

A MENU PLANNING GUIDE FOR LARGE ARMY HOSPITALS

by 4589

ONETA DOWNEY TROY

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Approved by:

Francis B. Stewart
Major Professor

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INTRODUCTION

Planning meals in a hospital is an important function of food service management. When hospital services are being observed, and often judged, nothing rates more praise or blame from patients and staff than the meals that are served to them. The public also looks critically at the food served in hospitals. Even though visitors may not be permitted to use the food services, they need only to be present when meals are served to form an opinion of the quality of the food. Thus, the food service can be an important force for good or bad public relations.

To the patient, staff or visitor, a menu is only a list of foods available for a particular meal. To the dietitian responsible for planning that menu, it is a "blueprint" for the activities of the food service. The menu determines the labor, equipment, and space needed to prepare and serve the meals and affects economy of operation.

Skillful menu planning is considered the basis of a successfully operated food service. Thoughtful planning and extensive knowledge are required because of the numerous interrelated factors that must be considered. It is in the planning stages that managerial problems can be anticipated and avoided.

The type of menu selected for any individual institution should be tailored to the food preferences of its patients and to the personnel, equipment, and food budget available. Menus for hospitals, in particular, must be viewed in terms of their limitations. It has often been stated that no other food service

has a greater number of "captive" customers. In support of this statement, Kapfer (1968) emphasized that in commercial or private institutions the customer generally is able to choose the type of food service, menu items, and accompanying cost he desires. However, in a hospital, the customer must accept what is offered. He can bring pressure if he is dissatisfied, but he can not go elsewhere. These limitations provide a challenge to the dietitian.

Menu planning, in general, is concerned with three primary objectives: meeting nutritional standards, economical diets, and acceptability of menus. This involves consideration of complex criteria that often are obscured when menus are planned manually. The introduction of electronic data processing as a management tool in food service operations has led to research in the application of scientific techniques for menu development. Given accurate data, the computer is capable of assembling these various factors in a matter of seconds and providing an optimal solution to the menu planning problem. Various authors indicate that the potential of menu planning by computer has not been reached because of a lack of adequate dietary data that must be supplied by dietitians. This would suggest that, in addition to further research, increased emphasis must be placed on development of menu planning skills. A limited amount of experience is offered to students at the college level; however, greater emphasis is placed on practical application in the dietetic internship program.

The major purpose of this study was to develop a menu planning guide for dietetic interns at army hospitals to assist them in selection of menu items for a varied number of diets. A secondary purpose was to review the literature on menu planning principles, procedures, and current trends in computer assisted menu planning.

REVIEW OF LITERATURE

Menu Planning Factors

Planning menus is a complex and time-consuming task because there are numerous factors that must be considered. Nutrient content, cost, acceptability, variety, and equipment and personnel available frequently are identified as limiting factors. Item selection is influenced by factors peculiar to the situation and by policies of the institution (Fowler et al., 1961).

Another important consideration is the capability of the menu planner. Kapfer (1968) emphasized that the academic knowledge of the basic requirements for menu planning should be tempered with experience. The ability of the menu planner to visualize menu items as they appear on the tray and the recognition of flavor combinations as applied to standard products requires a "taste sense" and actual experience in food production.

Menu planning frequently is a cooperative effort rather than an individual responsibility. Stokes (1960) indicated that the utilization of several staff members offers an excellent opportunity for staff development and contributes toward critical evaluation of the menu.

Nutrients. Providing menus that are nutritionally adequate is a major concern of the dietitian in the hospital setting. Foods essential for good nutrition contribute to the health and well-being of the persons served. Specific nutrient requirements to be included in the menu depend on a variety of factors. Among these are the age, sex, and activity of the group, and often the disease under treatment. Certain patients may require modifications in their diet to meet nutritional deficiencies (Cooper et al., 1958). Advances in nutritional science have resulted in increased emphasis in the use of special diets in recent years.

Nutritional standards are developed by the Food and Nutrition Board of the National Research Council for each age and sex group. Daily dietary allowances are recommended for nine nutrients and total calories, and are revised periodically to provide the most current information. These dietary standards are useful in menu planning and evaluation.

Menu patterns for institutional feeding generally are structured according to a daily food guide prepared by the Institute of Home Economics (West et al., 1966). This guide, known as the "Basic Four," is divided into: (1) milk group, (2) meat group, (3) vegetable and fruit group, and (4) bread and cereal group. According to Cooper et al. (1958), this food plan replaced an earlier scheme commonly referred to as the "Basic Seven Food Group." However, the Basic Seven still is valid and is favored by many nutritionists.

Cost. One objective of menu planning is "economical diets." Food services in hospitals are concerned primarily with meeting the needs of the group served, rather than making a profit. Nonprofit organizations usually establish a predetermined budget, and the amount of money authorized for food is dependent upon management's philosophy of cost control and productivity rather than patient satisfaction. According to Kapfer (1968), sound management of manpower, money, resources, and material can not be emphasized too strongly.

Food and labor costs are major expense items of the food service budget (Stokes, 1960). Controlling these costs is a primary consideration of the dietitian. Therefore, the menu planner should be cognizant of the amount of money allocated for these items and the actual cost of the menu served (Fowler et al., 1961).

The American Hospital Association (1961) listed careful menu planning as the first real step in controlling food costs. Advance planning minimizes haphazard or emergency buying of food which is costly and facilitates the proper balance of expensive and inexpensive menu items. The expedient choice of seasonal foods on the menu is another means of controlling costs. West et al. (1966) stated that "fresh foods are less expensive when in season locally." The use of "out-of-season" foods can quickly unbalance the food budget.

The variety of menu items offered is a controversial subject relating to menu cost. Andrews (1968) emphasized that "variety costs money" and that these costs should be assessed in "terms of

the length of patient stay for each hospital." However, most authors agree that variety is essential to successful menu planning and vitally important to patient acceptance. Severe cost restrictions imposed by management can seriously limit menu appeal.

The rising cost of labor has placed additional demands on the menu planner. Labor costs are determined by the menu items, the number of trained employees and their wages and fringe benefits, production and service criteria, and the physical equipment available (West et al., 1966). The efficient use of manpower and resources requires that the menu be planned for maximum utilization each day. Numerous studies have been made to measure labor productivity in hospital dietary departments (Brown, 1969; Vetter, 1964; Ostenso and Donaldson, 1966; Zolber and Donaldson, 1970). Results of the studies suggest that although improved utilization of labor is imperative, productivity has not increased extensively. Skillful menu planning, however, can minimize both food and labor cost to some degree.

Acceptability. The acceptability of food items served to the institutionalized patient is of utmost concern to the dietitian. However, acceptance criteria are difficult to define because of complex factors that influence patient reaction.

According to Schuh et al. (1967), food acceptance is influenced by "the physiologic, psychologic, biochemical, social, educational, and sensory reactions of individuals who move in a framework of race, religion, tradition, economic status, and

environmental conditions." In spite of these influences, researchers agree that distinctive food preference patterns may be recognized for any particular group by studying their food habits (Kotschevar, 1966; Fowler et al., 1961; West et al., 1966).

In addition to the factors listed, patients are influenced frequently by previous experience with the food items served by the institution (Eckstein, 1969). For example, if "lumpy, tacky tapioca pudding has been served," the majority of patients may be reluctant to select tapioca pudding the next time it is offered.

