1.0 INTRODUCTION

“Everyone has a doctor in him or her; we just have to help it in its work. The natural healing force within each one of us is the greatest force in getting well. Our food should be our medicine. Our medicine should be our food.” Hippocrates

Eating well is important for everyone's health and well being. Food is not only necessary to meet an individual’s nutritional requirements, it also needs to be appropriate for different age groups, religious, cultural and social backgrounds, as well as for different medical conditions. Food provided needs to be familiar, tasty and available. Above all, it needs to be eaten and enjoyed. Maximising opportunities for individuals to eat and drink and maximising quality and choice of food and fluids offered are considered to be fundamental to improving intakes.

1.1 NUTRITIONAL CARE-AN IMPORTANT PART OF PATIENT CARE

Providing appropriate nutrition in the hospital setting is a particularly challenging task due to the diverse dietary needs of those who are unwell. The hospital nutrition service is a combination of two aspects, that is, nutrition and dietetics. Nutrition is the combination of processes by which the living organism receives and utilizes the material necessary for the maintenance of its function and for the growth and renewal of its components. Dietetics has been defined as the application of the science and art of human nutrition in helping people select and obtain food for the primary purpose of nourishing their bodies in health or disease throughout the life cycle. In hospitals, due importance needs to be given to nutrition services for better patient care. It is quite natural that nutritional care is based on the nature and character of diseases and therefore this needs to follow an individualistic approach (Jha, 1999).

Nutritional care is therefore an important as well as a critical part of patient care in any hospital. When someone is unwell they need to eat the right food, in the right amounts, at the right time in order to get better. It is an amalgamation of physical, emotional and
psychological environment to foster recovery of patients and in turn, assure short hospital stay. Food is an important part of nutritional support. Patient care is best provided with the co-coordinated efforts of the health care team, involving dietitians, physicians, nurses and employees of the food service unit as well, with the patient as a partner and the central receiver of all the professional care. Maintenance of comfort and quality of life are the well established goals of nutritional care for the patients (Saroj, 1989).

Nutritional care has been described as an organized group of activities allowing identification of nutritional needs of patients and provision of care to meet these needs. The nutritional care process consists of assessing nutritional status, analyzing data to identify nutritional needs or problems, planning and prioritizing objectives of nutritional care to meet these needs, implementing strategies necessary to meet the objectives and evaluating the nutritional outcomes (Lacey and Pritchet, 2003).

1.2 NUTRITION SERVICES IN HOSPITALS

Hospitals these days receive patients of varying nature, with different cultural background, with varied food habits and with different diseases. The clinicians and dietitians have to meet the requirements of patients as per their nature of diseases, their nutritional status and tackle any problems related to the underlying pathological conditions (Korschevar et al, 1985). Providing good nutrition to patients in hospitals has become a primary focus in many nutrition and health delivery services and the impact of adequate food on patient outcome is now well documented. Many patients who are ill in hospitals or other care settings, and have poor appetites or an impaired ability to eat, are at risk of developing under nutrition. It is therefore not surprising that hospital nutrition is considered the most supportive part in treating disease (Brogden, 2004).

According to the John et al, (2005), the common goal in feeding patients in hospitals is to provide quality food that meets nutritional standards at the most economical cost. Food service to patients requires imagination and ingenuity in planning for a variety of foods to meet the needs of the patients. The dietary department is organized, equipped and staffed
to provide food service to in-patients, employees and visitors. Service of food includes a number of functions such as planning menus, purchase of raw materials and distribution of the finished product.

The end result depends on the physical arrangement and equipment for food service, number and type of personnel, type of food service set up and the budget. The physical facilities of the dietary department have an important influence on the standard of food service, labour costs and morale of workers. Suitable equipment for efficient food production and service is an important factor in the successful operation of the dietary department. Adequate maintenance of records is also an important element for the smooth functioning of the department. Apart from food service, the diet clinic of an outpatient service helps in wider use of dietary counselling and helps to clarify diet instructions.

