USDA Food Plans

Mark Lino
USDA Food Plans

Mark Lino, PhD
Center for Nutrition Policy and Promotion
U.S. Department of Agriculture
For over 100 years, USDA has prepared guides for selecting nutritious diets at home at different cost levels.

**USDA Food Plans**

- Thrifty
- Low-Cost
- Moderate-Cost
- Liberal
Thrifty Food Plan

- Provides a healthy, minimal-cost meal plan that shows how a nutritious diet can be achieved with limited resources
- Used as basis for SNAP (food stamp) allotments
- 1 in 7 people receive SNAP
Low-Cost and Moderate-Cost Food Plans

- Provide healthy meal plans at 2\textsuperscript{nd} and 3\textsuperscript{rd} quartiles of food spending
- 30\% and 63\% higher cost than the Thrifty
- Used by bankruptcy courts (1.5 million people), to set alimony and child support payments
Liberal Food Plan

• Provides a healthy meal plan at 4\textsuperscript{th} quartile of food spending

• Double the cost of the Thrifty

• Used by DoD to set Basic Allowance for Subsistence (food allowance) for 1.4 million service members
Dietary Standards of Food Plans

• 1997-2005 Dietary Reference Intakes (e.g. RDAs for vitamins)

• 2005 Dietary Guidelines for Americans (e.g. saturated fat and cholesterol recommendations)

• 2005 USDA Food Guidance System intakes (e.g. fruit and vegetable recommendations)
Food Plans Do Not Contain

- Food away from home
- Dietary supplements
- Alcohol
Food Plan Market Baskets

- Each plan has 15 market baskets (for 15 age-gender groups) specifying the type and quantity of foods (29 food groups) that people could consume at home to obtain a nutritious diet.

- All four plans represent nutritious diets at different cost levels.

- Foods in plans change, more expensive healthy foods.
<table>
<thead>
<tr>
<th>Age-Gender Groups</th>
<th>Age-Gender Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year old</td>
<td>19-50 year old female</td>
</tr>
<tr>
<td>2-3 year old</td>
<td>19-50 year old male</td>
</tr>
<tr>
<td>4-5 year old</td>
<td>51-70 year old female</td>
</tr>
<tr>
<td>6-8 year old</td>
<td>51-70 year old male</td>
</tr>
<tr>
<td>9-11 year old</td>
<td>71+ year old female</td>
</tr>
<tr>
<td>12-13 year old female</td>
<td>71+ year old male</td>
</tr>
<tr>
<td>12-13 year old male</td>
<td></td>
</tr>
<tr>
<td>14-18 year old female</td>
<td></td>
</tr>
<tr>
<td>14-18 year old male</td>
<td></td>
</tr>
</tbody>
</table>
Foods/Food Groups (examples)

- **Grains:** whole-grain breads, rice, and pasta; whole-grain cereals; non-whole-grain breads, cereal, rice, pasta, and snacks
- **Vegetables:** potato products; dark-green; orange; canned and dry beans
- **Fruits:** whole fruits; fruits juices
- **Milk Products:** whole milk and yogurt; lower fat and fat-free milk and yogurt; cheese
- **Meat and Beans:** red meat; poultry; fish; nuts and nut butters; eggs
- **Other Foods:** gravies and sauces; coffee and tea; soft drinks; sugars and candies; soups
Example: Thrifty Food Plan for Male, Age 19-50

• Weekly cost (Dec. 2010): $46.80

• Market Basket:
  • 2.8 lbs of whole-grain breads, rice, and pasta
  • 2.5 lbs of potatoes
  • 1.2 lbs of dark-green vegetables
  • 6.7 lbs of whole fruits
  • 10.8 lbs of lower fat and fat-free milk and yogurt
  • 2.6 lbs of poultry
  • .08 lbs of sugars and candies, etc.
Food Plan Cost Updates

• Each Plan updated monthly using Consumer Price Indexes

• Indexes for each food group

• Cost of Plans increasing at low rate in past year (<1.0%)
<table>
<thead>
<tr>
<th>Plan</th>
<th>Weekly Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thrifty:</td>
<td>$135.60</td>
</tr>
<tr>
<td>Low-Cost:</td>
<td>$176.60</td>
</tr>
<tr>
<td>Moderate-Cost:</td>
<td>$221.00</td>
</tr>
<tr>
<td>Liberal:</td>
<td>$268.50</td>
</tr>
</tbody>
</table>

* Husband/wife + two children
USDA Periodically Updates Food Plan Market Baskets

• To reflect latest dietary standards

• To reflect latest food consumption trends and food prices
Data Current Food Plans Based on

• 2001-02 National Health and Nutrition Examination Survey: contains food consumption and nutrient content of food information

• 2001-02 Food Prices Database: based on ACNielsen Homescan data
Model

**Inputs**
- Average Consumption of 58 Food Categories for 15 Age-Gender Groups
- Cost per 100 Grams of 58 Food Categories
- Nutrient Profile of 58 Food Categories per 100 Grams
- MyPyramid Profile of 58 Food Categories per 100 Grams

**Mathematical Optimization Process**

**Constraints**
- Dietary Standards for 15 Age-Gender Groups
- MyPyramid Recommendations for 15 Age-Gender Groups
- Food Plan Maximum Cost Allotment for 15 Age-Gender Groups

**Optimization Process Solution Output**

**Conversion Process**
(From 58 Food Categories to 29)

**Food Plan Market Baskets for the 15 Age-Gender Groups**
Food Plan Market Baskets Meet Dietary Recommendations for

- Vitamins A, C; calcium; iron; folate, etc.
- Total and saturated fat; cholesterol
- USDA Food Guidance System intakes (grain, vegetable, fruit, milk, and meat and bean intake)
But, Food Plan Market Baskets Do Not Meet Dietary Recommendations for

• Vitamin E and Potassium: market baskets meet at least 63% of recommendations; meeting recommendations would require major changes from current consumption

• Sodium: market basket limited to no more than current consumption; meeting recommendation would require major changes in food manufacturing practices
<table>
<thead>
<tr>
<th>Food Category</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains</td>
<td>+20%</td>
</tr>
<tr>
<td>Vegetables</td>
<td>+116%</td>
</tr>
<tr>
<td>Fruits</td>
<td>+157%</td>
</tr>
<tr>
<td>Milk products</td>
<td>+131%</td>
</tr>
<tr>
<td>Meat and beans</td>
<td>0%</td>
</tr>
<tr>
<td>Other foods (fats, oils, sweets)</td>
<td>-58%</td>
</tr>
</tbody>
</table>
May Search by

• Menu item (e.g. main dish, soup, etc.)
• Audience (e.g. Hispanic, older adults, etc.)
• Ingredients
• Cost (all low-cost recipes)
• Cooking time
Recipe Criteria

• Submitted by programs receiving USDA funding
• Reviewed by dietitians
• Compatible with Dietary Guidelines
• Use low-cost, readily available ingredients
• Easy directions
Future Plans

New Dietary Standards of Food Plans

• 1997-2010 Dietary Reference Intakes
• 2010 Dietary Guidelines for Americans
• 2010 USDA Food Guidance System intakes
Future Plans

• Update Food Plans with 2007-08 National Health and Nutrition Examination data and 2007-08 Food Prices data

• Cost targets of the Plans will not change
Future Plans

• Revise and add to Recipe Finder Database
For More Information

www.cnpp.usda.gov