Stokes (1967) noted that variety and eye appeal are essential in any food service, even though the menu is limited and the patronage is transient. Variety is achieved through contrast in color, shape, texture, flavor, and preparation. Stokes continued by describing color as perhaps the most effective means of achieving eye appeal. This theory was supported, also, by Kotschevar and McWilliams (1969), who emphasized the importance of visualizing the impact of vegetable color combinations on the remainder of the meal. Duplication of colors served at the same meal should be avoided. For example, broccoli and green beans are so similar in color that they may be viewed as drab or monotonous. West et al. (1966) described red-orange and purple-red combinations as undesirable. Menus become interesting and creative when both complementary and contrasting colors are included (Gregg, 1967).

A variety of appropriate shapes of food appearing on the plate is important to eye appeal, and hence, acceptability of the meal as a whole. According to Stokes (1967), cutting foods into

several geometrical designs is the best way to provide contrast, next to color. In the same vein, Fowler et al. (1961) cautioned against the use of too many mixed foods of similar shape and the indiscriminate use of dippers which cause the food to assume the shape of tennis balls.

Gregg (1967) emphasized that "good-looking" food must have "balance," also. In addition to the color, size, and shape of the menu items, texture is extremely important. West et al. (1966) mentioned that there should be balance between soft and crisp foods to minimize chewing requirements. For example, a soft entree should be served with a crisp salad or vegetable, and a creamed vegetable would be more desirable if served with a firm meat.

Kotschevar and McWilliams (1969) observed that flavor, as well as color, must be pictured in menu planning. Combinations of foods should be selected not only to enhance each other but also to bring out desirable flavor characteristics of the food. Equally important considerations are the absence of off-flavors and prolonged after-taste (Little, 1958).

West et al. (1966) stressed the importance of avoiding duplication of preparation methods at the same meal. A successful menu planner develops and utilizes a recipe file that lists several preparation methods for each food item to give variety to the menu.

A wide variety of menu items provides a more interesting mealtime and also contributes to a better range of nutrients. However, most people prefer food to which they are accustomed.

In the typical general hospital, the introduction of unfamiliar foods may cause patient dissatisfaction, as pointed out by Schuh et al. (1967).

Regional food habits must also be recognized, particularly if the patient is very ill. According to Cooper et al. (1958), persons from the South prefer hot breads at most of their meals, and vegetables cooked for long periods of time often are seasoned with fat pork. The Mexican influence of the Southwest is characterized by the use of beans and highly seasoned foods. Oriental culture has influenced eating habits in the Far West, revealing preferences for vegetables that are cooked for a short period. On the east coast and in New England, traditional dishes of the Pilgrim settlers can be seen, such as Indian pudding and johnnycake made with cornmeal. Although advertisement and travel have reduced some of the strong cultural preferences, local traditions still prevail and familiar foods should be included on the menu.

Production Capabilities. The menu specifies preparation methods and the number of food items to be produced. In this respect, the menu may be considered a production order (Kotschevar, 1966). Conversely, as stated by Fowler et al. (1961), the number of experienced personnel and the equipment available determine the variety of food items that may be offered at each meal. The menu should be planned for optimal utilization of employees' skills, time available, and equipment capacities.

Eckstein (1969) noted that the workers probably viewed the menu in terms of workload and that improper distribution frequently results in frustration. Therefore time-consuming tasks should be balanced with those that require a minimum of time. These factors not only contribute to employee morale but also aid in quality and quantity control (West et al., 1966). The use of standardized recipes, advanced planning, and constant evaluation are imperative for maintaining high quality food preparation.

Another production consideration listed by the American Hospital Association (1961), is the use of convenience products. The expedient selection of such items as preportioned meats, peeled vegetables, and ready-prepared mixes provides for more efficient use of personnel and equipment. These items also extend the variety of foods to be included on the menu.

Hospitals and Nursing Home Food Management (1969) predicted a larger choice of convenience foods for different diets in the 1970's. Pre-prepared food items will be used as a supplement rather than as an overall food service to retain the "home-style" service desired by patients.

With the rising costs and shortage of labor, many hospitals are seeking new methods of labor conservation. According to Moosberg (1967), the installation of an ingredient room is one method of increasing production efficiency. Setting up an ingredient room offers four advantages of production control: (1) a saving of 8 to 15 per cent in food cost; (2) a saving of up to 30 per cent in labor costs; (3) complete control of food waste and less overproduction; and (4) a need for fewer trained cooks.

Motion economy engineers have recommended the use of the ingredient room for a number of years, but some food service personnel are reluctant to change traditional work patterns.

Menu Preparation

Deliberations necessary to plan, prepare, and serve attractive, flavorful, and nourishing meals are dependent upon the philosophy of management (West et al., 1966). The type of menu to be used, the number of meals to be served daily, and the menu format are decisions that must be made prior to menu writing. Of paramount importance in the hospital setting is the patients' acceptance of the food served. It is the food that is eaten that builds and maintains health. Therefore, as noted by Fowler et al. (1961), menu planning should be creative, imaginative, and regarded as an opportunity to present food that is "beautiful to look at, nutritionally sound, and delightful to taste."

Types of Menus. Most commonly used in hospitals are the non selective, selective, or cycle menus which may be either non selective or selective (American Hospital Association, 1966). West et al. (1966) described the non selective menu as the "set menu" which lists only one item for each course. This type of menu often is served in small hospitals or nursing homes, depending on such factors as age and type of patient served, personnel and equipment available, and the food and labor budget. Occasionally patients are offered a choice of beverage with the non selective menu, but more frequently they must accept the food

served. This denial of patient participation in menu selection causes much dissatisfaction.

The selective menu is used extensively because it offers a choice within each course. The greatest advantage of this type of menu is that it allows for individual food preferences, thus increasing patient acceptance. In addition, Turner (1965) noted the importance of selective menus as a teaching tool for patients on modified diets. This theory was supported by Meyers (1969), who reported that making a "choice (or decision)" was good therapy for psychiatric patients. Selective menus are planned so that one of the alternative items is suitable for various types of therapeutic diets, such as diabetic and sodium restricted regimens.

The decision of what to serve so that each meal has variety and appeal, and yet includes food items that are not excessively repetitious, is a never-ending problem. According to Fowler et al. (1961), one solution to the problem is "cycle menus." Cycle menus may be defined as menus planned for a specified period, usually three to six weeks, and "rotated according to a definite pattern" (Hubbard et al., 1961). The length of the menu cycle varies with the institution and is set by administrative policy.

There are many advantages in developing cycle menus, either selective or non selective. Wrisley and Eshbach (1965) summarized the advantages as follows:

The cyclical menu provides the variety that's needed in meal patterns, while at the same time it retains the advantages that can be gained from

standardized recipes. It simplifies the operation, makes possible long-range planning and quantity purchases. It makes substitution easy and results in better satisfied customers, patients, students, workers, or whoever the clientele of the food service establishment happens to be.

Hubbard et al. (1961) pointed out the need to be aware of pitfalls in the use of cycle menus. Among these were monotony, inflexibility, resistance to change, and a general laxness because of the repetitious nature of foods and combinations and the routine aspects of supervision. Although the menu cycle may be regarded as a master plan, the menus should be reviewed and adjusted to changing conditions. If these disadvantages can be resolved, the cycle menu can become an effective management tool.

Another important consideration in cycle menu planning is adaptation to special needs, such as holidays, seasons of the year, and modified diets. West et al. (1966) suggested that by planning four sets of cycle menus for three weeks or more, seasonal variations can be included. This would allow flexibility in planning for holidays also. The American Hospital Association (1966) stressed the importance of planning regular menus that are easily adaptable to various diet modifications. If modified diets are planned as variations of the regular diet, the variety of food purchases is reduced and food preparation is simplified.

