

# Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



A321.9  
R31

# NUTRITION PROGRAMS FOR THE ELDERLY - -

A Guide to Menu Planning, Buying, and the  
Care of Food for Community Programs

ARS 62-22  
July 1972

U. S. DEPT. OF AGRICULTURE  
NATIONAL AGRICULTURAL LIBRARY  
RECEIVED

AUG 1 1972

PROCUREMENT SECTION  
CURRENT SERIAL RECORDS





## ACKNOWLEDGMENTS

This publication was prepared by the Agricultural Research Service at the request of the Administration on Aging, Social and Rehabilitation Service, U.S. Department of Health, Education, and Welfare. The text was developed from material prepared by Irene H. Wolgamot under contract with the Agricultural Research Service, and from information drawn from many sources including publications of the U.S. Department of Agriculture; the U.S. Department of Health, Education, and Welfare; the National Council on the Aging; and Meals on Wheels, Inc. Mary M. Hill, Consumer and Food Economics Research Division, was responsible for preparing some sections of the publication.

## PREFACE

Concern for the well-being of the Nation's elderly has focused attention on their need for adequate nutrition. Community programs that provide nutritious meals for older persons help to meet this need. Such programs often combine the professional skills of persons in nutrition, education, psychology, social work, and recreation with those of both paid and volunteer community workers.

To assist persons working on these programs, this publication offers information on meal patterns with sample menus, and suggestions for menu planning, buying and storing foods, conserving the nutrients in food, keeping foods safe to eat, and packaging meals for home delivery.

Meals delivered to the homebound can contribute to the health of the aged and enable them to live at home. Meals served to groups in a central location can help satisfy both nutritional and social needs.

Paid and volunteer workers, in addition to providing meals, should work with professional community resource persons to motivate program participants to eat with enjoyment the assortment of foods provided and to supplement them, as needed, with other meals that can lead to an adequate daily intake.

## CONTENTS

	<u>Page</u>
Food is important .....	1
Group meals .....	3
Home-delivered meals .....	4
Sample meal patterns .....	5
Planning meals .....	15
Buying foods .....	26
Storing foods .....	29
Protecting foods from nutrient loss .....	31
Keeping foods safe to eat .....	32
Packaging meals for home delivery .....	34
A guide to common can sizes .....	36
Cost of a 3-ounce serving of lean meat .....	36
Cost-weight table .....	36
References .....	42





2007

22,44P.

July 1972

NUTRITION PROGRAMS FOR THE ELDERLY ;

A Guide to Menu Planning, Buying, and the  
Care of Food for Community Programs 14

~~By~~ Louise Page 14

Consumer and Food Economics Research Division, Agricultural  
Research Service, United States Department of Agriculture

FOOD IS IMPORTANT

Food is basic to good nutrition. Nutrition means how your body uses the food you eat for your well-being, health, and vigor.

Food furnishes a complete variety of substances--nutrients like protein, vitamins, and minerals--that are essential for building, upkeep, and repair of the body and for keeping it running in an efficient, orderly way. Food also supplies energy for work and leisure-time activities..and to keep alive and going.

Everyone, throughout life, needs the same nutrients but in varying amounts. Older persons need the same nutrients as younger persons. They can get all the nutrients they require from foods, but no one food contains all the nutrients in needed amounts. Thus, a variety of different kinds of foods must be eaten.

Food is important for other reasons, too. It has a deep, personal meaning to people throughout life. Beginning in infancy, persons associate food with comfort, security, and a sense of belonging. Elderly people link food with memories of earlier years, and usually prefer familiar foods prepared and served in accustomed ways. Because food is an important part of each person's life experience, it can play a major role in helping one to feel comfortable, secure, and happy.

Need for Meal Service Programs

Elderly persons dependent on their own resources often do not get the kinds of meals they need to maintain their nutritional health for many reasons.

• Those who live alone may have little interest in preparing food and eating it by themselves. This is true both of older women who have spent years cooking for a family and of older men who are reluctant to take on the responsibility of planning and preparing their own meals. Even those who are interested may find planning meals and buying and preparing food difficult.

• Money for food may be limited.

- Food shopping may be a problem because of lack of transportation, inability to carry heavy groceries, and difficulty in choosing from the bewildering variety of foods in today's markets.

- Some elderly persons do not have adequate equipment at home for storing and preparing foods.

A prime need for many of the elderly is to have a good assortment of foods made available to them--the aim of meal-service programs. Even providing one meal a day can mean supplying a substantial share of the day's food needs if the meal is carefully planned to furnish a variety of foods in reasonable amounts.

Meals for the elderly are usually served to groups in a community setting, or they are delivered to the home. Experience shows that group meal programs can lead to involving the elderly in social activities and in community responsibilities, thereby helping to prevent their isolation from other people. For this reason, group meals have an obvious advantage over home-delivered meals. For those who are homebound and have no one to prepare meals for them, however, home-delivered meals are an answer.

In some programs, meals are delivered at home to regular participants of groups meals who are temporarily ill. In fact, the same program can routinely provide both group and delivered meals. Menus can be essentially the same for both types of meals, and the food can be prepared in the same kitchen. Modifications for home-delivered meals, if needed, are usually the result of problems of packaging and transporting the food.

### Need to Reach the Elderly

Making meals available is no assurance that everyone who needs them will take part in meal-service programs. Constant and conscious effort must be made to reach the elderly. Try reaching them through--

- Newspapers, flyers, radio, and TV announcements
- Health and welfare agencies
- Voluntary agencies
- Physicians
- Public health nurses
- Social workers
- Participants already involved in meal-service programs

Experience shows that usual channels for informing people--newspapers, flyers, radio, and TV announcements--are not sufficient by themselves. Special inducements are often needed. These are best provided by the person-to-person approach. For example, regular participants in community meal programs can help by--

- Encouraging other older persons to come to centers for food and social activities.
- Making newcomers to the program feel comfortable and part of the group.

- Visiting the homebound who receive meals and encouraging them to come to the centers for their meals, if this is physically possible.

### Need for Food and Nutrition Education

Participants need to understand the importance of eating the meals they receive. They also need guidance in making wise food choices for other meals eaten during the day not provided by the program. For these reasons, many meal-service programs include food and nutrition education activities as a part of their program.

Professional persons who can help with education activities are available in many communities. These include both retired and working dietitians, public health nutritionists, extension nutritionists, home economists in utility companies, and teachers of food and nutrition in nearby colleges and secondary schools. Learning experiences should be built around the following ideas--

- A good assortment of food is important to the health and well-being of older persons.
- Many combinations of food provide a good assortment. Familiar and favorite foods can be included in these combinations.
- Older persons can enjoy tasting new foods and foods prepared by unfamiliar methods.
- Each older person participating in the group meal or meal-delivery program has responsibility for making good food choices for other meals eaten throughout the day. To learn how to make good choices is easy.

A special guide adapted to the needs of older persons has been developed and can be used in education programs. Single copies of "Food Guide for Older Folks" G-17 can be obtained without cost from the Office of Information, U.S. Department of Agriculture, Washington, D. C. 20250. Include your ZIP number with your request.

### GROUP MEALS

Nutritious meals served to older persons in groups can meet many needs of the elderly. They contribute to better nutrition and health. They give opportunity for companionship. They provide a new interest, a reason for getting out of doors, and a place to go.

Meals served.--Programs vary, with the noon meal most commonly served. More than one meal a day may be furnished. Some programs supply an evening snack meal to carry home in addition to a hot meal at noon, and some provide take-home meals on Friday for the weekend.

Participants must make their own arrangements for the other meals during the week not provided by the program, and for weekend meals if food is served only 5 days a week.

Type of meal service.--Either family-style or cafeteria-style food service can be used. Cafeteria-style service has the advantage of offering an opportunity for better control over serving size and food selection. If foods are served cafeteria style, everyone has a chance for the same amount of food, if they want it. Some persons may be more willing to eat a food if it is served to them. Persons serving themselves family style, on the other hand, may ignore several foods on the menu, or those served first may take more than their share, shortchanging others.

If some participants have difficulty going through a cafeteria line, the two types of food service might be combined. They could pick up the main part of their meal in the line, but the beverage, and perhaps dessert, could be served to them at the table. Some older folks find beverages, in particular, hard to handle when carrying foods to the table.

Tables for four to eight seem to best promote sociability. However, other seating arrangements may be successful in some programs.

#### HOME-DELIVERED MEALS

Many homebound elderly persons can cope with all the demands of everyday living except foodshopping and meal preparation. They cannot prepare or obtain adequate meals. They cannot afford or do not want to move into an institution. A home-delivered meal service contributes to their health, comfort, and dignity by enabling them to remain at home, whether in a house, apartment, or room.

Meals served.--Most meal-delivery programs provide either a hot lunch or a lunch (or supper) and a dinner, one of which is delivered hot. Some programs furnish breakfast and lunch, and some provide all three meals. Meal service is usually offered 5 days a week with some programs making deliveries 6 or 7 days a week. Not all programs, however, deliver meals on legal holidays. Participants must make arrangements for meals other than those delivered.

Home facilities.--The elderly need instructions on safe care of food if meals are not eaten soon after delivery. Refrigerator storage is essential to keep readily perishable foods safe to eat, if meals are held in the home before eating. Thus, if persons do not have a refrigerator, ready access to one, or other means of adequately keeping food cold, a system other than home-delivered meals should be sought to provide meals. Unless, of course, some arrangement can be made to deliver meals just before the time they are to be eaten. Lack of adequate facilities in the home severely limits the kinds of foods that can, with safety, be included in meals intended to be eaten several hours after delivery. A range, hot plate, or other means of heating food in the home is also desirable.

Emergency food supply.--Participants must maintain in their homes an emergency shelf of food in case meal delivery is cancelled because of weather or other reasons. Persons should be made aware of this need before they enter

a meal delivery program. A list of suggested foods for them to keep on hand follows: 1/

Canned juice such as citrus and tomato  
Whole or nonfat dry milk or evaporated milk  
Canned or dehydrated soups (including instant soups)  
Instant or ready-to-eat cereal  
Canned meat or fish  
Canned vegetables  
Dried fruits such as prunes, figs, dates, raisins  
Peanut butter  
Crackers and cookies (enriched, if available; check labels to be sure)  
Jam, jelly, marmalade  
Instant coffee, tea, chocolate, or cocoa  
Salt, pepper, sugar, coffee whitener (if desired)

Suggest that participants purchase foods in individual serving size containers if proper home storage of unused portions of food will be a problem once a container is opened. Opened canned food should be kept refrigerated. Foods such as canned juices, soups, meat, fish, and vegetables, and ready-to-eat cereal are available in small containers.

Check to see if participants are able to obtain the foods needed for their emergency supply. If they are not able to do so, arrange for the meal-delivery program to get the food for them or see that a relative or friend obtains the food.

Caution participants to keep their emergency shelf full and replace items as they are used. If the meal-delivery program takes responsibility for the emergency supply, instruct participants to notify you when food is used. They may use items at times other than when meal delivery is cancelled.

