



## USDA Food Plans: Eating Healthy for Less Money

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## The USDA Food Plans Can Guide Consumers to Eat Healthy for Less Money

- Thrifty
- Low-Cost
- Moderate-Cost
- Liberal



## Can a Nutritious Diet be Inexpensive?

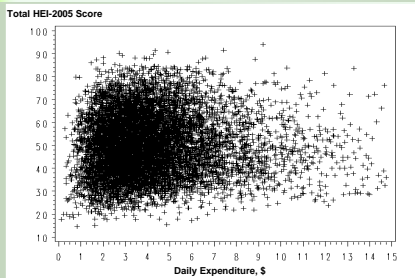
- A nutritious diet can be expensive. However, ...
- A nutritious diet can be inexpensive.

## What Is the Thrifty Food Plan?

- Minimal cost, nutritious diet.
- Plan has a set of market baskets specifying the type and quantity of foods that individuals could consume *at home* to obtain a nutritious diet.
- Basis for the Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program) allotments.



## HEI Score vs. Food Expenditure, Adults



Source: NHANES 2001-02, CNPP Food Prices Database 2001-02.

## What Is "Minimal" Cost?

Thrifty Food Plan Cost for Family of Four  
(couple 20-50, two children, 6-8 and 9-11)

- \$137 per week (Feb. 2009)
- 25% below what average family of four spends on food



## Dietary Standards of USDA Food Plans

- 1997-2004 Dietary Reference Intakes (recommendations for vit. A, vit. C, iron, fiber, etc.)
- 2005 Dietary Guidelines for Americans (recommendations for intakes of saturated fat, sodium, and cholesterol)
- 2005 Food Pyramid (MyPyramid, recommendations for food group and sub-group intake)



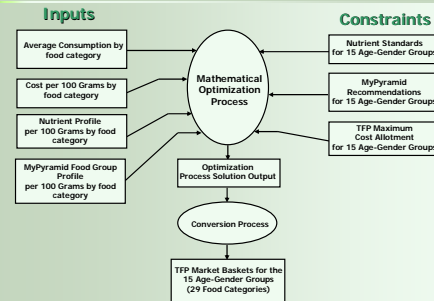
## Methodology

Optimization model that selects a nutritious diet:

- Meets dietary standards
- Falls within cost constraints
- Takes into account current consumption by food category
- Energy levels set to maintain median weight at a low active physical activity level

## HOW THE FOOD PLAN MARKET BASKETS WERE DEVELOPED

## Thrifty Food Plan Model



## Data Basis for USDA Food Plans (revised 2006, 2007)

- 2001-02 National Health and Nutrition Examination Survey
  - Food consumption
  - Nutrient content of food
- 2001-02 Food Prices Database (Based on Nielsen Homescan data)
  - Prices low-income people paid for foods (TFP)
- Consumer Price Index used for monthly cost updates

## THE INPUTS IN MORE DETAIL

## Step 1: Divide Foods into 58 Categories

### Examples:

- Breakfast cereal--whole grain, low calories
- Dark-green vegetables--no added fat
- Citrus fruits, melons, and berries
- Milk and milk-based foods--lower fat
- Poultry--low discretionary solid fat, low cost

## Food Plan Market Baskets

- Pounds per week of foods purchased in each of 29 food categories
- Represent the foods that would be purchased to prepare a diet that meets the model constraints

## Step 2: Calculate the Input per 100 g

For each of the 58 food categories, use average consumption weights to calculate the following:

- Cost
- Nutrient profile
- Number of Pyramid equivalents

## Is It Healthy?

- Met dietary recommendations for MyPyramid Food Groups and almost all nutrients
- The nutrients not met were potassium, vitamin E, and sodium, but amounts are better than current consumption

## RESULTS

## Vitamin E, Potassium

- Vitamin E:
  - For children the baskets met 100% of the RDA
  - The other market baskets met 63- 95% of the RDA
- Potassium: The 15 market baskets met 70-98% of the AI

## Sodium

- The TFP market baskets met the sodium recommendation for 5 groups:
  - Children: age 1, 2-3
  - Females: 12-13, 51-70, 71+
- Sodium levels in the other baskets ranged from 2,322 mg a day for females 14-18 to 3,629 mg a day for males 14-18

## Economics of Nutrition

- An **unhealthy** diet can be inexpensive, but it can also be expensive.
- A **healthy** diet can be expensive, but it can also be inexpensive.

Forthcoming CNPP research shows that the association between Healthy Eating Index Score and diet cost is not significant for men, and the association is very small for women.

## Thrifty Food Plan Market Baskets vs. Current Consumption

*Difference in lbs. of food per week*

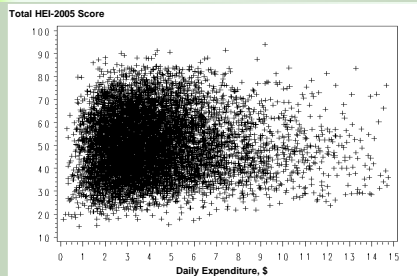
Grains	+16%
Vegetables	+137%
Fruits	+115%
Milk products	+125%
Meat and beans	0%
Other foods (fats, oils, sweets)	-83%

## Resources to Help Limited Resource Households Make Smart Food Choices

- SNAP-Ed Connection:
  - [www.snap.nal.usda.gov](http://www.snap.nal.usda.gov)
  - Received over 4 million hits in FY 2008
- State EFNEP programs
- SNAP nutrition education programs

## HEI Score vs. Food Expenditure, Adults

ACC3



Source: NHANES 2001-02, CNPP Food Prices Database 2001-02.

## Thank you!

Reports on the USDA Food Plans  
available at:

[www.cnpp.usda.gov](http://www.cnpp.usda.gov)

## Slide 21

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**ACC3** Janie- Is it possible to make the heading on the horizontal axis: "Daily Expenditure, \$"

verticle axis: "Total HEI-2005 Score"

If not, I can just talk about it.

Thanks.

Andi Carlson, 4/22/2009