Menu Pattern. The regular hospital menu provides the framework for the normal diet (Turner, 1965). It is intended to be "a flexible guide from which basic foods may be selected in proper amounts and with a wide variety of choice." The basic

pattern is outlined in terms of the basic food groups recommended to meet dietary allowances for the normal individual. Balintfy (1964) classified the items on the menu as food categories, "such as appetizers, entrees, and desserts."

The number of food categories included in the menu pattern depends on the institution and the type of clientele. One pattern listed by the American Hospital Association (1964) is:

Morning:	Fruit or Juice
	Cereal
	Toast and butter or margarine
	Egg (at least three times weekly)
	Coffee
	Milk
Noon:	Meat, fish, or chicken (3 oz. cooked lean meat or its equivalent)
	Potatoes or alternate
	Vegetable
	Bread and butter or margarine
	Dessert
	Tea
	Milk
Night:	Casserole or other entree <u>or</u> soup and sandwich (including 2 oz. lean meat or its equivalent)
	Salad
	Bread and butter or margarine
	Dessert
	Milk

The menu may be expanded as necessary and desired. Turner (1965) suggested a similar meal pattern that would provide 70 grams of protein and 1415 to 2415 calories, depending on such factors as portion sizes and the amount of fats and sweets included on the menu.

Daily menu patterns vary, not only in the number of items offered, but in the number and frequency of items served at each meal. This is evidenced by trends in "four-a-day" and "five-

a-day" meal plans which have been introduced in hospitals and nursing homes over the past several years. Throughout the literature, controversial opinions are reported regarding divergence from the traditional three-meal plan. As with most new innovations, there are advantages and disadvantages which must be weighed. Boudreaux (1967) a pioneer of the five-meal plan, indicated that after four and one-half years, both patients and staff still liked the idea. In general the five-meal plan consists of a continental breakfast, brunch, dinner, and an afternoon and bedtime snack. Advantages cited were increased patient satisfaction due to wider menu variety and the opportunity to select menu items on the day of service, increased quality of food because of additional preparation time available between the two main meals (brunch and dinner), and more than 20 per cent reduction in operating costs.

Conversely, some authors reported failure in the five-meal plan because of lack of administrative and staff support and cooperation (Hurt, 1967; Thomas, 1967). Other pitfalls cited were delivery problems created by horizontal building plans, personnel scheduling, and special dietary regimens that required continuation of the traditional three-meal plan. The "five-a-day" meal plan is an extremely volatile subject, according to Spritzler (1969), who further stated:

Proponents of the five-a-day plan cite the advantages of a meal plan that more closely resembles the regular meal pattern outside of the hospital, a reduction in over-all food costs and a greater flexibility for scheduling work shifts. Critics of the plan are equally adamant in citing increased costs and increased

labor and preparation. Some dietitians feel that the plan would not work for diabetic patients.

The most critical issue, regardless of serving frequency, is that of providing nutritionally adequate meals. Norton (1967) pointed out that physiological and nutritional benefits to the patients are not always achieved in five-meal plans because some feedings are limited to one nutrient rather than balanced with a portion of the day's protein, carbohydrate, and fat. Too often hospitals have been concerned primarily with economic and personal advantages instead of patients' needs.

Menu Writing. Each institution should design a menu form that suits its needs for recording menus. The form should be designed so that there is space for listing all menu items (including those for modified diets) in the meal pattern for seven days (American Hospital Association, 1961). In addition, Fowler et al. (1961) stated that sauces, gravies, and accompaniments should be listed on the menu form. Such a form provides a master plan that facilitates step-by-step planning and simplifies evaluation of the menu (West et al., 1966).

When writing menus the planner must be aware of the elementary rules of planning; the need for variety in flavors, colors, and textures; and in varying those elements from meal to meal and day to day. Consideration must be given to the combination of food items that can be prepared and served within the limitations of time, money, equipment, and personnel available (West et al., 1966). Standardized recipe files, cost information, previous menus, and an index of food items aid in creative and

successful planning. Ideas may be gained, also, from studying menus from other institutions (Kotschevar, 1966). Sufficient time should be allowed for planning.

Fowler et al. (1961) specified planning the meat or main entree first for the complete menu cycle. This aids in achieving variety and controlling food costs since these items are the most expensive (West et al., 1966). Luncheon or supper entrees should be alternated between expensive and less expensive meats and other main dishes to balance the day's menu costs, according to the American Hospital Association (1961).

After the main entrees, soups, vegetables (including potatoes), and salads are selected next, in that order. The choice of soups should be varied between broth, cream soups, and chowder (West et al., 1966). Another approach (American Hospital Association, 1966) is to select the soup or appetizer last to meet nutrient requirements and to add variety to the meal. Vegetables and potatoes should be planned to complement the main dishes. In addition to the variety that may be obtained through different preparation methods, vegetables may be cut in different shapes and sizes and starches other than potatoes may be included. Fowler et al. (1961) emphasized the importance of selecting salads and accompaniments that will add color, texture, flavor, and interest to the menu. For example, wide variety can be achieved by alternating salads made from seasonal fruits and vegetables, gelatin, and protein (Treat and Richards, 1966; West et al., 1966).

Desserts add the final touch to the menu. The choice of dessert should complement the meal as a whole, particularly where no choice is offered. Fowler et al. (1961) suggested that a light dessert should be served in combination with a more substantial main entree, and that a rich dessert would make a light meal more enjoyable. When a selective menu is planned, each dessert group should be represented by a choice of one or more of the following: "fruits, hot or cold puddings, ice creams, sherbets, gelatins, cakes, pies, and cheeses" (West et al., 1966).

Because bread, beverages, and breakfast items are standard, these are added when the menu is completed. However, the addition of new items, such as hot breads and a choice of entrees, lend interest and variety (Fowler et al., 1961).

Menu Evaluation. After the menu is written, it should be evaluated by one or more staff members (Kotschevar, 1966). Each day's menu should be considered as a whole unit and checked, both vertically and horizontally for adequacy, duplication, and repetition (West et al., 1966). According to the American Hospital Association (1966), menu evaluation is best accomplished by answering the following questions:

1. Are the menus nutritionally adequate?
2. Do the day's menus have contrasts in flavor, color, temperature, texture, form, and method of preparation?
3. Is there repetition of any particular food, such as tomatoes in the soup and in the sauce for the spaghetti?
4. Are there adequate facilities, dishes, and employees to serve these menus?

5. Does a particular menu require "all oven" or "all top-of-the-range" preparation? If so, what items can be prepared ahead of the serving time?
6. Has one person or one work area been overloaded with preparation? How can this preparation be distributed more evenly?
7. Is there too much preparation of food? What prepared foods, ready-mixes, or other time-saving products could be used?

Three additional questions were listed by West et al. (1966).

These were:

1. Are the foods listed in season, available and within price range?
2. Are the meals made attractive with suitable garnishes and accompaniments?
3. Do the combinations make a pleasing whole, and will they be acceptable to the clientele?

Trends in Computer Assisted Menu Planning

Because of the complexity of menu planning criteria which demands a problem solving technique of great magnitude, many pitfalls have been recognized in manual methods. This concept is related to the limited amount of information that the brain can handle at one time. Experimental psychologists indicate that human beings can process only about seven independent factors effectively, and that when there are many alternatives to be considered, stumbling blocks may appear, causing inaccurate conclusions or decisions (Hyman and Anderson, 1967). One possible solution to the complex problem of institutional menu planning is the use of the computer which scientifically evaluates all variables to arrive at a satisfactory solution in a matter of

seconds (Balintfy and Blackburn, 1964; Balintfy and Nebel, 1966; Gue, 1969). As a result of the initial research conducted at Tulane University, automated menu planning has received considerable interest and similar programs have been implemented in several hospitals.