Food stamps.--Older citizens with low-income using Federal food stamps can take advantage of home-delivered meal service. New regulations permit elderly food stamp participants who are unable to prepare their meals to use food stamps to pay for home-delivered meals from nonprofit delivery services authorized to redeem the coupons.

#### SAMPLE MEAL PATTERNS

One way to help assure well-balanced meals is to follow a meal pattern in planning menus. A sample meal pattern is given below that can be used for lunch (supper) or dinner for either home-delivered meals or group meals. These are the two meals most often served in programs providing meals for the elderly. Both the kinds of foods and the minimum amounts of foods to include in meals are suggested. Additional food can be served, if desired.

1/ Adapted from a list used by Meals on Wheels, Inc.

## Sample Meal Pattern I

Food	Amount
Meat or alternate	3 ounces cooked lean meat (without bone)
Vegetables and fruits	2 or more servings to total $\frac{3}{4}$ cup
Bread or alternate	1 slice
Butter or margarine	1 teaspoon
Dessert	$\frac{1}{2}$ cup
Milk	$\frac{1}{2}$ pint

Note.--Suggested alternates and amounts to serve are given on pages 8 to 14.

The pattern provides a framework for planning meals that are intended to furnish, on an average, at least one-third of the Recommended Dietary Allowances for older adults as established by the Food and Nutrition Board, National Academy of Sciences-National Research Council. Broad food choices are possible within the pattern so that cultural, ethnic, and religious food practices of participants can be considered in meal planning.

Each type of food in the pattern makes a special contribution towards a well-balanced meal. For this reason all types of foods listed should be included when meals are planned. Equally important is the amount of food served if the nutritional quality of meals is to be safeguarded. Serve at least the amounts suggested if possible.

Some of the nutritional reasons why the different foods are included in the pattern are given on pages 8 to 14, along with other information about the foods. Certain key nutrients are emphasized, although most foods furnish many different nutrients.

Not all the food listed for a meal needs to be eaten at one time. In some situations, some food may be provided for a meal that can be saved and eaten later--for example, fresh fruit, cookies, speciality breads, rolls. Such food should be a boon to persons with small appetites who like several small meals a day rather than fewer large ones.

Meals for both types of programs--group meals and home-delivered meals--can be prepared in the same kitchen. If the sample meal pattern is not used in planning menus, professional assistance in planning is advisable. Consultant help, if needed, is often available from local dietitians, nutritionists,

and home economists. Contact the public health department, hospitals (dietary department), extension service (home demonstration agents), welfare agencies, Red Cross, Dairy Council, secondary schools, colleges, or local dietetic and home economics associations for assistance in locating qualified persons who might be interested in helping with your program.

### Sample Meal Pattern II

Often lunch (or supper) is a smaller meal than the main meal of the day. You may want to use the meal pattern below, if a smaller meal is wanted.

Food	Amount
Meat or alternate	2 ounces cooked lean meat (without bone)
Vegetables and fruits	1 or more serving to total 1/2 cup
Bread or alternate	1 slice
Butter or margarine	1 teaspoon
Dessert	1/2 cup
Milk	1/2 pint

Note.--Suggested alternates and amounts to serve are given on pages 8 to 14.

Minimum amounts suggested for meat and for vegetables and fruits are less than amounts shown in Meal Pattern I. Cutting down on these foods affects the level of nutrients provided so that meals planned following this pattern may not furnish as much as one-third of the Recommended Dietary Allowances for older adults. However, if two meals a day are served by a program--one planned following Meal Pattern I and one planned following Meal Pattern II, the two meals together probably will furnish, on the average, as much as two-thirds of the allowances.

When only one meal a day is offered in a meal-service program, use Meal Pattern I as the guide. It provides more food and thus is a better safeguard for meeting food needs than Meal Pattern II.

## About the Foods in the Pattern

### Meat or alternate

- Foods included

Meat, poultry, fish, variety meats like liver, heart, kidney, luncheon meats, eggs, cheese.

Cooked dried beans or peas and peanut butter can be used occasionally for variety.

- Nutritional importance

These foods are valued for their protein, which is needed for growth, maintenance and repair of body tissues--muscle, organs, blood, skin, and hair. Protein also helps form antibodies to fight infection.

Besides protein, many of these foods supply considerable iron, thiamin, riboflavin, niacin, other minerals and vitamins, and variable quantities of fat.

- How to serve

Meats or alternates can be served by themselves or combined with other foods in casseroles, loaves, patties, croquettes, stews, soups, salads, sandwiches.

- Amounts to serve

The 2 and 3 ounces suggested as minimum amounts in the patterns refer to cooked lean meat. The weight does not include bone and fat. (Buying guides listed on page 42 will help you determine how much cooked lean meat you get from meats served with the bone in, such as chicken parts and pork chops.)

One egg, 1 ounce of hard cheese such as cheddar and swiss, 1/4 cup cottage cheese, 1/2 cup cooked dried beans or peas, or 2 tablespoons peanut butter can be used to replace 1 ounce of cooked lean meat.

Combinations of two or more foods can be used to provide the suggested 2 or 3 ounces of cooked lean meat or equivalent amount of an alternate food. To illustrate:



For 3 ounces--

cheeseburger (2-ounce cooked beef pattie  
plus 1-ounce slice of cheese)

OR

bologna (1 ounce) and cheese (1 ounce)  
sandwich plus 1 deviled egg.

For 2 ounces--

1/2 cup baked beans plus 1 ounce ham

OR

pineapple-cottage cheese salad (1/4 cup  
cottage cheese) plus beef stew containing  
1 ounce of cooked lean meat per serving.

### Vegetables and fruits

- Foods included

All vegetables and fruits

- Nutritional importance

Vegetables and fruits are valuable for the vitamins and minerals they contain and for the roughage they provide.

Dark-green and deep-yellow vegetables and deep-yellow fruits are noteworthy for vitamin A, necessary for general health. This vitamin is needed for healthy skin, including the inner linings of the body. It also influences the ability of the eye to adjust to limited amounts of light.

Citrus fruits are a leading source of vitamin C, which is a vital part of the material that helps to hold body cells together and therefore is of importance to healthy growth and maintenance of teeth, bone, tissues, and vessels. Several other fruits and vegetables, listed below, are also reliable sources of vitamin C.

- How to serve

Vegetables--

Raw or cooked. Alone or mixed with other vegetables, or combined with other foods in soups, stews, casseroles, salads. As a juice.

Fruits--

Raw or cooked. Alone or mixed with other fruits, or combined with other foods in salads, appetizers, desserts. As a juice.

- Amounts to serve

For Meal Pattern I (page 6)--

Two or more items to total  $3/4$  cup. For example..

$1/2$  cup peas plus peach-cottage cheese salad containing  $1/4$  cup sliced peaches

OR

$3/8$  cup carrots plus  $3/8$  cup spinach

OR

$1/2$  cup cole slaw plus 1 cup beef stew containing  $1/4$  cup vegetables per serving.

For Meal Pattern II (page 7)--

One or more servings to total  $1/2$  cup. For example..

$1/2$  cup apple, celery, raisin salad

OR

$1/2$  cup corn

OR

$1/4$  cup waxed beans plus  $1/4$  cup asparagus.

- Other points to consider

To help make sure that meals provide their share of vitamin C and vitamin A, try to include...

--A serving of a source of vitamin C in at least one meal each day.

Choose from--

Cantaloup	Asparagus
Grapefruit or juice	Broccoli
Guava	Brussels sprouts
Honeydew melon	Cabbage
Lemon	Cauliflower
Mango	Collards
Orange or juice	Garden cress
Papaya	Green pepper
Strawberries (raw)	Kale
Tangerine or juice	Kohlrabi
Watermelon	Mustard greens
	Potatoes and sweetpotatoes (cooked in jacket)
	Rutabagas
	Spinach
	Sweet red pepper
	Tomatoes or juice
	Turnip greens

--A serving of a source of vitamin A in three or more meals each week. .

Choose from--

Apricots	Broccoli
Cantaloup	Carrots
Mango	Chard
Persimmon	Collards
	Cress
	Kale
	Pumpkin
	Spinach
	Sweetpotatoes
	Turnip greens and other dark-green leaves
	Winter squash

COUNT AS A SERVING: 1/2 cup or 1 piece of fruit or vegetable as ordinarily served, such as 1 medium orange or potato or 1/2 of a medium grapefruit.

Rice, spaghetti, macaroni, and noodles are not vegetables.

Fruit served as a dessert should be counted only as dessert if the meal patterns are followed in menu planning. If counted twice--both as dessert and as a part of the suggested amount of vegetables and fruits--meals may be short in food.

Fruit drinks, fruit-juice drinks, and fruit-flavored punches are not 100 percent fruit juice. Some of these types of products contain little fruit juice. For this reason it is a good idea not to use them to count towards the suggested 3/4 cup or 1/2 cup of fruits and vegetables. However, you may want to serve them occasionally in addition to other foods in the meal pattern. CHECK THE LABEL TO SEE WHAT THE PRODUCT IS.

### Bread or alternate

- Foods included

Enriched or whole-grain--

Bread, biscuits, muffins, rolls, sandwich buns, and cornbread and other hot breads.

Macaroni, spaghetti, noodles, and rice.

- Nutritional importance

These foods furnish worthwhile amounts of thiamin, niacin, iron, and protein, and also help out with other vitamins and minerals and with food energy.

- Amounts to serve

1 slice bread; 1 biscuit, muffin, roll, or sandwich bun; 1 portion cornbread or other hot bread.

1/2 to 3/4 cup of cooked macaroni, spaghetti, noodles, or rice can be used in place of the bread for variety, if desired. Or they can be used in addition to the bread.

### Butter or margarine

- Nutritional importance

These foods supply mainly energy (calories) and vitamin A.

- How to serve

Butter or margarine can be used as a spread for the bread or in food preparation including seasoning vegetables.

### Desserts

- Foods included

All fruits.

Simple desserts such as puddings, gelatin desserts, ice cream, ice milk, sherbet.

Cake, pie, cookies, and similar foods.

- Nutritional importance

These foods round out a meal in a number of ways. Their main contribution usually is energy (calories). They also supply varying amounts of protein, vitamins, and minerals.

- How to serve

Fruit may be served raw or cooked.

- Amounts to serve

1/2 cup or 1 piece of fruit as ordinarily served, such as 1 medium apple, orange, banana, 1/2 of a medium grapefruit.

1/2 cup of puddings, gelatin desserts, ice cream, ice milk, sherbet. A scoop or two of the frozen desserts, depending on the size of the scoop. A slice of brick ice cream.

2 or 3 small cookies or 1 or 2 large cookies; 1 portion of pie or cake.

- Other points to consider

Cakes, cookies, and pie shells made with enriched flour are more nutritious than those made with unenriched white flour.

## Milk

- Foods included

Milk, cheese, ice milk, ice cream.