1.2.1 Organization of the Nutrition Services in Hospitals

For optimal nutrition care of patients in hospitals, the nutrition services of the hospitals need to be well organized. A well defined organizational set up identifies tasks, titles and the planned relationships between tasks; but does not show informal communication channels, groups and actual activities performed in the organization. Within the structure, additional tools required by the food service manager for efficient management are job description, job specification, work and time schedule, job analysis, production and service analysis statements and budgets (Sethi, 2011).

One of the important tools of management is the organization chart. Some form of organization within the hospital is necessary to provide effective and integrated care to patients, to ensure that nutrition services develop efficiently and coherently, and to ensure that needs of the patients are met. This is particularly relevant for this study as many patients from some government and private hospitals, who needed special diets, had to be sent to other hospitals for providing this facility. An organization chart shows the structure of an organization in terms of how the various units or departments are linked
together. It represents the entire team involved in the running of the establishment at both operational and management levels (Sethi, 2011).

The responsibilities and accountability for hospital nutrition among health care professionals and hospital management must thus be clearly assigned. A food service policy needs to be adopted and implemented at hospital or regional level. Hospital managers should give proper attention to food service policy and nutritional support. All hospital staff, clinical and non-clinical should acknowledge food service as an important part of the treatment and care of patients.

The Joint Commission on Accreditation of Health Care Organizations (JCAHO, 2002) has three major organizational and managing steps for redesigning hospital systems that provide nutrition and food services to patients. The recommended organization chart is shown in Figure 1.1
Figure: 1.1 Organization structure of the food service department as per Joint Commission on Accreditation, USA, 2002
The division of work and its efficient coordination are important in every health care institution, and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) recognizes this importance in its standards. The JCAHO standards require that all departments or services be organized, directed and staffed, and integrated with other units and departments or services of the organization. For food service, the standards stress organization in a manner designed to ensure provision of optimal nutrition care and high-quality food services. Figure 1.2 shows one line level in a small food service department (JCAHO, 2002). The organizational chart shows how jobs are grouped into common tasks that can be coordinated by a single dietary manager.

![Organizational Chart]

Figure 1.2 One line level in a small food service department

A flat organizational structure in a small food service department has fewer layers of supervisors and subordinates. The three major organizational and managing steps for nutrition services as recommended by JCAHO (2002) are

**I) Planning:** The JCAHO (2002) recommends that plans should be designed at the supervisory and first-line management levels

**II) Directing:** The JCAHO (2002) has standards for food and nutrition services that divide labor, so that work is organized around processes and accomplished by teams of individuals.

**III) Co-ordination:** The co-ordination of activities that clinical dietitians are most frequently involved in during the course of their work is nutritional screening together with care planning and documentation.
1.2.2 The Components of Nutrition Care

Dietetics contributes to the promotion of health and the prevention and treatment of illness by optimising the nutrition of communities and individuals. It utilises scientific principles and methods in the study of nutrition and applies these to influencing the wider environment affecting food intakes and eating behaviours (Dietitians Association of Australia, 2012). Dietitians are found directly responsible for provision of nutrition care (Malhotra, 1996). The nutrition care procedure includes various components (Saroj, 1989). The major steps involved are:

1) **Assessing nutritional status**

Nutritional assessment systems have focused on methods to characterize each stage in the development of a nutritional deficiency or excess state. Nutritional assessment methods are based on a series of dietary, laboratory, anthropometric and clinical observations (Gibson, 2005).

2) **Analyzing data to identify nutritional needs/problems**

O’ Reilly et al. (1995) have stated nutritional screening as the first step in the nutritional assessment process to avoid unnecessary nutrition depletion. All patients should be screened to identify potential nutritional risk. Providing individualized nutritional care when appropriate, is preferable. Each proposed action or intervention should be planned and documented in the nutritional care plan, in the same way as any other part of the medical and nursing treatment is documented.