Two approaches to menu planning by computer have been reported: (a) a mathematical method described as "linear programming" which emphasizes "maximum nutrition at least cost" (Balintfy and Blackburn, 1964); and (b) the "random approach," a non mathematical method which approximates routine decision methods used by the dietitian and selects menu items based on predetermined acceptability ratings that control repetition intervals for food items and food categories (Eckstein, 1967; 1969). According to the authors, each method is capable of producing satisfactory results; however, they agree that additional research and program extension is necessary.

Andrews and Tuthill (1968) stated that menu planning by computer has not reached its optimum potential because of the absence of adequate dietary data that must be supplied by the dietitian. The supporting data needed are more accurate nutrient information; scales and standards for defining consumer preference, menu appeal (color, texture, shape, and flavor combinations), and production costs.

The advantages to be gained by automated menu planning are reduction in time and money, based on the speed and accuracy with which the computer provides nutritionally adequate menus, and improved management control, due to immediate detailed cost

information and more efficient utilization of manpower (Bowman and Brennan, 1969). The major problem, as related by Casbergue (1966), is that man basically distrusts mechanistic answers until the method is well proven. In spite of the indifference and fear that some food service managers express, many recognize that the computer is here to stay, and that it can be utilized to meet goals of profit, growth, and development more effectively. Prideaux and Shugart (1966) emphasized that the computer will free the dietitian of many routine, time-consuming tasks, and that hopefully, with this assistance, she will resume her genuine concern for the customer's welfare and eating pleasure.

PROCEDURE

Review of literature and personal communication with the chief dietitian at an army hospital revealed a need for increased emphasis at the internship level on the practical application of menu planning principles. This led to the development of a menu planning guide that may be used to select menu items for regular diets and various dietary modifications.

A basic format for the menu planning guide was designed to contain: food category, food code lines designating dietary modifications, name of menu item, recipe number, major ingredients in the recipe, and a legend of the symbols used.

Combined information from the Master Recipe Index for large army hospitals (Form 1, Appendix A) and the Menu Item Worksheet (recipe) (Form 2, Appendix A), was used to develop the menu planning guide. The Master Recipe Index lists by food category

the names of available recipes. The Menu Item Worksheet lists the ingredients, amounts, method of preparation, and other pertinent information, including the various code lines on which the recipe may be used, ingredients to be omitted for dietary modifications, and suggested alternate menu items. The meat category was chosen for this study because it is the first item to be selected, and all other items appearing on the menu are selected to complement the main dish. The basic format is listed in Fig. 1.

DISCUSSION

Menu planning in large hospitals often becomes extremely complex because of the numerous dietary modifications that must be considered. In addition, as patient census and staff increases, problems inherent in production and service of the menu tend to increase proportionately. An example of this is the many special food items requested by patients because of food preferences which, in turn, increases preparation and service time. Therefore, dietary modifications are planned as variations of the regular diet whenever feasible to reduce costs and simplify food preparation and service. These factors often are a source of frustration for the dietetic intern who, for the first time, is involved in the practical application of menu planning skills of such magnitude.

Army Menu Planning System

The basic form used for menu planning in army hospitals is called the Hospital Master Menu (Form 3, Appendix A). It is designed to list the basic food items for both regular and modified diets for each day of the week. A five- or six-week menu cycle is developed, according to administrative policy, to allow flexibility for incorporation of seasonal foods and holiday planning.

The weekly menu is then recorded on a daily form, the Food Code Worksheet (Form 4, Appendix A) which lists additional variations of both regular and modified diets, as adapted for age or dietary regimens and standard food items which are not included on the Hospital Master Menu (1M1 (cut) and accompaniment, 1M2 meat (ground) and accompaniment, etc.).

In addition to the standard abbreviations used for various therapeutic regimens, such as Cal/R (calorie restricted) and Na/R (sodium restricted), a "Food Code System" is used as a planning guide in developing the hospital master menu, food code worksheet, and for patient instruction. The code indicates the preparation method for each category of food used to fulfill therapeutic requirements with consideration to the disease (Department of the Army Technical Manual TM 8-500, Hospital Diets, 1965).

The general classification used is:

<u>Preparation Method</u>	<u>Food Category</u>
1 Regular (nonrestricted)	A Soup
2 Calorie restricted	B Bread-toast
3 Sodium restricted	C Cereal
4 Sodium-calorie restricted	D Dessert
5 Bland	E Egg or substitute
6 Fat restricted bland	F Fruit
7 Sodium restricted bland	G Salad Dressing
8 Sodium fat restricted bland	J Juice
9 Strained or thinned	K Jam or jelly
	M Meat and accompaniment
	N Milk or substitute
	P Potato or substitute
	S Salad
	V Vegetable
	Misc. Butter or substitute

The code lines listed on the hospital master menu and food code worksheet are a combination of the preparation method and the food category (1M - regular meat and accompaniment; 3M - sodium restricted meat and accompaniment; 1P - regular potato or substitute; 3P - sodium restricted potato or substitute; IV - regular vegetable, etc.). Additional therapeutic requirements are defined as needed for each of the nine basic code lines by adding a number after the general classification (1M1 - regular meat, cut into bite sizes; 1M2 - regular meat, ground, etc.).

Basic references, policies, and procedures have been developed by the Army to assist staff dietitians and dietetic interns to plan nutritious, appetizing menus within specified monetary limitations. Among these are the Master Recipe Index and the Menu Item Worksheet (recipe) file which contains over 5,000 recipes. The menu planner must refer to the Master Recipe Index to determine the menu items available, then examine the Menu Item Worksheet to determine whether a menu item is appropriate for the various code lines. This procedure often is time-consuming and frustrating and suggested the need for a guide that

would assist inexperienced staff and dietetic interns in making suitable menu selections for the hospital master menu and the food code worksheet.

Use of Menu Planning Guide

A menu planning guide was developed that would combine pertinent information from the Master Recipe Index and the Menu Item Worksheet. The information included was food category, food code lines, name of menu item, major ingredients, and code line availability or alternate menu item when specified on the Menu Item Worksheet. The guide may be used in several ways: (1) to supplement a teaching unit for basic instruction in menu planning and the ingredient modifications for various dietary regimens; (2) as a source of available menu items for regular and modified diets in the development of the Hospital Master Menu and the Food Code Worksheet; and (3) to evaluate the menu items selected in terms of applicable code lines and palatability factors, such as the dominant ingredients, color, and shape of the entree.

Menu planning and writing should be accomplished in considerably less time because the regular menu items and variations may be selected from the menu planning guide without reference to the Master Recipe Index and examination of the Menu Item Worksheet. Although all items for the regular diet are selected before variations for the modified diets are added, the menu planner should be able to plan more efficiently because the guide designates whether an item can be used for all dietary regimens or if an alternate item must be selected. After all regular diet

items have been selected, menu items for the modified diets are added to complete the weekly Hospital Master Menu. The guide may be further used to write the daily Food Code Worksheet which includes additional variations for both regular and modified diets.

In addition, the menu planning guide should provide a valuable tool for menu evaluation because many factors that are obscured in the planning process may be discovered quickly from the condensed information listed. However, expansion to other food categories and refinement is necessary before it can be used effectively.