- Nutritional importance

Milk is a leading source of calcium, essential for the formation of bones and teeth and for helping keep bones strong. Calcium is also required for the proper functioning of muscles and nerves and for the normal clotting of blood.

In addition, milk is an important contributor of riboflavin and high-quality protein and also provides many other vitamins and minerals, as well as carbohydrates and fats.

Cheese and ice cream supply the same nutrients as milk does, but in different proportions.

- How to serve

As a beverage.

Combined with other foods--in cream soups, creamed meat dishes, creamed vegetables; and in desserts--custards, milk puddings, tapioca, rice pudding, junket.

In the form of cheese, ice cream, ice milk.

- Amounts to serve

1/2 pint (1 cup) of milk in a meal.

1 ounce of cheddar-type cheese can be used in place of 2/3 cup of milk.

1/2 cup of cottage cheese, ice cream, or ice milk can be used in place of 1/3 cup of milk.

- Other points to consider

--Try to serve vitamin D fortified milk to participants who are homebound.

If people are not able to get out of doors and into the sunlight, they may not be getting enough vitamin D. One source of this vitamin is through the action of sunlight on a cholesterol-like substance in the skin, which is changed into vitamin D.

--If milk in the form of cheese is used to replace the meat in a meal or if a dessert made with milk is served, try to...

Serve milk as a beverage, too.

OR

Serve more food than is suggested in the meal pattern...larger servings or additional food.

Otherwise the meal might not provide enough food because the cheese and dessert are counted twice--as a replacement for milk and as a meat alternate or dessert.

## Use of ready-to-heat-and-eat foods

Some programs will want to purchase ready-to-heat-and-eat foods such as frozen or canned main dishes and frozen meals (combinations of main dish and vegetables). If you are using the meal pattern as your guide to menu planning, you will need to know how much meat and vegetables the portions provide. If this information is not on the label or is not available from the processor or supplier, individual servings can be checked from time to time to determine amounts furnished. Individual servings of meat can be weighed and individual servings of vegetables can be measured. If the product is a mixture, separate the meat and vegetables; weigh the meat and measure the vegetables.

You may find "Standards for Meat and Poultry Products: A Consumer Reference List" helpful. This list is published by the U.S. Department of Agriculture and shows the percentage of meat, poultry, and certain other ingredients in a number of products. Single copies of the list can be obtained without cost from the Information Division, APHIS, U.S. Department of Agriculture, Washington, D.C. 20250. Include your ZIP number with your request.

## About Other Foods Used in Preparing and Serving Meals

### Fats

- Try to include some vegetable oils among the fats used.

Most vegetable oils are a good source of linoleic acid, a polyunsaturated fatty acid that is an essential nutrient. Margarines, salad dressings, mayonnaise, and cooking oils are made from vegetable oils. Soft margarines are higher in linoleic acid than regular margarines. Many vegetable oils are worthwhile sources of vitamin E.

### Salt

- Iodized salt is a good choice for use in food preparation, at the table, or with home-delivered meals for persons who can have salt added to food.

Iodine is an essential mineral needed for proper functioning of the thyroid gland.

## PLANNING MEALS

Careful planning is essential if you want to provide meals that are appealing, that provide for nutritional needs, and that fit within the food budget. Here is a suggested plan to follow:

## Plan Menus Ahead of Time

- Plan meals at least one week ahead of time.

You may find that planning two to four week ahead--or even further ahead--works best for you.

- Consider the use of cycle menus.

Cycle menus repeat a set of menus over a period of time. The cycle may cover only the main dish, or it may include the entire meal. A fairly long cycle, covering at least a month or month and a half, is desirable to avoid repeating menu items frequently. This is especially important if the cycle includes menus for the entire meal. Unless the cycle is for several weeks, persons receiving the meals may find eating the same combinations of foods monotonous if they get them every week or so.

One factor in determining the number of days in a cycle is the number of days each week meals are served. The cycle should be planned so that the same menus do not always fall on the same day of the week. For example, if meals are served 5 days each week, Monday through Friday, and the number of days in the menu cycle are divisible by 5--such as 20 or 25 days--then menus 1, 6, 11, 16, and 21 would always be used the same day of the week. With a cycle of 21, 22, 23, or 24 days, this problem would not occur.

Sometimes cycle menus are planned for each season. This allows for use of fresh foods that are available during only a part of the year.

Use of cycle menus can save time in menu planning, ordering food, and scheduling food preparation.

Cycle menus or other menus planned ahead can be changed as needed--

- To allow for Sundays, holidays, and other special occasions.
- To make possible the use of a meat or other food available at a special price.
- To replace items that become unpopular or too costly or that are no longer available.

## Follow a Meal Pattern

- Use a pattern, such as the ones shown on pages 6 and 7 as a guide to planning menus. This way you will not leave important kinds of foods out of meals.



## Select the Foods

Many factors need to be taken into account when planning meals. These include--

- Nutritional needs of persons served.

A device used to help protect the nutritional quality of meals is the meal pattern that specifies both the kinds and amounts of foods to serve. For example, the pattern shown on page 6 provides a framework for planning meals that are intended to furnish, on an average, at least one-third of the Recommended Dietary Allowances for older adults.

- Ethnic, cultural, and religious backgrounds of participants.

Elderly persons from different ethnic, cultural, and religious backgrounds can be expected to participate in meal-service programs. Often these different backgrounds are characterized by special dietary practices. Learn about the background of the participants in your program and any special dietary practices they may have. Keep these practices in mind when planning menus.

- Food likes and dislikes of persons served.

Food preferences of participants may be determined in a number of ways:

- Obtain information on food likes and dislikes as participants enter the program.
- Use selective menus that offer choices among menu items.
- Listen to comments about food served in a group setting and ask for comments from the homebound.
- Check the kind and amount of food left on the plate (group meals).
- Ask for menu suggestions.
- Work with a committee of participants selected to help with menu planning.

Experience shows that the process of assembling meals can be expensive and time-consuming when individual food preferences are catered to. The increased expense is due largely to the need for more help to get a meal ready. Thus, to consider individual preferences may not be practical if a large number of persons are served. However, omitting foods disliked by a number of persons--or serving them only occasionally--and including popular foods frequently should be possible.

Experience also indicates that the elderly taking part in meal-service programs like familiar foods that one or two persons living alone cannot prepare economically or with ease. Roasts are an example. Too, the elderly show a willingness to try new foods when eating in a group situation.

- Availability of foods.

Foods are generally less expensive when they are in season and are in plentiful supply. Quality of fresh fruits and vegetables is likely to be at its peak at this time.

- Variety

Plan for variety in food selection...

--From day to day	<u>THIS</u>	<u>NOT THIS</u>
Monday	Roast beef	<u>Frankfurter</u> and <u>baked beans</u>
Tuesday	Fried chicken	<u>Frankfurter</u> on a roll
Wednesday	Frankfurter and bean soup	<u>Frankfurter</u> and <u>bean soup</u>

--From week to week	<u>THIS</u>	<u>NOT THIS</u>
First Monday	Macaroni and cheese	<u>Meat loaf</u>
Second Monday	Meat loaf	<u>Meat loaf</u>
Third Monday	Pork chops	<u>Meat loaf</u>

--From time to time

Introduce a new food. Serve a small amount of the new food along with popular foods for better acceptance.

Plan for variety in food preparation...

--In the same meal.	<u>THIS</u>	<u>NOT THIS</u>
	Oven-roasted potatoes	<u>Creamed</u> potatoes
	Creamed spinach	<u>Creamed</u> spinach

--Of the same food

THIS

NOT THIS

Prepare in different ways...

Potatoes--baked, fried, mashed, scalloped, oven-roasted, creamed, etc.

Potatoes mashed each time potatoes are served

Plan for variety in sizes and shapes of food...

--In the same meal

THIS

NOT THIS

Oven-roasted potatoes  
Sliced beets  
Fruit cocktail

Diced potatoes  
Diced beets  
Fruit cocktail

Casserole  
Green string beans  
Lettuce wedge with French dressing

Casserole  
Mixed vegetables  
Combination vegetable salad

(ALL MIXTURES OF FOODS)

- Taste and appearance of food

Use a combination of food flavors...

--Bland foods with stronger flavored or tart foods

THIS

NOT THIS

Baked white fish with creole sauce  
Mashed potatoes  
Broccoli

Baked white fish  
Mashed potatoes  
Carrots

--Foods with different flavors in the same meal

THIS

NOT THIS

Tomato juice cocktail  
Waldorf salad  
Banana cream pie

Fruit cup with bananas  
Banana-nut salad  
Banana cream pie

Use a combination of food textures...

--Crisp, firm foods  
with soft, chewy  
ones

THIS

NOT THIS

Creamed eggs  
Green peas  
Fresh vegetable  
salad

Creamed eggs  
Mashed potatoes  
Cottage cheese salad  
Dessert

--Limit the number of  
"starchy" foods in a  
meal.

THIS

NOT THIS

Macaroni  
Stewed tomatoes

Potatoes  
Macaroni

Noodles  
Asparagus

Noodles  
Corn

Sweetpotatoes  
Steamed cabbage

Sweetpotatoes  
Rice

Use a pleasing combination of food colors...

--Have one or two color-  
ful foods in a meal

THIS

NOT THIS

Sliced white meat  
of turkey  
Broccoli  
Yellow corn

Sliced white meat  
of turkey  
Rice  
Steamed cauliflower

--Limit the number of  
foods of the same  
color in a meal

THIS

NOT THIS

Spaghetti with  
tomato sauce  
Summer squash  
Chocolate cup cake

Spaghetti with tomato  
sauce  
Harvard beets  
Fruited raspberry  
gelatin dessert

Use garnishes to brighten meals...

--A slice of radish or cucumber, stuffed olives, a tomato wedge,  
sieved egg yolk, a bit of brightly colored fruit, chopped parsley,  
a dash of paprika--as examples.

- Equipment

Plan meals that can be prepared with the equipment at hand--

- Keep in mind the oven space, top of range cooking space, and refrigerator space that is available.
- Keep in mind the number and kinds of tools, small equipment, and dishes for preparing and serving meals that are available.

- Personnel

Plan meals that can be prepared by the help available in the scheduled time. Take into account--

- The need for last minute preparation.
- The possibility for advance preparation, if it can be done without sacrificing nutritional or eating quality of the food.
- The scheduling of the work load from day to day so the help will not be overworked one day and have time on their hands the next day.
- The use of partially prepared or ready-to-eat foods to reduce the work load, if the price is right.
- The training and experience of the food service workers. Be sure they are familiar with preparation methods required for all menu items.

- Cost

Check to see if your program is eligible to receive free food from the United States Department of Agriculture, if food money is limited.

- A number of foods used regularly in quantity food service are available to eligible nonprofit institutions. Such foods include flour, nonfat dry milk, butter, salad oil, shortening, rice. Their use can cut food costs substantially.
- States differ in the agency authorized to distribute the donated foods. Contact your State Office of Aging to find out the proper agency for your State.

Check on the following if food costs are high--

- Meat selections.