3) **Planning and prioritizing objectives of nutrition care to meet their patient needs**

According to Howard et al (2006), nutritional care is a concept which includes several different aspects. It is dependent on drawing up the need based objectives of the nutritional care, careful planning and management supported by an effective infrastructure. Strong organizational arrangements need to be in place. Monitoring of nutritional provision and a regular audit is extremely helpful.
4) **Implementing strategies necessary to meet the objectives**

Implementing nutritional care in every department and ward, based on the objectives drawn up is the next step. Continuous training programmes and regular audit programmes are used to identify any short falls.

5) **Evaluating nutritional care outcomes**

American Dietetic Association (1995) has made important recommendations about nutritional screening, food service and nutritional support provision, staff roles in nutritional care, communication and health economics. When choosing a product, its efficacy, efficiency and effectiveness should be kept in mind. According to O'Grady (1995), communication between patients and clinical nutritionists needs to be clear and consistent. The Council of Europe (2003a) has several recommendations in the education and training of nutrition services staff in educating non-clinical staff, catering managers, dietetics/nutrition assistants and ward staff involved in food service.

1.2.3 **Provision of Nutrition Care through Nutrition Services**

Patient focussed care (PFC) is a central element in work redesign and re-structuring of health care delivery systems. It affects all levels of dietetics practice. Patient focussed care poses potential benefits and challenges to nutrition professionals, including opportunities to expand the scope of practice and to share traditional nutrition duties with others. Implementation of patient focussed care in a hospital influences the organizational structure and delivery of nutrition care and services (Miller and Kinsel, 1998).

1.2.3.1 **Inpatient and Out Patient Services**

Patient service is one outcome measure of clinical service provision. Hospitalised patients are dependent on hospital food for their nutritional requirements. Knowledge of patient satisfaction with services is important and therefore nutrition professionals need tools to confidently assess the service provision and educational materials provided as part of that service.
Hospital dietary service caters to the need of outpatients regarding diet and food counselling. It provides diet to inpatients as per their requirements considering the nature and type of diseases that are more common among the patients (Tabish, 1993).

1.2.3.2 Hospital Catering Services

Hospital catering services are an essential component of nutritional care and should be flexible and responsive to patient needs. Close liaison between clinical and catering staff is vital if patients are to receive what they need, when they need it and in a form in which they can eat (Kyle et al, 2005).

- Patients admitted to hospital must have any physical difficulties with eating/ drinking identified and recorded within one day.
- There is a protocol for the provision of all therapeutic diets.
- Food and fluid must be provided at the correct texture.
- Patients are given a choice for all food and fluid, including therapeutic and texture modified diets.
- Hospital catering services must be capable of providing a range of modified texture foods and fluids as may be recommended by speech and language therapists (SALT) also, to meet their patient population needs (British Dietetic Association and Hospital Caterers Association, 2006).

1.3 ROLE OF A DIETITIAN

Dietitians supervise the preparation and service of food, develop modified diets, participate in research, and educate individuals and groups on good nutritional habits (WHO, 2010). The goals of dietitians are to provide medical nutritional intervention, and to obtain, safely prepare, serve and advise on flavoursome, attractive and nutritious food for patients, groups and communities. Dietary modification to address medical issues involving dietary intake is a major part of dietetics. For example, working in consultation with physicians and other health care providers, a dietitian may provide specific artificial nutritional needs to patients unable to consume food normally.
Professional dietitians may also provide specialist services for disorders such as diabetes, obesity, oncology, osteoporosis, paediatrics, renal disease, and micronutrient research (Thematic Network for Diets, 2011; School of Human Nutrition and Dietetics, 2011; National Health Service, 2011; Misner, 2006).