MENU PLANNING GUIDE

MENU PLANNING GUIDE

Legend:
 * Available to diet listed
 — Not available to diet listed

FOOD CATEGORY: MEAT ENTREES			FOOD CODE LINES																	
Menu Item	No.	Major Ingredients	1M	1M1	1M2	2M	2M1	3M	4M	4M1	5M	5M1	5M2	6M	7M	8M	8M1	8M2	9M	9M1
Roast Beef	M-1	Beef roast, salt	*	*	*	*	*	*	omit salt	omit salt	*	*	*	*	omit salt	omit salt	omit salt	omit salt	--	thin blend strain
Beef Pot Roast	M-2	Beef, boneless, salt pepper, beef stock, onions, celery, carrots	*	*	*	*	*	*	omit salt	omit salt	omit pepper onions	omit pepper onions	omit pepper onions	omit pepper onions	omit salt	omit salt	omit salt	omit salt	--	thin blend strain
Hot Roast Beef Sandwich	M-3	Beef roast, salt, bread	* only																	
For all other code lines use Roast Beef (M-1).																				
Sauerbraten	M-7	Beef, boneless, vinegar, cnd tomatoes, brown sugar, salt, dry mustard, cloves, allspice, cinnamon, nutmeg, onion, celery, garlic, flour, butter	*	*	*	*	*	*	--	--	--	--	--	--	--	--	--	--	--	blend thin strain blend strain
Loin Steak	M-9	Loin steaks (no salt added)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	--	thin blend strain
Country Style Steak	M-11	Beef steak, flour, salt, pepper, fat	*	*	*	*	*	omit salt pepper	--	--	omit pepper	omit pepper	omit pepper	omit pepper	omit salt pepper	omit salt pepper	--	--	--	thin blend strain
For all other code lines use Grilled Minute Steaks.																				
Spanish Steak	M-12	Beef steak, cubed, salt, parsley, onions, bay leaf, tomatoes, tomato paste, grn pepper, worcestershire sauce, flour	*	*	*	*	*	--	--	--	omit grn pepper onions worcestershire sauce, pepper	omit grn pepper onions worcestershire sauce, pepper	--	--	--	--	--	--	--	--

For all other code lines use Grilled Minute Steaks.

MENU PLANNING GUIDE (continued)

FOOD CATEGORY: MEAT ENTREES			FOOD CODE LINES																	
Menu Item	No.	Major Ingredients	1M	1M1	1M2	2M	2M1	3M	4M	4M1	5M	5M1	5M2	6M	7M	8M	8M1	8M2	9M	9M1
Spanish Steak	M-12-3M	Beef steak, cubed, flour, parsley, onions, bay leaves, Na/R tomatoes, grn peppers	—	—	—	—	—	*	—	—	—	—	—	—	omit onions grn peppers	—	—	—	—	—
Swiss Steak	M-13	Steaks, tenderized, oil, flour, salt, pepper, onions, basil	*	*	*	—	—	omit salt	—	—	omit pepper onions	omit pepper onions	omit pepper onions	—	omit salt pepper onions	—	—	—	—	thin blend thin
For all other code lines use Grilled Minute Steaks.																				
Steak Smothered with Onions	M-14	Steak, tenderized, flour, salt, pepper, salad oil, onions	*	*	*	—	—	omit salt	—	—	—	—	—	—	—	—	—	—	—	thin blend strain
Teriyaki Steak	M-15	Steaks, tenderized, pineapple juice, soy sauce, ginger grd, garlic, cornstarch, marinade	*	*	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
For all other code lines use Grilled Minute Steaks.																				
Beef Jardineer	M-22	Beef, cut, cubes, salt, pepper, onions, celery, carrots, tomato paste, grn beans, grn. pepper	*	*	*	—	—	—	—	—	omit onions grn pepper	—	—	—	—	—	—	—	—	—
For code lines omitted above, use Braised Beef Cubes (M-29), EXCEPT - 3M and 7M																				
Beef Jardineer - Na/R	M-22-3M	Beef cubes, onions, Na/R tomato juice, celery, grn. beans 2, grn peppers	—	—	—	—	—	omit onions grn peppers	—	—	—	—	—	—	omit onions grn peppers	—	—	—	—	—

MENU PLANNING GUIDE (continued)

FOOD CATEGORY: MEAT ENTREES

FOOD CODE LINES

Menu Item	No.	Major Ingredients	1M	1M1	1M2	2M	2M1	3M	4M	4M1	5M	5M1	5M2	6M	7M	8M	8M1	8M2	9M	9M1
Beef Pot Pie	M-24	Beef bones, salt, beef base, beef cubes, flour, pepper, bay leaves, onions, carrots, celery, potatoes, tomatoes, mushrooms (optional)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	thin blend strain
All other code lines use Braised Beef Cubes (M-29).																				
Beef Stew	M-25	Beef cubes, fat, flour, salt, pepper, stock, bay leaves, tomatoes, onions carrots, celery, potatoes	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	thin blend strain
All other code lines use Braised Beef Cubes (M-29).																				
Beef Stew Na/R	M-25-3M	Beef cubes, fat, flour, Na/R beef stock, bay leaves, D-tomatoes, onions, carrots, celery, potatoes	—	—	—	—	—	*	—	—	—	—	—	—	omit onions	—	—	—	—	—
Braised Beef Cubes	M-29	Beef, boneless, salt, tomatoes, grd. carrots	*	*	*	*	*	*	omit salt salt (D-tomatoes)	omit salt salt (D-tomatoes)	*	*	*	*	omit salt salt (D-tomatoes)	—	—	—	—	—
Hungarian Goulash	M-32	Beef, cubed, oil, onions, paprika, beef base, curaway seed, garlic, marjoram, tomato paste, grn. pepper, vinegar, salt, butter or margarine, flour	*	*	*	*	*	*	—	—	—	—	—	—	—	—	—	—	thin blend strain	
For all other code lines use Braised Beef Cubes (M-29).																				
Beef Stroganoff	M-37	Beef cubes, fat, salt, beef stock, basil leaves, mushrooms, flour, butter, paprika, sour cream	*	*	*	*	*	*	—	—	*	*	*	*	—	—	—	—	—	—

MENU PLANNING GUIDE (continued)

FOOD CATEGORY: MEAT ENTREES

FOOD CODE LINES

Menu Item	No.	Major Ingredients	1M	1M1	1M2	2M	2M1	3M	4M	4M1	5M	5M1	5M2	6M	7M	8M	8M1	8M2	9M	9M1
Beef Lasagne	M-44	Beef, grd, onions, chpd, tomatoes, tomato paste, parsley, chpd, garlic granules, oregano, black pepper, salt, noodles, salad oil, cheese-swiss, ribbon, parmesan, and cottage	*	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chili Con Carne	M-46	Beef, grd, pinto beans, salt, onions, chpd, shortening, garlic granules, tomatoes, chili powder, paprika, cayenne pepper, comino seed	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	thin blend strain
Creamed Ground Beef	M-50	Beef, grd, salt, milk whole, flour, bread	This meat entree used for Breakfast code lines: 1E, 5E, and for 3E, 7E-omit salt.																	
Grilled Cheeseburgers	M-51	Hamburger patties, cheese, ribbon	*	*	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grilled Hamburgers	M-52	Hamburger patties	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	—	—
Meat Loaf	M-55	Beef, grd, pork, grd, eggs, bread crumbs, onions, chpd, grn peppers, salt, celery, black pepper, and tomatoes	*	*	*	*	*	*	omit omit salt salt	omit omit salt salt	omit onions grn pepper	omit onions grn pepper	omit onions grn pepper	omit onions grn pepper	omit onions salt	omit onions salt	omit salt	omit salt	—	—
Salisbury Steak	M-57	Beef, grd, milk, evap, bread, onions, chpd, salt, black pepper, worcestershire sauce, eggs, grn pepper	*	*	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

For all other code lines use Grilled Hamburgers.