The main dish item is usually the most expensive part of the meal. Compare costs of equal-sized servings of various types and cuts of meat to find which are the better buys. (See table 1, page 38, for help in making cost comparisons.)

--Fruit and vegetable selections.

Some fruits and vegetables--for example, fresh produce out of season--can be quite costly. To find the best buys, you need to compare costs for a single serving. You can figure the cost of a serving by dividing the price of a pound, or a can, or a package by the number of servings the pound, can, or package provides. Keep in mind, though, the amount of labor required to prepare the vegetable or fruit for eating. Unless you have volunteer help, this can add to the expense of preparing a meal.

--Quality of foods purchased.

Use of foods of unnecessarily high quality for the intended use adds to the cost of meals--Grade AA eggs in baking; tender cuts of meat for stew; fancy-pack fruit for fruit cup, pies, or cobblers.

--Variety of foods in meals.

It may cost less to prepare and serve larger amounts of a few foods than smaller amounts of a greater number of foods. For example, costs may be less if only two foods are used to provide the suggested 3/4 cup of vegetables and fruits in Meal Pattern I than if three foods are used.

--Food waste.

Excessive food waste may reflect the purchase of poor quality food, poor food preparation practices, use of untested recipes, serving too much food, or serving unpopular foods. Check to learn the cause of the high waste and take measures to correct the situation.

● Special considerations

Dental problems--

--Some older folks have dental problems that make chewing foods difficult. If several persons in your program have such problems, try to include foods in meals that they can handle without too much difficulty.

Modified diets--

--Some programs provide modified (special or therapeutic) diets to participants whose doctors have prescribed such diets. If modified diets are offered, they should be planned by and prepared under the supervision of a qualified dietitian. If a dietitian is not on the staff of your program, you might be able to arrange with a hospital, nursing home, or home for the aged that has appropriate staff to prepare the modified

diets. Or you might be able to obtain consultant help from a local dietitian. (See pages 6-7 for suggestions on how to locate a dietitian.)

If modified diets are to be provided--

- Obtain written orders from the physician for the special diet.
- Limit the variety of diets offered.

If several types of modified diets are needed, try to use one diet for all participants. For example, food can be prepared without salt, making meals suitable for persons on a mild sodium restricted diet. Persons not on this diet can add salt at the table. Mild diabetics may be able to have the same menu as other participants if fresh or unsweetened fruit is offered in place of sweetened desserts.

- Check with the physicians prescribing diets before a general modified diet, such as the one described above, is used to see if they feel such a diet is suitable for their patients.

### Write the Menus Down

Write the menus down as you plan them. This way you are less likely to omit important kinds of foods from meals. It is a good idea to have a special form for writing menus and a special file or book where they can be kept. These written menus are the basis for your market list and for scheduling food preparation.

Steps in writing menus are given on the next page. The example makes use of Meal Pattern I (page 6) for planning a dinner menu. However, the same general procedure could be used in planning lunch (or supper) menus. The basic principle is to start with the main dish in a meal and plan the rest of the meal around it. The main dish for lunch or supper might be a hearty soup, stew, or salad or a sandwich or casserole. It usually includes meat or an alternate. Some people like to plan the main dish for all menus first, whether they are planning for one week or longer. They feel it is easier to plan for variety in meals this way.

Keep in mind the points about food selection mentioned earlier (pages 17 to 23). Also, check the written menus against the meal pattern to see if all the suggested foods are included.

After the menus have been used, add comments about acceptability of the food, quantities of food purchased, amount of food left over, number of people served, and so forth, and file the menus away. Such information is helpful if any menu items are used again or if the entire menu is reused, such as with cycle menus.

Steps in Writing a Menu

<u>Steps</u>	<u>Sample menu selections for dinner</u>	
	<u>Sample 1</u>	<u>Sample 2</u>
1. Choose a main dish	Baked chicken	Baked ocean perch filets
2. Select vegetables and fruits to go with the main dish	Mashed potatoes Broccoli	Parslied carrots Creamy coleslaw
3. Choose a bread	Bread (enriched)	Muffin (enriched)
4. Select a dessert	Angelfood cake	Vanilla pudding
5. Plan ways to include milk	Cream gravy Ice milk	Milk (to drink)
6. ..... other foods as needed to roundout meals, to add eye appeal, and to create interest	Butter or margarine Tomato wedge Coffee or tea	Butter or margarine Rice (enriched) Spanish sauce Currant jelly Coffee or tea



Menu 1

Baked chicken with cream gravy  
Mashed potatoes

Broccoli                      Tomato wedge

Bread  
Butter or margarine

Anglefood cake  
Ice milk \*

Coffee or tea

Menu 2

Baked ocean perch fillets with Spanish sauce  
Rice

Parslied carrots              Creamy cole slaw

Muffin  
Butter or margarine

Vanilla pudding, currant jelly  
Milk to drink

Coffee or tea

\* Substitute milk to drink for a home-delivered meal, if ice milk cannot be kept frozen during deliver.

## BUYING FOODS

A market list based on planned menus is a key to the orderly buying of foods. Suggested steps to follow in making out a list are:

1. Refer to written menus.
2. Decide on the size of serving you intend to use for each food.
3. Estimate the number of servings for each food you will need.

Include in the count food service and other personnel if they eat meals at the program. Allow for second servings if the policy of the program permits "seconds." Sometimes seconds are permitted for some foods but not for others.

4. Select recipes for those foods that will be prepared in the kitchen.
5. List the foods needed to prepare all meals for the time the order is to cover. Include all ingredients in the recipes.
6. Decide on the quality of product you want to buy.

Many foods are available in different grades--for example, meat, poultry, fish, eggs, canned fruits and vegetables. Generally, top-graded foods cost more. To save money, choose lower grade foods when they meet your needs.

7. Figure the amounts of foods you need.

- Take into account the serving sizes you plan to use and number of servings of each food you will need (items 2 and 3 above).
- Estimate the number of servings from a market unit of various foods.

For example, you can generally get four 1/2-cup servings of cooked carrots from a pound of fresh carrots bought without tops. If you want 100 1/2-cup servings, you would need to buy 25 pounds of the carrots. Food-purchasing guides are available that you may find useful. Check the references listed on page 42.

8. Check food supplies on hand to see if you already have some of the foods you will need.

If you plan to use food at hand for meals for which you are preparing the market order, be sure that it will be available for those meals in the quantity that you need. Some of the supply may be scheduled for use before then.

9. List the foods you want to buy and the amounts needed on separate market orders according to where you plan to buy them.

For example, if baked goods are purchased at a bakery rather than at a grocery store, prepare a separate market order for them.

10. Specify grade, size, quality, and other descriptive information for a food on the market order to help assure that you will get the product you want.

### Other Points to Consider

#### Where to buy

- Compare food prices and services offered by different suppliers.

You may want to contact both retail and wholesale suppliers. Choose suppliers that offer reasonable prices and other features that are important--a variety of foods, good-quality foods, credit (if desired), dependable delivery of foods.

- Check delivery schedules.

Choose stores with schedules that best suit your needs if delivery is required.

#### When to buy

- Establish a schedule for ordering and buying foods.

Ordering on a weekly basis for most foods may be practical for you. However, you may need to have delivery every day or two for some foods--milk and fresh produce, for example.

You may want to place larger orders for some foods--such as flour, sugar, shortening, canned goods--less frequently if you have adequate storage space for them.

#### How to buy

- Read the labels.

Studying labels will help you get your money's worth when you buy foods. Look for information on ingredients, grades, enrichment or fortification, quantity of food provided in terms of weight, measure, or numerical count. Not all this information will be found on every label.

- Compare prices.

Compare costs of a serving of food or some other specified amount such as an ounce, pound, or dozen. Tables and guides, such as those shown on pages 37 to 41, may be helpful in making cost comparisons.

Some suppliers have a unit pricing system that simplifies comparing costs of a food in various sized containers and of various grades and brands.

- Buy in quantity when the price is right and food can be stored and used without waste.

Food in large containers often costs less than the same amount bought in small containers. If your supplier does not have unit pricing, table 2 (pages 39 to 41) can be used to find the cost of a pound of food when purchased in different sized containers. Buy the size container with the lowest cost per ounce or pound if the size is practical.

Take advantage of sales and seasonal variation in prices.

If money is limited, do not tie up a lot of money in food supplies.

- Check the U.S. Department of Agriculture's plentiful food lists.

The Department of Agriculture lists each month foods that are in plentiful supply. These foods are often good buys. Some newspapers print the lists. Look in the food section. Sometimes grocery store ads contain the lists and sometimes the lists are displayed at the stores.

- Look for freshness in foods.

Appearance of some foods, like certain fresh fruits and vegetables, is an indication of freshness. Other foods, such as fresh milk and bread, may carry a date or code that indicates freshness. Ask your food supplier to help you learn how to use these dates or codes to be sure the foods you buy are fresh.

- Buy and use safe foods.

All canned food used should be commercially canned. Do not buy cans with bulging ends or that are rusted or show signs of food leakage.

Buy only pasteurized milk and milk products.

Buy inspected meat, poultry, and seafood when possible. Check with the supplier to be sure the food is inspected if you do not see an inspection stamp on it. Not all products carry a stamp even though they may have been inspected. For example, each retail cut of meat from an inspected carcass may not carry a stamp. The Federal meat

and poultry inspection stamp is circular; the seafood stamp is a shield. Some products may be inspected locally or by the State instead of undergoing Federal inspection. Products are generally inspected for wholesomeness and to see that they are processed under sanitary conditions.

- Visit stores regularly to keep up to date on new food products.
- Consolidate orders if it is to your advantage.

Placing large orders with a few suppliers instead of several small orders with a number of suppliers may be to your advantage. Credit and delivery service are more likely to be available from a supplier if the order is large.

Leaflets giving pointers on what to look for in buying several kinds of foods have been published by the U.S. Department of Agriculture and are available from the U.S. Government Printing Office. (See page 42.)

## STORING FOODS

Proper storage of foods helps retain food value and eating quality and also helps keep them safe to eat. Keep the following points in mind when storing foods.

### General points

- Check with State or local health department about regulations dealing with food storage, including temperature requirements.
- Check temperatures in the refrigerator and freezer regularly, using a thermometer, to see that recommended or required temperatures are maintained.
- Use food in storage in order of purchase--arranging foods in the storage area so the older foods are used first.
- Store nonfood items such as cleaning supplies and insecticides away from food.

### Refrigerator storage

- Types of food to refrigerate.

Refrigerate promptly readily perishable foods such as fresh, fluid milk, cream; fresh and cooked meat, poultry, fish; eggs; most fresh vegetables and fresh ripe fruits; opened canned foods.

- Temperatures to use.

Maintain the temperature in the refrigerator at the temperature specified in the health department regulations. If no temperatures are given, a good rule is to keep the temperature at about 40° F.

Use the following temperature ranges as guides if separate refrigeration is available for different types of foods:

Dairy products	38° - 45° F.
Vegetables and fruits	44° - 45° F.
Meat and poultry	33° - 36° F.