According to National Health Service (2011), different professional terms are used for dietitians in different countries and employment settings, for example, clinical dietitian, community dietitian, dietetic educator, foodservice dietitian, registered dietitian, public health dietitian, therapeutic dietitian, or research dietitian. In many countries, only people who have specified educational credentials and other professional requirements can call themselves ‘dietitians.’

In many countries, the majority of dietitians are clinical or therapeutic dietitians, such as the case in the United States, the United Kingdom, and much of Africa. In other countries they are mostly foodservice dietitians, such as in Japan and many European countries (Misner, 2006; Hwalla and Koleilat, 2004). In USA, there are administrative dietitians and clinical dietitians.

Dietitians have a remarkable role in the health care environment. With the rapidly changing healthcare environment, it is imperative that dietitians demonstrate the importance of their role as health care providers by initiating and participating in outcomes research. Patient care should be based on empirical studies and clinical dietitians should participate in such investigations for evidence based practice (Linda et al, 1998).

1.3.1 Diet/Nutrition Counselling
Dietary counselling by registered dietitians and nutritionists should recognize the benefit of individualizing nutritional care for encouraging modification of eating habits. It may also assist in prevention or treatment of nutrition-related contributions such as cardiovascular disease, cancer, obesity, diabetes, and hyperlipidemia. Dietary counselling can be tailored to meet the treatment needs of patients at the diagnosis of
specific illnesses, can help reduce complications and/or side effects, and can improve
general well-being. Prevention at all levels: primary (preventing disease), secondary
(early diagnosis), and tertiary (preventing or slowing deterioration) requires active patient
participation and guidance and support from the dietitian or physician. Education,
motivation, and counselling are needed for effective patient participation. In addition
to patient education, dietary counselling often includes meal planning. A guide to the
amount an average person needs each day to remain healthy has been determined for
each vitamin and mineral as well as macronutrients. In India, this guide is called
the *Recommended Dietary Allowance (RDA)* (ICMR, 2010). Recent data indicate that the
patient-centred counselling models enhances long-term dietary adherence. Patient
centred counselling involved a four step process including (a) increasing the patient’s
awareness of his/her diet related risks (b) providing the patient with nutritional
knowledge (c) increasing the patient’s confidence in his/her ability to make dietary
changes and (d) enhancing skills needed for long term adherence to dietary change plans
(Rosal et al, 2001).

### 1.4 DIETITIAN TO PATIENT RATIO

Dietitian to patient ratio in hospitals should be optimal in accordance with the bed
strength. With awareness that most patients in hospitals rely completely on food provided
by the catering service in hospitals for their nutritional support, it is important to
remember that, many of the problems that arise in the provision of apparently
nutritionally balanced food, are potentially preventable with good planning and an
appropriate dietician to patient ratio. This would facilitate better patient care. It would
also help to maintain closer supervision in all the functional areas of food production and
services. Rounds by dietitians and doctors with separate instruction books, provision of
bigger counselling rooms would further help to strengthen the infrastructure and improve
the reputation and credibility of dietitians.

A study carried out on the status of nutrition support services in selected hospitals in
India (Kapil et al 2003) revealed that only 64% of the hospitals had dietetic department.
About 18% did not have any dietitian. The dietitian to patient ratio was very low with 0.28% dietitians available for 100 hospitals indoor beds.

A recent study carried out by Public Health Foundation of India (2012) on the shortage of dietitians and submitted to the Union health ministry says the nation is short by nearly 2.36 lakh dietitians. It reported the shortage of dietitians state wise where Uttar Pradesh recorded the highest shortage of trained dietitians at about 40,000, followed by Maharashtra (21,925), Bihar (20,385), West Bengal(17,847), Andhra Pradesh (16,351) and Madhya Pradesh (14,128). Similarly, Tamil Nadu was short of 14,097 dieticians, Rajasthan (13,288), Karnataka (11,823), Orissa (8,170), Kerala (6,534), Haryana (4,936) and Delhi (3,317). The study did not report any data from Jammu and Kashmir. Figure 1.3 shows state wise data.

