الفترة الزمنية من شهر كانون الأول الى أيـار للعـام 2004 و شملت جميع المستشفيات العاملة في مدينة نابلس بهدف تقصي امكانية تطبيق نظام اداري خاص بالجودة في هذا المجال و ذلك من خلال تحديد المستوى الحالي للخدمات المقدمة في مستشفيات المدينة على اختلاف انواعها (حكومي، خاص، خيري). و كذلك التقصـي و البحـث عـن العوامل المؤثرة على مستوى الاداء للخدمات المقدمة. وقد هدفت الدراسة كذلك للبحـث فـي امكانية تطبيق المستشفيات لمعايير الجودة المختلفة.

و لتحقيق هذه الاهداف تم اعداد استبانتي بحث صممت خصيصا لهذا الغرض، وشملت عينة الدراسة كل من العاملين و المرضى في هذه المستشفيات. ومن ثم تم تحليل هذه البيانات احصائيا باستخدام النظام الاحصائي SPSS.

لقد تم صياغة عدة فرضيات وتم فحصها بالاعتماد على المبادىء الاساسية للتقيـيم فـي نظام الجودة العالمي (ادارة الجودة الشاملة TQM). بينت النتائج وجود اختلافـات ذات قـيم احصائية هامه في ما يتعلق بتقييم كل من العاملين و المرضى في هذه المستشفيات و المتعلـق بمستوى الخدمات المقدمة في مختلف الاقسام العاملة ضمن المستشفى الواحد وكذلك بين مختلف القطاعات الصحية.

بالاعتماد على مستوى الاداء والذي حدد للفرضيات باستخدام مقيـاس (Likert Scale) تبين ان غالبية الاقسام العاملة حققت مستويات اقل من 3.5 درجة مشيره بذلك الـى ضـعف ملحوظ في اداء غالبية الاقسام العاملة باستثناء تلك الاقسام التابعـة للمستشـفيات الخاصـة. و بشكل عام اظهرت النتائج اختلافات و تقصير في جودة الخدمات الصحية في كافـة قطاعـات المستشفيات. و لوحظ كذلك وجود علاقة مباشرة ما بين مستوى الرضـى لـدى المرضـى و مستوى الخدمات المقدمة بشكل عام، حيث ان الرضى مرتبط بطريقة مباشرة بنوعية الخـدمات المقدمة و بطرق اداء العاملين و التي بدورها مرتبطه بالممارسات الادارية.

كما بينت الدراسة بأن معايير ادارة الجودة الشاملة لم تكن ضمن اولويات هذه المستشفيات باستثناء مستشفى رفيديا الحكومي. ولم تعمل ايا من المستشفيات على تطبيق هـذا النظـام و مبادئه وان الاقسام العاملة في مستشفى رفيديا الحكومي و التي طبقت هذا النظام اعطت نتـائج افضل بكثير من نظيرتها المستشفى الوطني موشيرة بذلك الى ميزات ذات اولوية لصالح تطبيق نظام الجودة الشامل في هذا القطاع .

ان التحليل المقارن للنتائج ليؤكد على ضرورة القيام بأبحاث في هذا المجال بهدف تاسيس نظام صحي متكامل في هذه المستشفيات. في الختام و بناء على نتائج هذه الدراسة تم اقتـراح نموذج لادارة جودة الخدمات الصحية في قطاع المستشفيات بهدف تطوير النظام القائم.