- Arrange foods in the refrigerator so that air can circulate around them.
- Place hot food in shallow pans for a short time to facilitate cooling.
- Cover prepared food to protect it from contamination and to prevent it from drying out.

#### Freezer storage

- Store frozen foods at 0° F., or below.
- Place frozen foods in the freezer as soon as they are received.

#### Other storage

- Store canned fruits and vegetables and other foods that do not need refrigeration or freezing in a cool, dry place that is well ventilated.
  - Group similar kinds of food together to make them easier to find.
  - Store dry bulk foods such as flour and sugar in glass, metal, or plastic containers with tightly fitting covers.
  - Store nonfat dry milk in a closed container if the package has been opened. Refrigerate reconstituted milk as you would fresh milk.
  - Store foods such as potatoes and onions on racks to keep them off the floor.

## PROTECTING FOOD FROM NUTRIENT LOSS

Providing for nutritious meals only begins with the selection of foods and their proper--and prompt--storage. Care is also needed in their preparation for eating to conserve the nutrients they contain. Here are some tips on how to save food value.

- Use a sharp blade when trimming, cutting, or shredding fresh vegetables or fruits. Vitamin losses occur when tissues are bruised.
- Keep leafy green vegetables refrigerated after cleaning and trimming until served. They keep their nutrients best if placed in a crisper or moistureproof bag that keeps moist air around them.
- Cover and refrigerate diced or grated vegetables and fruits immediately after preparation if they are not to be eaten right away. This will minimize loss of vitamins.
- Cook vegetables only until tender. If vegetables are boiled, use only as much water as is needed to give an acceptable product--and use a tight-fitting lid.
- Cook vegetables just before serving time, if possible. If serving time is long, cook small batches as needed to minimize holding time.

Holding foods at warm temperatures causes loss in food value. Cooking foods in small batches as needed--instead of cooking all the food that you need for a meal at one time--cuts down on the amount of time the food has to be kept hot.

- Boil or bake potatoes in the skins some of the time. Cooking potatoes in their skins helps conserve nutrients.
- Save the excess liquid on canned and cooked vegetables and use it in soups, gravies, or in other ways, rather than throwing the liquid away. Some of the nutrients originally in the vegetables end up in the cooking or canning liquid.
- Use meat drippings (remove fat if desired) in gravies or pour over the meat. Meat drippings contain some vitamins and other nutrients from the meat.
- Prepare cooked enriched rice, macaroni, spaghetti, and noodles without rinsing or using excessive amounts of water. Rinsing and using excess water wastes those nutrients that dissolve in water.

## KEEPING FOOD SAFE TO EAT

Foods can cause illness even though they were safe to eat when purchased or first prepared. Poor sanitation, insufficient cooking, and improper storage can allow bacteria in food to increase until the food becomes dangerous to eat. Some bacteria produce substances, called toxins, that cause illness when food is eaten. To help prevent illness of this type, anyone handling food should--

- Know and follow local and State health regulations concerned with food and food handlers.
- Be free from infectious disease and from infected cuts or other skin infections.
- Work with clean hands, hair, fingernails, and wear clean clothing.
- Wear a hairnet or cap or other effective hair restraint.
- Wash hands with soap and water--
  - Before working with food.
  - After going to the restroom.
  - After smoking or blowing the nose.
  - After touching raw meat, poultry, or eggs.
- Avoid using hands to mix foods when clean utensils or disposable plastic gloves can be used.
- Use clean utensils and equipment or plastic gloves to handle foods to be eaten without further cooking, such as ready-to-eat foods,

Do not use the same utensils, equipment, or gloves used in the preparation of other food because of the possibility of spreading contamination, if any exists.

- Keep hands away from mouth, nose, and hair.
- Cover coughs and sneezes with disposable tissues.
- Do not return spoons used to taste a food to the pot or bowl containing the food. Put them aside to be washed.

When preparing foods--

- Keep hot foods hot and cold foods cold.

Foods may not be safe to eat if held for more than 3 or 4 hours at temperatures between 45° F. and 140° F. The holding time includes all time during preparation, storage, and serving.



REMEMBER--Hot foods hot (above 140° F.) and cold foods cold (below 45° F.).

- Cool hot foods quickly.

Speed cooling of large amounts of food by refrigerating in a shallow container, if they are not to be served hot

- Take special precautions with certain foods.

--Refrigerate cream, custard, or meringue pies and food with custard fillings, including cakes, cream puffs, or eclairs. Do not allow them to stand at room temperature once they have cooled slightly.

Follow the same precautions with salads and sandwiches made with salad dressings containing eggs or milk products and little or no vinegar or other acid foods such as lemon juice. As a further precaution, use chilled ingredients in making salad and sandwich mixtures.

--Use only clean eggs with sound shells in any recipe in which eggs are not thoroughly cooked, such as in egg-milk drinks, scrambled eggs, omelets, uncooked salad dressings, meringues, or puddings cooked on top of the range.

Use dried or frozen eggs only in foods that are to be thoroughly cooked.

- Cook fresh pork thoroughly.

The recommended internal temperature for fresh pork loin is 170°F. Use a meat thermometer to check the temperature. Or make small cuts next to the bone and into the thicker part of the meat. If the juice is still pink, the pork is not done.

- Do not partially cook meat or poultry one day and complete the cooking the next day.
- Thaw frozen raw meat, poultry, or fish in the refrigerator or place the watertight package in cold, running water.

Frozen meat, poultry, and fish can be cooked without thawing, but additional cooking time is needed to be sure the center of the meat is properly cooked. Allow at least one and a half times as long to cook as required for unfrozen or thawed products of the same weight and shape.

- Thoroughly cook such foods as croquettes and fish cakes. Searing on the outside may leave bacteria in the center that can multiply rapidly.

- Follow directions on packages of commercially prepared or partially prepared foods. Heating the specified time assures that the food will be safe to eat.
- Thoroughly clean all dishes, utensils, and work surfaces with soap and water after each use.

Bacteria can be destroyed by rinsing utensils and work surfaces with chlorine laundry bleach in the proportion recommended on the package. Cutting boards, meat grinders, blenders, and can openers particularly need this protection.

- Wash fresh fruits and vegetables thoroughly to help remove pesticides.

#### Other points to consider

- If canned food shows any sign of spoilage--bulging can ends, leakage, spurting liquid, off-odor, or mold--DO NOT USE IT... DO NOT EVEN TASTE IT...DESTROY IT. DO NOT USE HOME-CANNED FOODS.
- Use dishwashing procedures approved by the local or State health department.
- Avoid touching rims of glasses or cups or eating or cutting surfaces of knives, forks, and spoons to be used by others.
- Keep insects under control. House flies and cockroaches can carry bacteria that cause food-borne illness.
- Do not store insecticides or cleaning supplies near food.

#### PACKAGING MEALS FOR HOME DELIVERY

Meals for the homebound must be packaged before delivery. The packaging is to prevent contamination and to maintain temperatures that will keep readily perishable foods safe to eat. A general rule is to keep cold foods below 45° F. and hot foods above 140°. Check regulations of local or State health department to see if they require different temperatures.

Meals are generally packaged individually and then a number of meals are packed together for delivery. Hot and cold foods are kept separate. A number of different packaging materials have been tried in various programs. Plastic containers and bags, styrofoam containers with covers, aluminum pans with covers, and paper wrappings and bags are examples of materials used to package cold foods. Heavy aluminum foil containers with covers, styrofoam containers with covers, paper plates with aluminum-foil covers, and pottery plates with covers are examples of materials used with hot foods. Divided plates have the advantage of keeping foods from running together and help to make the delivered meals more attractive. The packaged cold foods are kept cold and the packaged

hot foods are kept hot until time for delivery when they are placed into precooled or preheated containers that hold several meals.

Each program needs to try out different packaging materials for its own use for several reasons. Materials on the market that could be used for packaging change from time to time and improved products may become available. Requirements for different meal service programs vary. Requirements will vary, for example, with the extremes in outdoor temperatures and humidity.

In trying out different materials, food delivered last on the delivery routes should be checked with a thermometer to see if it is maintained at the desired temperature. Keeping delivery routes short makes supplying meals at the proper temperatures easier. Many programs try to keep delivery time to under an hour.

Some desirable characteristics of certain supplies and equipment for delivery of meals follow:

- Containers for food
  - Firm
  - Do not absorb liquid
  - Easy to cover
  - Easy to handle and to stack when filled with food
  - Deep enough to hold food so that liquids do not spill
  - Maintain temperature of food (or reheatable, if for hot food)
  - Disposable
  - Economical
  - Easy to store before use
- Carrying cases for packaged food
  - Durable and easily cleaned
  - Lightweight and easy to handle
  - Maintain desired temperature--45° F. and below for cold food; 140° and above for hot food. A supplementary source of heat or cold may be required to maintain proper temperature.
  - Simple and quick to open during delivery so that heat or cold is retained.
  - Appropriate size and shape for delivery vehicle

--Firm and secure so that containers of food do not tilt during delivery

Studies of packaging materials on the market are continuing in order to keep up with technical advances in their development.

Facilities are needed in the food preparation area that will keep served hot food hot and served cold food cold until packed into the delivery vehicle.

#### A GUIDE TO COMMON CAN SIZE

A guide, shown on page 37, can be used to help determine amounts of food to buy and to compare prices.

As an aid to purchasing--

- Decide on the serving size.
- Divide the serving size into the contents of a can of appropriate size to get the number of servings a can will provide.
- Divide the number of servings one can furnishes into the total number of servings wanted to get the total number of cans to buy.

As an aid to price comparison--

- Divide the number of servings a can provides, as determined above, into the price of the can to get the cost of a serving.
- Use the cost of a serving in making price comparisons.

#### COST OF A 3-OUNCE SERVING OF LEAN MEAT














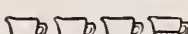

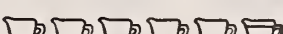

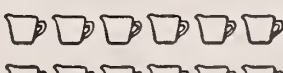
To use table 1 (see page 38), which shows the cost of a 3-ounce serving of cooked lean meat, locate the kind and cut of meat you plan to buy. Follow the line on which it appears to the column headed by the price most like the current price at your supplier. The figure at this point is the approximate cost of a 3-ounce serving of cooked lean.

As an example, the cost of a 3-ounce serving of lean from a chuck roast (bone in) priced at 75 cents a pound would be 33 cents; and from ground beef at 65 cents a pound, the cost would be 17 cents.

#### COST-WEIGHT TABLE

To use table 2 (see pages 39-41), the cost-weight table, find the net weight of the container in ounces in the left column of the table. Then, find the price of the container (the top row of figures). Run your finger down the column under the price of the food until you come to the figure opposite the number of ounces in the container. This is the cost per pound--or per pint--if the ounces are fluid ounces.