![Statewise data on lack of dietitians in India (PHFI, 2012)](image-url)
The requirement of dietitians suggested for dietetic departments by DGHS (Directorate of Health Services, New Delhi, 1989) is given in Table 1.1.

### Table 1.1: Suggested Dietetic Staff Requirements for Dietetic Departments (1989)

<table>
<thead>
<tr>
<th>Staff</th>
<th>No. of Beds*</th>
<th>No. of Dietitians</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100*</td>
<td>200*</td>
</tr>
<tr>
<td>Chief Dietitian</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Senior Dietitian</td>
<td>-</td>
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</tr>
<tr>
<td>Dietitian</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Assistant Dietitian</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total dietitians</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: DGHS (1989), New Delhi

### 1.5 HOSPITAL MALNUTRITION

Concern is growing about the occurrence of malnutrition in hospitals throughout the developing and developed world. Several factors can contribute to this malnutrition, among which one of the major factors may be the substantial nutrient losses that occurs in foods served to patients. Poor nutrition services can also contribute to hospital malnutrition. A more vigorous approach to nutrition is therefore needed, both in terms of food preparation methods and in assessing the actual nutritional status of patients. A significant proportion of patients who are in hospital can be classified as 'healthy' individuals and may only be admitted for the average length of stay of approximately three days. This will include, for example, patients who may be hospitalised due to a minor illness and are 'nutritionally well', maternity patients not experiencing complications and previously fit healthy people whose illness does not/will not affect their food and fluid intake such as those having minor elective surgery. There are also other patient groups with chronic conditions, for example, young adults with mental health problems who are in long-stay care. Some of these individuals may be nutritionally at risk, such as those with eating disorders, whilst other individuals' dietary needs are very much more in line with those of the general healthy population. It would be appropriate for these patients to be provided with a diet that is based on general healthy eating principles (Kowanko et al, 1999).

Hosseini (2006) in his study on nutritional status of patients during hospitalization revealed that under nutrition was present in 5.7% of the patients when admitted and this
increased during hospitalization. One potential cause of worsening nutritional status was inadequate medical staff and poor awareness about the importance of nutrition in hospitalized patients. Many patients have changes in their nutritional and dietary requirements during their stay in a hospital. Regular nutritional screening of patients, especially those who are most vulnerable, should ensure that their changing needs can be met. In addition, adverse effects of infection on nutritional status must be guarded against, via provision of clean and safe food.

1.6 FOOD SAFETY

Food safety is increasingly focusing on effective means of reducing food borne hazards. This holistic approach to the control of food-related risks so important in hospitals, involves consideration of every step in the food chain, from raw material to food consumption. Hazards can enter the food chain on the farm and can continue to be introduced or exacerbated at any point in the chain (FAO/WHO, 2004).

1.6.1 Food Sanitation and Hygiene

Food hygiene poses peculiar problems, particularly in patients, who could be more vulnerable than healthy subjects to microbiological and nutritional risks. Food hygiene in hospitals requires special attention to rigorous preventive measure to minimize the hazard of food borne disease. ‘Sanitation is the way of life. It is the quality of living that is expressed in the clean home, the clean farm, the clean business, the clean neighborhood and the clean community. Being a way of life it must come from within the people; it is nourished by knowledge and grows as an obligation and an ideal in human relations’ (Jain, 2010). All patients should receive hospital food, which has been stored, prepared and transported in such a way as to ensure the hygiene, safety, palatability, gastronomy, and nutrient content of the food at a high level. All hot meals should be served at temperatures around 60-70°C. The Nutritional Steering Committee, the Nutritional Support Team or an adequately qualified person should be responsible for the hygienic aspects of food service. The kitchen and ward staff should receive proper education in food hygiene while the hygienic control of hospital food production should be used to
engage hospital management in the wider concept of hospital nutrition (National Sanitation Foundation of the USA, 2011).