MENU PLANNING GUIDE (continued)

FOOD CATEGORY: MEAT ENTREES

FOOD CODE LINES

Menu Item	No.	Major Ingredients	1M	1M1	1M2	2M	2M1	3M	4M	4M1	5M	5M1	5M2	6M	7M	8M	8M1	8M2	9M	9M1
Creamed Dried Beef	M-75	Beef, dried, sliced, flour, milk, butter or shortening	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bacon	M-77	Bacon, sliced																		
This Breakfast meat entree used on code line 1H.																				
Roast Pork Loin	M-78	Pork loin roast, salt	*	*	*	*	*	*	omit salt	omit salt	*	*	*	*	omit salt	omit salt	omit salt	omit salt	--	thin blend strain
Baked Pork Chops	M-79	Pork chops, loin, salt, paprika	*	*	*	*	*	*	omit salt	omit salt	*	*	*	*	omit salt	omit salt	omit salt	omit salt	--	thin blend strain
Breaded Pork Chops	M-82	Pork chops, loin, milk whole, salt, bread crumbs, shortening	*	*	*	--	--	--	--	--	*	*	*	--	--	--	--	--	--	thin blend strain
For all other code lines use Baked Pork Chops (M-79).																				
Grilled Pork Chops	M-83	Pork chops, loin, salt, paprika	*	*	*	*	*	*	omit salt	omit salt	*	*	*	*	omit salt	omit salt	omit salt	omit salt	--	thin blend strain
Deviled Pork Chops	M-84	Pork chops, loin, dry mustard, Worcestershire sauce, lemon juice, onions, salt, black pepper	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	thin blend strain
For all other code lines use Baked Pork Chops (M-79).																				
Country Style Pork Chops	M-88	Pork chops, loin, salt, pepper, flour	*	*	*	--	--	--	omit salt	--	omit pepper	omit pepper	omit pepper	omit pepper	--	omit salt	--	--	--	omit salt pepper

MENU PLANNING GUIDE (continued)

FOOD CATEGORY: MEAT ENTREES

FOOD CODE LINES

Menu Item	No.	Major Ingredients	1M	1M1	1M2	2M	2M1	3M	4M	4M1	5M	5M1	5M2	6M	7M	8M	8M1	8M2	9M	9M1
Grilled Ham and Cheese Sandwich	M-117	Ham, cheese, bread, butter	*	*	—	—	—	—	—	—	*	*	—	—	—	—	—	—	—	—
Grilled Frankfurter	M-121	Frankfurters	*	*	*	*	*	—	—	—	—	—	—	—	—	—	—	—	—	—
Steamed Frankfurter	M-122	Frankfurters	*	*	*	*	*	—	—	—	—	—	—	—	—	—	—	—	—	—
Barbecued	M-123	Frankfurters, onion, garlic granules, bay leaves, catsup, worcestershire sauce, tomato paste, vinegar, gran sugar, brown sugar, lemon juice, rind, black pepper, salt, cayenne pepper, dry mustard	*	*	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	thin blend strain
Roast Lamb	M-126	Lamb, salt	*	*	*	*	*	omit salt	omit salt	omit salt	*	*	*	*	omit salt	omit salt	omit salt	omit salt	—	thin blend strain
Lamb Steaks	M-139	Lamb steaks	—	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	—
Select meat. May be used for a second meat on the selective menu.																				
Roast Veal	M-141	Veal roast, salt	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	—
Breaded Veal Cutlet	M-143	Veal cutlets, salt black pepper, whole milk, eggs, flour, bread crumbs	*	*	*	—	—	omit salt pepper (for 3M, 7M use Na/R bread crumbs)	—	—	omit pepper pepper pepper	omit pepper pepper pepper	omit pepper pepper pepper	—	omit salt pepper	—	—	—	—	thin blend strain

For all other code lines use Grilled Veal Steak (M-153).

MENU PLANNING GUIDE (continued)

FOOD CATEGORY: MEAT ENTREES

FOOD CODE LINES

Menu Item	No.	Major Ingredients	1M	1M1	1M2	2M	2M1	3M	4M	4M1	5M	5M1	5M2	6M	7M	8M	8M1	8M2	9M	9M1
Veal Parmesan	M-149	Veal cutlets, onions, chpd, oil, tomato paste, and tomatoes, gran. sugar, garlic granules, oregano, basil, salt, parmesan cheese	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	thin blend strain
Grilled Veal Steak	M-153	Veal steaks	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	thin blend strain
Southern Fried Chicken	M-160	Chicken, flour, salt, poultry seasoning, paprika, shortening	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	—
For all other code lines use Roast Chicken (M-164).																				
Maryland Fried Chicken	M-163	Chicken, svg, flour salt, poultry seasoning, whole milk, eggs, bread crumbs	*	*	*	*	*	*	omit salt	—	(omit poultry seasoning)	—	—	—	—	—	—	—	—	—
For all other code lines use Roast Chicken (M-164).																				
Roast Chicken	M-164	Chicken, svg, salt, butter or marg.	*	*	*	(omit butter)	omit salt	omit salt	omit salt	omit salt	*	*	*	omit salt	omit salt	omit salt	omit salt	omit salt	omit salt	thin blend strain
Roast Turkey	M-165	Turkey, boned, rolled, tied, salt, butter	*	*	*	(omit butter)	omit salt	omit salt	omit salt	omit salt	*	*	*	omit butter	omit salt	omit salt	omit salt	omit salt	omit salt	thin blend strain
Barbecued Chicken	M-168	Chicken, svg, salt, black pepper, butter barbecue sauce	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	thin blend strain

For all other code lines use Roast Chicken (M-164).

MENU PLANNING GUIDE (continued)

FOOD CATEGORY: MEAT ENTREES			FOOD CODE LINES																	
Menu Item	No.	Major Ingredients	1M	1M1	1M2	2M	2M1	3M	4M	4M1	5M	5M1	5M2	6M	7M	8M	8M1	8M2	9M	9M1
Baked Haddock Fillets	M-187	Haddock, fillet, butter, lemon juice, paprika, salt, parsley, lemon slices	*	*	--	--	(omit butter)	--	--	--	*	*	--	--	--	--	--	--	--	--
Sauteed Fish	M-189	Fish, fillets, cornmeal, flour, salt, salad oil, lemon slice	*	--	--	--	--	--	--	--	*	--	--	--	--	--	--	--	--	--
Tuna Salad	M-191	Tuna fish, eggs, hard cooked, celery, sweet pickles, mayonnaise, salt, dry mustard	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tuna Salad Plate	M-190	Tuna fish, eggs, hard cooked, celery, pickle relish, mayonnaise, salt, dry mustard, lettuce, sweet pickles, eggs, hard cooked halves, radishes, grn olives	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tuna or Salmon Croquette	M-199	Salmon--tuna, salt, parsley, bread crumbs, butter, onions, flour, eggs, milk	*	*	*	--	--	--	--	--	omit onions	omit onions	omit onions	--	--	--	--	--	--	--
Tuna or Salmon Patty	M-200	Salmon--tuna, salt, parsley, bread crumbs, butter, onions, flour, eggs, milk	*	*	*	--	--	--	--	--	omit onions	omit onions	omit onions	--	--	--	--	--	--	--
Tuna or Salmon Pattie (Modified)	M-200-2M	D-tuna--D-salmon, salt, bread crumbs, celery, onions, paprika, pimiento, carrots, grd, eggs, milk, lemon juice, lemon slice	--	--	--	*	*	omit salt	omit salt	omit salt	omit onions	omit onions	omit onions	omit onions	omit onions	omit onions	omit salt	omit salt	omit onions	omit onions

MENU PLANNING GUIDE (continued)