## A GUIDE TO COMMON CAN SIZES

6-oz.		 Approximately $\frac{3}{4}$ cup 6 fl. oz.	Used for frozen concentrated juices and individual servings of single strength juices.
8-oz.		 Approximately 1 cup 8 oz. ( $7\frac{3}{4}$ fl. oz.)	Used mainly in metropolitan areas for most fruits, vegetables and specialty items.
No. 1 (Picnic)		 Approximately $1\frac{1}{4}$ cups 10 $\frac{1}{2}$ oz. ( $9\frac{1}{2}$ fl. oz.)	Used for condensed soups, some fruits, vegetables, meat and fish products.
No. 300		 Approximately $1\frac{3}{4}$ cups 15 $\frac{1}{2}$ oz. ( $13\frac{1}{2}$ fl. oz.)	For specialty items, such as beans with pork, spaghetti, macaroni, chili con carne, date and nut bread—also a variety of fruits, including cranberry sauce and blueberries.
No. 303		 Approximately 2 cups 1 lb. (15 fl. oz.)	Used extensively for vegetables; plus fruits, such as sweet and sour cherries, fruit cocktail, apple sauce
No. 2		 Approximately $2\frac{1}{2}$ cups 1 lb. 4 oz. (1 pt. 2 fl. oz.)	Used for vegetables; many fruits and juices.
No. 2 $\frac{1}{2}$		 Approximately $3\frac{1}{2}$ cups 1 lb. 13 oz. (1 pt. 10 fl. oz.)	Used principally for fruits, such as peaches, pears, plums and fruit cocktail; plus vegetables, such as tomatoes, sauerkraut and pumpkin.
46-oz.		 Approximately $5\frac{3}{4}$ cups 46 oz. (1 qt. 14 fl. oz.)	Used almost exclusively for juices; also for whole chicken.
No. 10		 Approximately 12 cups 6 lbs. 9 oz. (3 qts.)	So-called "institutional" or "restaurant" size container, most fruits and vegetables are packed in it. It is not ordinarily available in retail stores.

Reprinted from "Purchase and Use of Canned Foods" courtesy of the  
American Can Company

TABLE 1.—Cost of a 3-ounce serving of cooked lean meat from selected kinds and cuts of meat at specified retail prices per pound

Kind and cut of meat	Price per pound of retail cuts (cents)																															
	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180			
<b>BEEF</b>																																
Cost of a 3-ounce serving (cents)																																
<b>Roasts:</b>	21	23	26	29	31	34	36	39	42	44	47	49	52	55	57	60	62	65	68	70	73	76	78	81	83	86	89	91	94			
Brisket, bone in.....	18	20	22	25	27	29	31	33	36	38	40	42	45	47	49	51	54	56	58	60	62	65	67	69	71	74	76	78	80			
Chuck, bone in.....	14	16	17	19	21	23	24	26	28	30	31	33	35	36	38	40	42	43	45	47	49	50	52	54	56	57	59	61	62			
Chuck, bone out.....	18	20	22	25	27	29	31	33	36	38	40	42	45	47	49	51	54	56	58	60	62	65	67	69	71	74	76	78	80			
Ribs-7th, bone in.....	13	15	17	18	20	22	23	25	27	28	30	32	33	35	37	38	40	42	43	45	47	48	50	52	54	55	57	59	60			
Round, bone in.....	12	14	16	17	19	20	22	23	25	27	28	30	31	33	34	36	38	39	41	42	44	45	47	48	50	52	53	55	56			
Round, bone out.....	17	20	22	24	26	28	31	33	35	37	39	41	44	46	48	50	52	55	57	59	61	63	66	68	70	72	74	76	79			
Rump, bone in.....	14	15	17	19	20	22	24	26	27	29	31	32	34	36	38	39	41	43	44	46	48	49	51	53	55	56	58	60	61			
Rump, bone out.....	18	20	22	25	27	29	31	33	36	38	40	42	45	47	49	51	54	56	58	60	62	65	67	69	71	74	76	78	80			
<b>Steaks:</b>	23	26	28	31	34	37	40	43	45	48	51	54	57	60	62	65	68	71	74	77	80	82	85	88	91	94	97	99	102			
Club, bone in.....	21	23	26	29	31	34	36	39	42	44	47	49	52	55	57	60	62	65	68	70	73	76	78	81	83	86	89	91	94			
Porterhouse, bone in.....	13	15	17	18	20	22	23	25	27	28	30	32	33	35	37	38	40	42	43	45	47	48	50	52	54	55	57	59	60			
Round, bone out.....	12	14	16	17	19	20	22	23	25	27	28	30	31	33	34	36	38	39	41	42	44	45	47	48	50	52	53	55	56			
Sirloin, bone in.....	17	19	21	23	26	28	30	32	34	36	38	40	43	45	47	49	51	53	55	57	60	62	64	66	68	70	72	74	77			
Sirloin, bone out.....	16	18	20	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	62	64	66	68	70			
T-bone, bone in.....	22	25	28	30	33	36	39	41	44	47	50	52	55	58	61	64	66	69	72	75	77	80	83	86	88	91	94	97	99			
T-bone, bone out.....	10	12	13	14	16	17	18	20	21	22	23	25	26	27	29	30	31	33	34	35	36	38	39	40	42	43	44	46	47			
Ground beef, lean.....	23	26	29	32	35	38	41	44	47	50	53	56	58	61	64	67	70	73	76	79	82	85	88	91	94	96	99	102	105			
Short ribs.....	20	23	25	28	30	33	36	38	41	43	46	48	51	53	56	58	61	63	66	69	71	74	76	79	81	84	86	89	91			
<b>PORK, FRESH</b>																																
<b>Roasts:</b>	20	23	25	28	30	33	36	38	41	43	46	48	51	53	56	58	61	63	66	69	71	74	76	79	81	84	86	89	91			
Loin, bone in.....	14	16	17	19	21	23	24	26	28	30	31	33	35	36	38	40	42	43	45	47	49	50	52	54	56	57	59	61	62			
Loin, bone out.....	21	24	27	29	32	35	37	40	43	45	48	51	53	56	59	62	64	67	70	72	75	78	80	83	86	88	91	94	96			
<b>Chops:</b>	18	20	22	25	27	29	31	33	36	38	40	42	45	47	49	51	54	56	58	60	62	65	67	69	71	74	76	78	80			
Loin.....	20	23	25	28	30	33	36	38	41	43	46	48	51	53	56	58	61	63	66	69	71	74	76	79	81	84	86	89	91			
Rib.....	14	16	18	20	22	23	25	27	29	31	32	34	36	38	40	42	43	45	47	49	51	52	54	56	58	60	61	63	65			
<b>PORK, CURED</b>	14	16	17	19	21	23	24	26	28	30	31	33	35	36	38	40	42	43	45	47	49	50	52	54	56	57	59	61	62			
<b>Roasts:</b>	10	12	13	14	16	17	18	20	21	22	23	25	26	27	29	30	31	33	34	35	36	38	39	40	42	43	44	46	47			
Butt, bone in.....	18	21	23	26	29	32	34	37	39	41	43	46	48	51	53	56	59	62	64	66	68	71	73	75	78	80	82	84	86			
Ham, bone in.....	14	16	18	20	22	23	25	27	28	30	32	34	35	37	39	41	42	44	46	48	49	51	53	55	57	58	60	62	64			
Ham, bone out.....	14	16	18	20	22	23	25	27	28	30	32	34	35	37	39	41	42	44	46	48	49	51	53	55	57	58	60	62	64			
Picnic, bone in.....	12	14	16	17	19	20	22	23	25	27	28	30	31	33	34	36	38	39	41	42	44	45	47	48	50	52	53	55	56			
Picnic, bone out.....	12	14	16	17	19	20	22	23	25	27	28	30	31	33	34	36	38	39	41	42	44	45	47	48	50	52	53	55	56			
Ham slices.....	17	19	21	23	25	27	29	31	33	35	38	40	42	44	46	48	50	52	54	56	58	60	62	65	67	69	71	73	75			
<b>LAMB</b>	18	21	23	25	27	30	32	34	37	39	41	43	46	48	50	53	55	57	59	62	64	66	68	71	73	75	78	80	82			
<b>Roasts:</b>	18	21	23	25	27	30	32	34	37	39	41	43	46	48	50	53	55	57	59	62	64	66	68	71	73	75	78	80	82			
Leg, bone in.....	22	25	28	30	33	36	39	41	44	47	50	52	55	58	61	64	66	69	72	75	77	80	83	86	88	91	94	97	99			
Shoulder, bone in.....	18	21	23	25	27	30	32	34	37	39	41	43	46	48	50	53	55	57	59	62	64	66	68	71	73	75	78	80	82			
<b>Chops:</b>	18	21	23	25	27	30	32	34	37	39	41	43	46	48	50	53	55	57	59	62	64	66	68	71	73	75	78	80	82			
Loin.....	22	25	28	30	33	36	39	41	44	47	50	52	55	58	61	64	66	69	72	75	77	80	83	86	88	91	94	97	99			
Rib.....	18	21	23	25	27	30	32	34	37	39	41	43	46	48	50	53	55	57	59	62	64	66	68	71	73	75	78	80	82			

Yield data from U.S. Dept. Agr., HERR No. 31, Proximate Composition of Beef . . ., and U.S. Dept. Agr., AH No. 284, Purchasing Guide for Group Feeding.

TABLE 2.—*COST-WEIGHT TABLE*  
 [Cost of a Pound of Food from Containers of Various Weights]