1.7 QUALITY ASSURANCE

Quality focuses on the outcome of the reasons and activities to offer the services against the increasing level of expectations of users. Like other organizations, hospitals must focus on the concept of total quality management (TQM) for achieving world class excellence to sub serve social interests. Different grades and categories of personnel are recruited in the hospitals and quality educational training and facilities are essential for all hospital personnel, including nutrition services personnel.

Chong et al. (2000) investigated the perceived total quality management (TQM) performance of their department by clinical nutrition managers and dietitians, and food service managers and supervisors in hospital food and nutrition service departments. Three TQM constructs- organization, information, and quality management were evaluated. As the dynamic roles of dietitians change, many dietitians occupy management positions in organizations such as restaurants, hospitals, health food stores, food processing /distribution companies, and schools. Thus, TQM should be applied to clinical nutrition and food service settings also. Dietitians will need to assess TQM in their workplace facilities, especially because of the direct links of TQM to productivity and client satisfaction.

1.8 HOSPITAL ACCREDITATION

Accreditation is a form of self regulation. It typically aims to improve services. Organizations wishing to be accredited pay a fee for that service. Accreditation is a process whereby an organization is assessed on a set of pre-determined standards. It intends to promote quality improvement through diverse approaches; they are either mandated by the government, voluntary or initiated by independent agencies. Although many health-care organizations in developing countries are undergoing or considering
accreditation, there is little research on its impact and consequently no conclusive evidence that it improves quality of care (Jardali et al, 2008).

In India, the initial premises of introducing accreditation were based on the overall objective to ensure the quality of care. The Bureau of Indian Standards (BIS) had laid down standards for hospitals having 30, 100 and 250 beds. The National Institute of Health and Family Welfare (NIHFW) had such rules laid for more than 50-bed hospitals, but only for equipment. Most of the standards laid down by both BIS and NIHFW were criticized for having an urban bias. There were attempts in some states to institutionalize uniform standards for hospitals. In Maharashtra, the government hospitals follow the Hospital Administration Manual. The Andhra Pradesh Vaidya Vidhana Parisad has laid down standards for secondary-level hospitals in the government sector, which come under it. Apart from this, some efforts have been made by consumer bodies, groups of health professionals, hospital organizations and non-governmental organizations to evolve standards for accreditation. However, what was lacking was a unity of the various attempts to monitor the functioning of hospitals in India and the stringency of compliance to established standards.

Indraprastha Apollo Hospitals (New Delhi) recently achieved the Joint Commission International (JCI) USA Accreditation established in the year 1994—the first Indian hospital to be awarded this gold-standard certification. The mission of Joint Commission International is to continuously improve the safety and quality of care in the international community through the provision of education and consultation services and international accreditation.

Joint Commission International (JCI) is a division of the Joint Commission Resources (JCR), the not-for-profit affiliate of the Joint Commission. For more than 50 years, The Joint Commission and its predecessor organization have been dedicated to improving the quality and safety of health care service and have surveyed nearly 20,000 health care programs through a voluntary accreditation process.
Max Healthcare Hospitals became the first in North India to receive prestigious Indian National Accreditation Board for Hospitals (NABH) Accreditation. Two tertiary care hospitals of Max Healthcare, the leading hospital chain with seven hospitals in the National Capital Region (NCR), have also received the prestigious NABH accreditation.

The recently established National Accreditation Board for Hospitals and Healthcare Organizations (NABH) has released the first set of standards. These cover all functional areas of the hospitals and validate the quality of care through compliance assessments against 500 criteria, critical to the efficient functioning of a healthcare setting. There is a strong emphasis on patient rights and benefits, safety, control and prevention of infections in hospitals, practicing good patient care protocols and better clinical outcome. The standards are adaptable to a wide spectrum of health care services in tune with local culture and systems and yet at the same time, benchmarked with the best international standards. In a NABH accredited hospital, there is strong focus on the following:

- Patient rights and benefits
- Patient safety
- Control and prevention of infections in hospitals
- Practicing good patient care protocols including nutritional assessment of all patients and special care for vulnerable group and critically ill patients
- Better and controlled clinical outcome (Max Health Care, 2007).