FOOD CATEGORY: MEAT ENTREES

FOOD CODE LINES

Menu Item	No.	Major Ingredients	1M	1M1	1M2	2M	2M1	3M	4M	4M1	5M	5M1	5M2	6M	7M	8M	8M1	8M2	9M	9M1
Shrimp Creole (Modified)	M-208- 2M	Shrimp, peeled, deveined, onions, chpd, celery, chpd, grn pepper, and tomatoes, chili powder, salt	—	—	—	*	—	—	—	—	omit chili powd onions grn pepper	omit chili powd onions grn pepper	—	omit chili powd onions grn pepper	—	—	—	—	—	—
Seafood Platter	M-214	Perch, scallops, shrimp, salt, eggs, milk, flour, bread crumbs	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pizza Pie	M-220	Beef, grd, tomato paste, and tomatoes, tomato juice, cayenne pepper, thyme, basil, salt, bay leaves, garlic, pizza rounds, mozzarella cheese, pepperoni	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enchiladas	M-221	Onions, salad oil, garlic, granules, chili powder, and tomatoes, tomato paste, beef base, cheese, tortillas	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cold Cut Plate	M-222	American cheese, salami, bologna, liverwurst, ham, fresh tomatoes, lettuce leaves	*	—	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Poor Boy Sandwich	M-224	Cheese, ribbon, New England loaf, bologna, lettuce, submarine rolls, tomato wedge or hard cooked eggs	*	—	—	omit— roll egg	—	—	—	—	(omit salami, bologna, give 2 sli ham)	—	—	—	—	—	—	—	—	—
Cold Meat Plate	M-225	Turkey, roast beef, cheese, and ham	*	—	—	omit— one meat	—	—	omit omit ham ham	—	*	*	—	*	omit ham	omit ham	omit omit ham ham	—	—	—

MENU PLANNING GUIDE (continued)

FOOD CATEGORY: MEAT ENTREES

FOOD CODE LINES

Menu Items	No.	Major Ingredients	1M	1M1	1M2	2M	2M1	3M	4M	4M1	5M	5M1	5M2	6M	7M	8M	8M1	8M2	9M	9M1
Chili Dogs	M-269	Frankfurters, beef, grd, * onions, chpd, garlic, chpd, salt, black pepper, chili powder, paprika, cayenne, tomato paste, cnd tomatoes	*	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ravioli and Meat Sauce	M-270	Ravioli, cnd, bacon drippings, beef, grd, onions, minced, garlic, salt, black pepper, cayenne pepper, basil oregano, bay leaves, worcestershire sauce, cnd tomatoes, tomato paste, rosemary	*	*	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grilled Reuben Sandwich	M-272	Caraway rye bread, butter, russian dressing, corned beef, sli, sauerkraut, swiss cheese	*	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ham Salad (for sandwich)	M-275	Ham, grd, celery, diced, * hard cooked eggs, diced, sweet pickle relish, salad dressing, salt	*	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grilled Cube Steak	M-280	Cube steaks	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	—	thin blend strain
Pan Fried Liver	M-309	Liver, flour, salt	*	*	*	*	*	*	omit salt	omit salt	*	*	*	omit salt	omit salt	omit salt	omit salt	omit salt	—	thin blend strain
Veal Cutlet Italian Style	M-351	Veal cutlet, flour, salt * black pepper, onions, chpd, grn onions, salad oil, garlic mushrooms, cnd tomatoes, oregano	*	*	*	*	*	*	—	—	—	—	—	—	—	—	—	—	—	thin blend strain

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APPENDIX A

Form 1

MASTER RECIPE INDEX
BROOKE GENERAL HOSPITAL
9 SEP 68

BEEF

BAKED BEEF HASH	M-246
BAKED HASH, SEE BAKED BEEF HASH	
BAKED MEAT HASH, SEE BAKED BEEF HASH	
BAKED SPANISH STEAK, SEE SPANISH STEAK	
BAKED STEAK	M-240
BAR B Q GROUND BEEF	M- 41
BAR B Q SLICED BEEF	M-255
BEEF BISCUIT TURNOVERS	M- 45
BEEF CHOP SUEY	M-254
BEEF CUBES CREOLE, SEE CREOLE BEEF CUBES	
BEEF HASH, SEE BAKED BEEF HASH	
BEEF JARDINEER	M- 22
BEEF LASAGNE	M- 44
BEEF LOUISIANNE	M-247
BEEF POT PIE	M- 24
BEEF POT ROAST	M- 2
BEEF SALAD	M-352
BEEF STEW	M- 25
BEEF STEW WITH POTATOES, SEE BEEF STEW	

Source: Master Recipe Index (Excerpt).

Form 2 MENU ITEM WORKSHEET

MENU ITEM WORKSHEET		NAME		NUMBER
		BEEF POT ROAST		M-2
CENSUS ESTIMATE		DAY AND DATE	STATION	TIME
BASIC 100 SV	INGREDIENT	CURRENT AMOUNT	PREPARATION INSTRUCTIONS	PAN
35 lbs	Beef, boneless		1. Rub roast with salt & pepper.	Portion Size
1 1/2 oz	Salt		2. Brown in tilt fry pan. Add stock after meat is browned and simmer on low heat for 2 hours.	OH 90 gm
1/2 oz	Pepper			Wards
2 oz	Stock, Beef		3. Make stock.	Sm 60 gm
2 1/2 qt	Water			Med 90 gm
3 lbs	Onions		4. Add chopped vegetables after meat has cooked for 2 hours.	Lg 120 gm
2 lbs	Celery			Preparation Time (Manhours)
5 lbs	Carrots			Preparation Time (Manhours)
			5. Use stock for making vegetable gravy. (Canned tomatoes may be added to beef stock, if desired)	Cooking Time (Manhours)
				Equipment Code
				6SK or TF
				Recipe Source
				BGH
				Recipe Date
				5 Nov 68
				Supersedes on
				dated 4 Apr 6
FOOD CODE WORKSHEET CODE LINES				
Code lines on which this recipe can be used: 1M, 1M1, 1M2, 2M, 2M1				
For: 9M1 - use 1M2 (grd - Thin, blend, strain)				
3M, 4M, 4M1 - omit salt				
5M, 5M1, 5M2, 6M - omit pepper, onions.				
7M - omit salt, pepper, onions.				
8M - omit salt, pepper, onions				
SPECIAL INSTRUCTIONS:				
COOK PREPARING FOOD ITEM			PERSON RECEIVING INGREDIENTS FROM SUPPLY	

Source: Recipe File. Food Service Division.
Brooke General Hospital. San Antonio.