Net Weight of Container (ounces)	Price of Container (cents)															
	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	
	<i>Cost of food per pound (dollars)</i>															
1	1.60	1.92	2.24	2.56	2.88	3.20	3.52	3.84	4.16	4.48	4.80	5.12	5.44	5.76	6.08	
2	.80	.96	1.12	1.28	1.44	1.60	1.76	1.92	2.08	2.24	2.40	2.56	2.72	2.88	3.04	
3	.53	.64	.75	.85	.96	1.07	1.17	1.28	1.39	1.49	1.60	1.71	1.81	1.92	2.03	
4	.40	.48	.56	.64	.72	.80	.88	.96	1.04	1.12	1.20	1.28	1.36	1.44	1.52	
5	.32	.38	.45	.51	.58	.64	.70	.77	.83	.90	.96	1.02	1.09	1.15	1.22	
6	.27	.32	.37	.43	.48	.53	.59	.64	.69	.75	.80	.85	.91	.96	1.01	
7	.23	.27	.32	.37	.41	.46	.50	.55	.59	.64	.69	.73	.78	.82	.87	
8	.20	.24	.28	.32	.36	.40	.44	.48	.52	.56	.60	.64	.68	.72	.76	
9	.18	.21	.25	.28	.32	.36	.39	.43	.46	.50	.53	.57	.60	.64	.68	
10	.16	.19	.22	.26	.29	.32	.35	.38	.42	.45	.48	.51	.54	.58	.61	
11	.15	.17	.20	.23	.26	.29	.32	.35	.38	.41	.44	.47	.49	.52	.55	
12	.13	.16	.19	.21	.24	.27	.29	.32	.35	.37	.40	.43	.45	.48	.51	
13	.12	.15	.17	.20	.22	.25	.27	.30	.32	.34	.37	.39	.42	.44	.47	
14	.11	.14	.16	.18	.21	.23	.25	.27	.30	.32	.34	.37	.39	.41	.43	
15	.11	.13	.15	.17	.19	.21	.23	.26	.28	.30	.32	.34	.36	.38	.41	
16	.10	.12	.14	.16	.18	.20	.22	.24	.26	.28	.30	.32	.34	.36	.38	
17	.09	.11	.13	.15	.17	.19	.21	.23	.24	.26	.28	.30	.32	.34	.36	
18	.09	.11	.12	.14	.16	.18	.20	.21	.23	.25	.27	.28	.30	.32	.34	
19	.08	.10	.12	.13	.15	.17	.19	.20	.22	.24	.25	.27	.29	.30	.32	
20	.08	.10	.11	.13	.14	.16	.18	.19	.21	.22	.24	.26	.27	.29	.30	
21	.08	.09	.11	.12	.14	.15	.17	.18	.20	.21	.23	.24	.26	.27	.29	
22	.07	.09	.10	.12	.13	.15	.16	.17	.19	.20	.22	.23	.25	.26	.28	
23	.07	.08	.10	.11	.13	.14	.15	.17	.18	.19	.21	.22	.24	.25	.26	
24	.07	.08	.09	.11	.12	.13	.15	.16	.17	.19	.20	.21	.23	.24	.25	
25	.06	.08	.09	.10	.12	.13	.14	.15	.17	.18	.19	.20	.22	.23	.24	
26	.06	.07	.09	.10	.11	.12	.14	.15	.16	.17	.18	.20	.21	.22	.23	
27	.06	.07	.08	.09	.11	.12	.13	.14	.15	.17	.18	.19	.20	.21	.23	
28	.06	.07	.08	.09	.10	.11	.13	.14	.15	.16	.17	.18	.19	.21	.22	
29	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.17	.18	.19	.20	.21	
30	.05	.06	.07	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	
31	.05	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.17	.18	.19	.20	
32	.05	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	
33	.05	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.16	.17	.18	
34	.05	.06	.07	.08	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	
35	.05	.05	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.16	.17	
36	.04	.05	.06	.07	.08	.09	.10	.11	.12	.12	.13	.14	.15	.16	.17	
37	.04	.05	.06	.07	.08	.09	.10	.10	.11	.12	.13	.14	.15	.16	.16	
38	.04	.05	.06	.07	.08	.08	.09	.10	.11	.12	.13	.13	.14	.15	.16	
39	.04	.05	.06	.07	.07	.08	.09	.10	.11	.11	.12	.13	.14	.15	.16	
40	.04	.05	.06	.06	.07	.08	.09	.10	.10	.11	.12	.13	.14	.14	.15	
41	.04	.05	.05	.06	.07	.08	.09	.09	.10	.11	.12	.12	.13	.14	.15	
42	.04	.05	.05	.06	.07	.08	.08	.09	.10	.11	.11	.12	.13	.14	.14	
43	.04	.04	.05	.06	.07	.07	.08	.09	.10	.10	.11	.12	.13	.13	.14	
44	.04	.04	.05	.06	.07	.07	.08	.09	.09	.10	.11	.12	.12	.13	.14	
45	.04	.04	.05	.06	.06	.07	.08	.09	.09	.10	.11	.11	.12	.13	.14	
46	.03	.04	.05	.06	.06	.07	.08	.08	.09	.10	.10	.11	.12	.13	.13	
47	.03	.04	.05	.05	.06	.07	.07	.08	.09	.10	.10	.11	.12	.12	.13	
48	.03	.04	.05	.05	.06	.07	.07	.08	.09	.09	.10	.11	.11	.12	.13	

TABLE 2.—*COST-WEIGHT TABLE*—Continued  
 [Cost of a Pound of Food from Containers of Various Weights]

Net Weight of Container (ounces)	Price of Container (cents)															
	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70
	<i>Cost of food per pound (dollars)</i>															
1	6.40	6.72	7.04	7.36	7.68	8.00	8.32	8.64	8.96	9.28	9.60	9.92	10.24	10.56	10.88	11.20
2	3.20	3.36	3.52	3.68	3.84	4.00	4.16	4.32	4.48	4.64	4.80	4.96	5.12	5.28	5.44	5.60
3	2.13	2.24	2.35	2.45	2.56	2.67	2.77	2.88	2.99	3.09	3.20	3.31	3.41	3.52	3.63	3.73
4	1.60	1.68	1.76	1.84	1.92	2.00	2.08	2.16	2.24	2.32	2.40	2.48	2.56	2.64	2.72	2.80
5	1.28	1.34	1.41	1.47	1.54	1.60	1.66	1.73	1.79	1.86	1.92	1.98	2.05	2.11	2.18	2.24
6	1.07	1.12	1.17	1.23	1.28	1.33	1.39	1.44	1.49	1.55	1.60	1.65	1.71	1.76	1.81	1.87
7	.91	.96	1.01	1.05	1.10	1.14	1.19	1.23	1.28	1.33	1.37	1.42	1.46	1.51	1.55	1.60
8	.80	.84	.88	.92	.96	1.00	1.04	1.08	1.12	1.16	1.20	1.24	1.28	1.32	1.36	1.40
9	.71	.75	.78	.82	.85	.89	.92	.96	1.00	1.03	1.07	1.10	1.14	1.17	1.21	1.24
10	.64	.67	.70	.74	.77	.80	.83	.86	.90	.93	.96	.99	1.02	1.06	1.09	1.12
11	.58	.61	.64	.67	.70	.73	.76	.79	.81	.84	.87	.90	.93	.96	.99	1.02
12	.53	.56	.59	.61	.64	.67	.69	.72	.75	.77	.80	.83	.85	.88	.91	.93
13	.49	.52	.54	.57	.59	.62	.64	.66	.69	.71	.74	.76	.79	.81	.84	.86
14	.46	.48	.50	.53	.55	.57	.59	.62	.64	.66	.69	.71	.73	.75	.78	.80
15	.43	.45	.47	.49	.51	.53	.55	.58	.60	.62	.64	.66	.68	.70	.73	.75
16	.40	.42	.44	.46	.48	.50	.52	.54	.56	.58	.60	.62	.64	.66	.68	.70
17	.38	.40	.41	.43	.45	.47	.49	.51	.53	.55	.56	.58	.60	.62	.64	.66
18	.36	.37	.39	.41	.43	.44	.46	.48	.50	.52	.53	.55	.57	.59	.60	.62
19	.34	.35	.37	.39	.40	.42	.44	.45	.47	.49	.51	.52	.54	.56	.57	.59
20	.32	.34	.35	.37	.38	.40	.42	.43	.45	.46	.48	.50	.51	.53	.54	.56
21	.30	.32	.34	.35	.37	.38	.40	.41	.43	.44	.46	.47	.49	.50	.52	.53
22	.29	.31	.32	.33	.35	.36	.38	.39	.41	.42	.44	.45	.47	.48	.49	.51
23	.28	.29	.31	.32	.33	.35	.36	.38	.39	.40	.42	.43	.45	.46	.47	.49
24	.27	.28	.29	.31	.32	.33	.35	.36	.37	.39	.40	.41	.43	.44	.45	.47
25	.26	.27	.28	.29	.31	.32	.33	.35	.36	.37	.38	.40	.41	.42	.44	.45
26	.25	.26	.27	.28	.30	.31	.32	.33	.34	.36	.37	.38	.39	.41	.42	.43
27	.24	.25	.26	.27	.28	.30	.31	.32	.33	.34	.36	.37	.38	.39	.40	.41
28	.23	.24	.25	.26	.27	.29	.30	.31	.32	.33	.34	.35	.37	.38	.39	.40
29	.22	.23	.24	.25	.26	.28	.29	.30	.31	.32	.33	.34	.35	.36	.38	.39
30	.21	.22	.23	.25	.26	.27	.28	.29	.30	.31	.32	.33	.34	.35	.36	.37
31	.21	.22	.23	.24	.25	.26	.27	.28	.29	.30	.31	.32	.33	.34	.35	.36
32	.20	.21	.22	.23	.24	.25	.26	.27	.28	.29	.30	.31	.32	.33	.34	.35
33	.19	.20	.21	.22	.23	.24	.25	.26	.27	.28	.29	.30	.31	.32	.33	.34
34	.19	.20	.21	.22	.23	.24	.24	.25	.26	.27	.28	.29	.30	.31	.32	.33
35	.18	.19	.20	.21	.22	.23	.24	.25	.26	.27	.27	.28	.29	.30	.31	.32
36	.18	.19	.20	.20	.21	.22	.23	.24	.25	.26	.27	.28	.28	.29	.30	.31
37	.17	.18	.19	.20	.21	.22	.22	.23	.24	.25	.26	.27	.28	.29	.29	.30
38	.17	.18	.19	.19	.20	.21	.22	.23	.24	.24	.25	.26	.27	.28	.29	.29
39	.16	.17	.18	.19	.20	.21	.21	.22	.23	.24	.25	.25	.26	.27	.28	.29
40	.16	.17	.18	.18	.19	.20	.21	.22	.22	.23	.24	.25	.26	.26	.27	.28
41	.16	.16	.17	.18	.19	.20	.20	.21	.22	.23	.23	.24	.25	.26	.27	.27
42	.15	.16	.17	.18	.18	.19	.20	.21	.21	.22	.23	.24	.24	.25	.26	.27
43	.15	.16	.16	.17	.18	.19	.19	.20	.21	.22	.22	.23	.24	.25	.25	.26
44	.15	.15	.16	.17	.17	.18	.19	.20	.20	.21	.22	.23	.23	.24	.25	.25
45	.14	.15	.16	.16	.17	.18	.18	.19	.20	.21	.21	.22	.23	.23	.24	.25
46	.14	.15	.15	.16	.17	.17	.18	.19	.19	.20	.21	.22	.22	.23	.24	.24
47	.14	.14	.15	.16	.16	.17	.18	.18	.19	.20	.20	.21	.22	.22	.23	.24
48	.13	.14	.15	.15	.16	.17	.17	.18	.19	.19	.20	.21	.21	.22	.23	.23



TABLE 2.—*COST-WEIGHT TABLE*—Continued  
 [Cost of a Pound of Food from Containers of Various Weights]