National Accreditation Board for Hospitals and Health Care Providers (NABH) is a constituent Board of Quality Council of India (QCI), set up with co-operation of the Ministry of Health and Family Welfare, Government of India and the Indian Health Industry. In India, concerns about how to improve health care quality have been frequently raised by the general public and a wide variety of stakeholders, including government, professional associations, private providers and agencies financing health care. This Board will cater to the much desired needs of the consumers and will set standards for progress of the health industry. This Board, while being supported by the stakeholders including industry, consumers and Government, has full functional autonomy in its operations (NABH, 2007).
Standards and Objective Elements for evaluation have been set by NABH as shown in Figure 1.4.

- (AAC) Access, Assessment and Continuity of Care
- (PRE) Patients Right and Education
- (COP) Care of Patient
- (MOM) Management of Medication
- (HIC) Hospital Infection Control
- (CQI) Continuous Quality Improvement
- (ROM) Responsibility of Management
- (FMS) Facility Management and Safety
- (HRM) Human Resource Management
- (IMS) Information Management System

The continued development of ISO management system standards into areas such as environment, health and safety, food safety, and information security has reinforced the need for an integrated approach. In order to meet the requirements of ISO 9001 Quality Management System and NABH Standards, a hospital must make the patients requirements an integral part of the Standard Operating Procedures for the hospital.
1.8.1 Patients’ feedback

Patients’ feedback serves as a good indicator of patient satisfaction and quality of service. At MAX hospitals, feedback is sought from all patients through a patient satisfaction questionnaire, which is then analyzed. Analyzing the feedback about the patients experience through their 'Total Customer Experience Questionnaire' is their 'moment of truth', which helps them improve the way they care. The current patient satisfaction levels with their medical care and services ranges between 80% - 95% (MAX Health Care, 2012).

1.9 RATIONALE FOR THE PRESENT STUDY

While the importance of nutrition services in hospitals is realized and documented theoretically, nutrition services in most hospitals in our country do not receive the due they deserve. Very little Indian data is available on quality of nutrition services in hospitals. Such data if available could provide useful pointers to prepare need based recommendations for improving nutrition care of patients. A pilot survey in two hospitals of Srinagar, the capital of Jammu and Kashmir supported the premise of unsatisfactory and inadequate nutrition services as part of inpatient care. The present study therefore was mainly aimed at the evaluation of nutrition services provided by selected hospitals in Srinagar, the city which caters to patients from various districts of Kashmir.

Nutrition services have improved with increased recognition of nutrition and dietetics over the past few years; this has possibly occurred in the large metro cities and large multispecialty hospitals. It is likely that nutrition services still have a back seat position in many areas of the country and especially those in difficult and/or unstable situations.

In the present study it was thus planned to evaluate the nutrition services in registered hospitals of Srinagar and draw up recommendations for optimizing nutrition care in patients. These recommendations could be used by hospital administrators, policy makers and dietitians for improving nutrition services and hence improve overall health care of hospitalised patients.
1.10 OBJECTIVES OF THE STUDY

With this background, the objectives of the study were

1) To assess the status of the nutrition services offered by hospitals in Srinagar.

2) To evaluate comprehensively the nutrition services with respect to
   – Presence of dietetics department and dietitians
   – Suitable infrastructure, functioning of the food service unit and microbiological assessment of food, water and surfaces.
   – Patients perception of nutrition services
   – Nutritional status of patients with long-term stay in the hospital

3) To identify the lacunae in the nutrition services and develop recommendations for optimizing nutritional care of patients and obtain feedback from DHS officials, hospital administrators and other stakeholders.