Form 3 HOSPITAL MASTER MENU

HOSPITAL FOOD SERVICE HOSPITAL MASTER MENU - PARTS II AND III (AR 40-2)					<input type="checkbox"/> DINNER <input type="checkbox"/> SUPPER	DATE	PREPARED BY (Signature of Dietitian)	
DIETARY ANALYSIS	CALORIES	CARBOHYDRATE (gm)	PROTEIN (gm)	FAT (gm)	CALCIUM (gm)	VITAMIN A (i. u.)	PHOSPHORUS (gm)	IRON (mgm)
PART II - DINNER AND SUPPER								
SOUP AND ACCOMPANIMENT	CODE	FOOD CATEGORY	TUESDAY	WEDNESDAY	THURSDAY			
	1A	SOUP AND ACCOMPANIMENT						
	2A	BROTH						
	4A	NA RESTR BROTH						
	5A	CREAM SOUP AND ACCOMPANIMENT						
	5A1	STRAINED CREAM SOUP						
	7A	NA RESTR STRAINED CREAM SOUP						
MEAT AND ACCOMPANIMENT	1M	MEAT AND ACCOMPANIMENT						
	2M	CAL RESTR MEAT (Exch)						
	2M1	FAT CONTROLLED MEAT (Exch)						
	3M	NA RESTR MEAT AND ACCOMPANIMENT						
	4M	NA-CAL RESTR MEAT (Exch)						
	4M1	NA RESTR FAT CONTROLLED MEAT (Exch)						
	5M	BLAND MEAT AND ACCOMPANIMENT						
	6M	FAT RESTR BLAND MEAT (Exch)						
	7M	NA RESTR BLAND MEAT AND ACCOMPANIMENT						
	8M	NA-FAT RESTR BLAND MEAT (Exch)						
	9M	STRAINED MEAT						
	9M1	THINNED STRAINED MEAT						
	10M	MEAT SUB AND ACCOMPANIMENT						
POTATO OR SUBSTITUTE	1P	POTATO OR SUB						
	1P1	POTATO OR SUB (No Protein)						
	2P	CAL RESTR POTATO OR SUB (Bread Exch)						
	3P	NA RESTR POTATO OR SUB						
	3P1	NA RESTR POTATO OR SUB (No Protein)						
	4P	NA-CAL RESTR POTATO OR SUB (Bread Exch)						
	5P	BLAND POTATO OR SUB						
	6P	FAT RESTR BLAND POTATO OR SUB (Bread Exch)						
	7P	NA RESTR BLAND POTATO OR SUB						
	8P	NA-FAT RESTR BLAND POTATO OR SUB (Bread Exch)						
VEGETABLE	1V	VEGETABLE						
	1V1	VEGETABLE (No Protein)						
	2V	CAL RESTR VEGETABLE (Exch)						
	2V1	CAL RESTR VEGETABLE (Exch)						
	3V	NA RESTR VEGETABLE						
	3V1	NA RESTR VEGETABLE (No Protein)						
	4V	NA-CAL RESTR VEGETABLE (Exch)						
	4V1	NA-CAL RESTR VEGETABLE (Exch)						
	5V	BLAND VEGETABLE						
	5V1	BLAND VEGETABLE (Pureed)						
	6V	FAT RESTR BLAND VEGETABLE (Exch)						
	7V	NA RESTR BLAND VEGETABLE						

Source: Department of the Army Technical Manual, TM 8-500. Hospital Diets. Headquarters, Department of the Army, June 1965. U. S. Government Printing Office, 1966. Washington. (Excerpt).

Form 4 FOOD CODE WORKSHEET

FOOD CODE WORKSHEET		<input type="checkbox"/> DINNER	DAY OF WEEK	DATE (Day, month, year)
PART II - DINNER AND SUPPER, HOT FOODS (TM 8-500)				
CODE	FOOD CATEGORY	FOOD ITEM		
SOUP AND ACCOMPANIMENT				
1A	SOUP AND ACCOMPANIMENT			
2A	BROTH			
4A	NA RESTR BROTH			
5A	CREAM SOUP AND ACCOMPANIMENT			
5A1	STRAINED CREAM SOUP			
7A	NA RESTR STRAINED CREAM SOUP			
MEAT AND ACCOMPANIMENT				
1M	MEAT AND ACCOMPANIMENT			
1M1	MEAT (Cut) AND ACCOMPANIMENT			
1M2	MEAT (Ground) AND ACCOMPANIMENT			
2M	CAL RESTR MEAT (Exch)			
2M1	FAT CONTROLLED MEAT (Exch)			
3M	NA RESTR MEAT AND ACCOMPANIMENT			
4M	NA-CAL RESTR MEAT (Exch)			
4M1	NA RESTR FAT CONTROLLED MEAT (Exch)			
5M	BLAND MEAT AND ACCOMPANIMENT			
5M1	BLAND MEAT (Cut) AND ACCOMPANIMENT			
5M2	BLAND MEAT (Ground) AND ACCOMPANIMENT			
6M	FAT RESTR BLAND MEAT (Exch)			
7M	NA RESTR BLAND MEAT AND ACCOMPANIMENT			
8M	NA-FAT RESTR BLAND MEAT (Exch)			
8M1	NA-FAT RESTR BLAND MEAT (Cut) (Exch)			
8M2	NA-FAT RESTR BLAND MEAT (Ground) (Exch)			
9M	STRAINED MEAT			
9M1	THINNED STRAINED MEAT			
10M	MEAT SUB AND ACCOMPANIMENT			
	SELECT MEAT			
POTATO OR SUBSTITUTE				
1P	POTATO OR SUB			
1P1	POTATO OR SUB (No Protein)			
2P	CAL RESTR POTATO OR SUB (Bread Exch)			
3P	NA RESTR POTATO OR SUB			
3P1	NA RESTR POTATO OR SUB (No Protein)			
4P	NA-CAL RESTR POTATO OR SUB (Bread Exch)			
5P	BLAND POTATO OR SUB			
6P	FAT RESTR BLAND POTATO OR SUB (Bread Exch)			
7P	NA RESTR BLAND POTATO OR SUB			
8P	NA-FAT RESTR BLAND POTATO OR SUB (Bread Exch)			
9P	MASHED POTATO			
9P1	THINNED STRAINED MASHED POTATO			
9P2	REFINED POTATO SUB			
	SELECT POTATO			
VEGETABLE				
1V	VEGETABLE			
1V1	VEGETABLE (No Protein)			
2V	CAL RESTR VEGETABLE (Exch)			
2V1	CAL RESTR VEGETABLE (Exch)			
3V	NA RESTR VEGETABLE			
3V1	NA RESTR VEGETABLE (No Protein)			
4V	NA-CAL RESTR VEGETABLE (Exch)			
4V1	NA-CAL RESTR VEGETABLE (Exch)			
5V	BLAND VEGETABLE			
5V1	BLAND VEGETABLE (Pureed)			
6V	FAT RESTR BLAND VEGETABLE (Exch)			
7V	NA RESTR BLAND VEGETABLE			
8V	NA-FAT RESTR BLAND VEGETABLE (Exch)			
9V	STRAINED VEGETABLE			
9V1	THINNED STRAINED VEGETABLE			
	SELECT VEGETABLE			

Source: Department of the Army Technical Manual, TM 8-500. Hospital Diets. Headquarters, Department of the Army, June 1965. U. S. Government Printing Office, 1966. Washington. (Excerpt).

A MENU PLANNING GUIDE FOR LARGE ARMY HOSPITALS

by

ONETA DOWNEY TROY

B. S., Florida State University, 1961

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Institutional Management

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1970

Planning menus is a complex and time-consuming task which demands academic knowledge of basic requirements to be tempered with experience. The purpose of this study was to develop a menu planning guide to assist dietetic interns at army hospitals. As a basis for menu development, a review of menu planning factors, procedures, and evaluation criteria was included. Trends in computer assisted menu planning were discussed as a solution to the menu planning problem that results from limitations experienced when menus are planned manually.

Menu planning is concerned with three primary objectives: meeting nutritional standards, economical diets, and acceptability of menus. These objectives are evaluated in terms of production capabilities, variety in menu items, preparation methods, and food combinations. The type of menu, pattern, and forms depends on administrative policy of the institution. Menus may be non selective, selective, or cyclic which may be either non selective or selective. Cycle menus are used extensively in hospitals and can be an effective management tool if they are reviewed and adjusted to changing conditions.

The selection of menu items is centered on the choice of the main entree and modified diets are planned as variations of the regular diet which reduces food purchases and simplifies food preparation. The menu planning guide developed in this study consolidates pertinent information for selecting meat items to be included on regular and modified diets.