Net Weight of Container (ounces)	Price of Container (cents)														
	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100
	<i>Cost of food per pound (dollars)</i>														
1	11.52	11.84	12.16	12.48	12.80	13.12	13.44	13.76	14.08	14.40	14.72	15.04	15.36	15.68	16.00
2	5.76	5.92	6.08	6.24	6.40	6.56	6.72	6.88	7.04	7.20	7.36	7.52	7.68	7.84	8.00
3	3.84	3.95	4.05	4.16	4.27	4.37	4.48	4.59	4.69	4.80	4.91	5.01	5.12	5.23	5.33
4	2.88	2.96	3.04	3.12	3.20	3.28	3.36	3.44	3.52	3.60	3.68	3.76	3.84	3.92	4.00
5	2.30	2.37	2.43	2.50	2.56	2.62	2.69	2.75	2.82	2.88	2.94	3.01	3.07	3.14	3.20
6	1.92	1.97	2.03	2.08	2.13	2.19	2.24	2.29	2.35	2.40	2.45	2.51	2.56	2.61	2.67
7	1.65	1.69	1.74	1.78	1.83	1.87	1.92	1.97	2.01	2.06	2.10	2.15	2.19	2.24	2.29
8	1.44	1.48	1.52	1.56	1.60	1.64	1.68	1.72	1.76	1.80	1.84	1.88	1.92	1.96	2.00
9	1.28	1.32	1.35	1.39	1.42	1.46	1.49	1.53	1.56	1.60	1.64	1.67	1.71	1.74	1.78
10	1.15	1.18	1.22	1.25	1.28	1.31	1.34	1.38	1.41	1.44	1.47	1.50	1.54	1.57	1.60
11	1.05	1.08	1.11	1.13	1.16	1.19	1.22	1.25	1.28	1.31	1.34	1.37	1.40	1.43	1.45
12	.96	.99	1.01	1.04	1.07	1.09	1.12	1.15	1.17	1.20	1.23	1.25	1.28	1.31	1.33
13	.89	.91	.94	.96	.98	1.01	1.03	1.06	1.08	1.11	1.13	1.16	1.18	1.21	1.23
14	.82	.85	.87	.89	.91	.94	.96	.98	1.01	1.03	1.05	1.07	1.10	1.12	1.14
15	.77	.79	.81	.83	.85	.87	.90	.92	.94	.96	.98	1.00	1.02	1.05	1.07
16	.72	.74	.76	.78	.80	.82	.84	.86	.88	.90	.92	.94	.96	.98	1.00
17	.68	.70	.72	.73	.75	.77	.79	.81	.83	.85	.87	.88	.90	.92	.94
18	.64	.66	.68	.69	.71	.73	.75	.76	.78	.80	.82	.84	.85	.87	.89
19	.61	.62	.64	.66	.67	.69	.71	.72	.74	.76	.77	.79	.81	.83	.84
20	.58	.59	.61	.62	.64	.66	.67	.69	.70	.72	.74	.75	.77	.78	.80
21	.55	.56	.58	.59	.61	.62	.64	.66	.67	.69	.70	.72	.73	.75	.76
22	.52	.54	.55	.57	.58	.60	.61	.63	.64	.65	.67	.68	.70	.71	.73
23	.50	.51	.53	.54	.56	.57	.58	.60	.61	.63	.64	.65	.67	.68	.70
24	.48	.49	.51	.52	.53	.55	.56	.57	.59	.60	.61	.63	.64	.65	.67
25	.46	.47	.49	.50	.51	.52	.54	.55	.56	.58	.59	.60	.61	.63	.64
26	.44	.46	.47	.48	.49	.50	.52	.53	.54	.55	.57	.58	.59	.60	.62
27	.43	.44	.45	.46	.47	.49	.50	.51	.52	.53	.55	.56	.57	.58	.59
28	.41	.42	.43	.45	.46	.47	.48	.49	.50	.51	.53	.54	.55	.56	.57
29	.40	.41	.42	.43	.44	.45	.46	.47	.49	.50	.51	.52	.53	.54	.55
30	.38	.39	.41	.42	.43	.44	.45	.46	.47	.48	.49	.50	.51	.52	.53
31	.37	.38	.39	.40	.41	.42	.43	.44	.45	.46	.47	.49	.50	.51	.52
32	.36	.37	.38	.39	.40	.41	.42	.43	.44	.45	.46	.47	.48	.49	.50
33	.35	.36	.37	.38	.39	.40	.41	.42	.43	.44	.45	.46	.47	.48	.48
34	.34	.35	.36	.37	.38	.39	.40	.40	.41	.42	.43	.44	.45	.46	.47
35	.33	.34	.35	.36	.37	.37	.38	.39	.40	.41	.42	.43	.44	.45	.46
36	.32	.33	.34	.35	.36	.36	.37	.38	.39	.40	.41	.42	.43	.44	.44
37	.31	.32	.33	.34	.35	.35	.36	.37	.38	.39	.40	.41	.42	.42	.43
38	.30	.31	.32	.33	.34	.35	.35	.36	.37	.38	.39	.40	.40	.41	.42
39	.30	.30	.31	.32	.33	.34	.34	.35	.36	.37	.38	.39	.39	.40	.41
40	.29	.30	.30	.31	.32	.33	.34	.34	.35	.36	.37	.38	.38	.39	.40
41	.28	.29	.30	.30	.31	.32	.33	.34	.34	.35	.36	.37	.37	.38	.39
42	.27	.28	.29	.30	.30	.31	.32	.33	.34	.34	.35	.36	.37	.37	.38
43	.27	.28	.28	.29	.30	.31	.31	.32	.33	.33	.34	.35	.36	.36	.37
44	.26	.27	.28	.28	.29	.30	.31	.31	.32	.33	.33	.34	.35	.36	.36
45	.26	.26	.27	.28	.28	.29	.30	.31	.31	.32	.33	.33	.34	.35	.36
46	.25	.26	.26	.27	.28	.29	.29	.30	.31	.31	.32	.33	.33	.34	.35
47	.25	.25	.26	.27	.27	.28	.29	.29	.30	.31	.31	.32	.33	.33	.34
48	.24	.25	.25	.26	.27	.27	.28	.29	.29	.30	.31	.31	.32	.33	.33

## REFERENCES

### Diet Therapy

Handbook of Diet Therapy. Turner, D.F., 260 pp., 1970. Available from the American Dietetic Association, 620 North Michigan Avenue, Chicago, Ill. 60611. \$6.50.

### Food Buying Guides

Family Food Buying: A Guide for Calculating Amounts to Buy and Comparing Costs. U.S. Dept. Agr. Home Economics Res. Rpt. No. 37, 60 pp., 1969. Available from U. S. Government Printing Office, Washington, D.C. 20402. 35¢.

Food Purchasing Guide for Group Feeding. U.S. Dept. Agr. Handb. No. 284, 54 pp., 1965. Available from U.S. Government Printing Office, Washington, D. C. 20402. 60¢.

How to Buy Leaflets. U.S. Dept. Agr. Home and Garden Bulletins. Available from U.S. Government Printing Office, Washington, D.C. 20402:

<u>Title</u>	<u>Home and Garden Series No.</u>	<u>Cost</u>
How to buy...		
instant nonfat dry milk	140	10¢
fresh fruits	141	15¢
fresh vegetables	143	15¢
eggs	144	10¢
beef steak	145	10¢
beef roasts	146	10¢
butter	148	5¢
poultry	157	10¢
meat for your freezer	166	20¢
canned and frozen vegetables	167	30¢
beans, peas, and lentils	177	25¢
canned and frozen fruits	191	30¢
cheese	193	20¢
lamb	195	15¢
How to use USDA grades in buying food	196	15¢

### Food Preparation and Recipes

Handbook of Food Preparation, 116 pp. Revised 1971. American Home Economics Association, 2010 Massachusetts Avenue, N.W., Washington, D.C. 20036. \$3.00.

Cooking for Small Groups. U.S. Dept. Agr. Home and Gard. Bul. No. 197, 22 pp., 1972. Available from U.S. Government Printing Office, Washington, D.C. 20402. 15¢. (Recipes for 25 with a table for adjusting recipes from 15 to 50.)

Recipes for Quantity Service. U.S. Dept. Agr. Home Econ. Res. Rpt. No. 5. Will be available from U.S. Government Printing Office, Washington, D.C. 20402. (Recipes for 100.)

### Food Safety; Sanitation

Keeping food safe to eat: A guide for homemakers. U.S. Dept. Agr. Home and Gard. Bul. No. 162, 12 pp. Sl. rev. 1971. Available from U.S. Government Printing Office, Washington, D.C. 20402. 10¢.

Food service sanitation manual. U.S. Public Health Serv. Bul. No. 934, 90 pp., 1962. Available from U.S. Government Printing Office, Washington, D.C. 20402. 70¢.

### Food Selection

Food for fitness...A daily food guide. U.S. Dept. Agr. Leaflet No. 424. Sl. rev. 1971. Available from U.S. Government Printing Office, Washington, D.C. 20402. 15¢.

Food guide for older folks. U.S. Dept. Agr. Home and Gard. Bul. No. 17, 19 pp. Revised 1972. Available from U.S. Government Printing Office, Washington, D.C. 20402. 20¢.

Food selection for good nutrition in group feeding. U.S. Dept. Agr. Home Econ. Res. Rpt. No. 35, 33 pp. Sl. rev. 1971. Available without cost from the Office of Information, U.S. Department of Agriculture, Washington, D. C. 20250.

### Food Service

A guide to nutrition and food service for nursing homes and homes for the aged. U.S. Dept. Health, Education, and Welfare Pub. No. (HSM) 71-6701, 111 pp. Revised 1971. Available from U.S. Government Printing Office, Washington, D. C. 20402, \$1.75.

### Nutrition

Nutrition: Food at work for you. U.S. Dept. Agr. Home and Gard. Bul. Separate No. 1, 24 pp. Revised 1971. Available from U.S. Government Printing Office, Washington, D.C. 20402. 20¢.

Facts about nutrition. U.S. Dept. Health, Education, and Welfare, Public Health Serv. Pub. No. 917, 25 pp. Revised 1968. Available from U.S. Government Printing Office, Washington, D.C. 20402. 35¢.

### Nutritive Value of Foods

Nutritive value of foods. U.S. Dept. Agr. Home and Gard. Bul. No. 72, 41 pp. Sl. rev. 1971. Available from U.S. Government Printing Office, Washington, D.C. 20402. 30¢.

Conserving the nutritive values in foods. U.S. Dept. Agr. Home and Gard. Bul. No. 90, 16 pp. Sl. rev. 1971. Available from U.S. Government Printing Office, Washington, D.C. 20402. 10¢.

Other

Your money's worth in foods. U.S. Dept. Agr. Home and Gard. Bul. No. 183, 25 pp. 1970. Available from U.S. Government Printing Office, Washington, D.C. 20402. 25¢.

Food for us all. The Yearbook of Agriculture, 1969. 360 pp. Available from U.S. Government Printing Office, Washington, D.C. 20402. \$3.50.

Standards for meat and poultry products ... a consumer reference list. U.S. Department of Agriculture. Available without cost from Information Division, APHIS, U.S. Department of Agriculture, Washington, D.C. 20250.

Home-delivered meals for the ill, handicapped, and elderly. 86 pp. Supplement to Journal of Public Health, May 1965. National Council on the Aging, 1828 L. Street, N.W., Washington, D.C. 20036. \$2.00

Meals on Wheels Organization Manual. Revised 1970. 56 pp. (Mimeo.). Meals on Wheels, Inc., 509 Park Avenue, Baltimore, Md. 21201 \$4.00.



