Dietary Assessment of Major Trends in U.S. Food Consumption, 1970-2005

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The U.S. obesity rate among adults has more than doubled since 1970. The extent of obesity in this country has focused attention on what Americans have been eating. Americans are eating more from all of the major food groups—even fruits and vegetables. However, many are not meeting the Federal dietary recommendations. For Americans to meet these recommendations, they would need to substantially lower their intake of added fats, refined grains, and added sugars and sweeteners and increase their consumption of fruits, vegetables, whole grains, and low-fat milk and milk products.

What Is the Issue?
According to the National Center for Health Statistics, about two-thirds of U.S. adults in 2003-04 are either overweight or obese, compared with 47 percent in 1976-80. During the same period, the obesity rate among adult Americans has more than doubled, from 15 percent to 32 percent. This raises questions about what and how much Americans are consuming each year.

What Did the Study Find?
ERS’s food availability data suggest that the food available for consumption increased since 1970 for all major food groups. Although availability continued to rise in the last three decades, many Americans still fall short of Federal dietary recommendations for certain food groups. According to ERS’s loss-adjusted food availability data, Americans are consuming too many foods and beverages high in fats and carbohydrates and too few nutrient-dense foods and beverages, such as lower fat milk and milk products, fruits, and vegetables.

Grains. Total grain availability (wheat flour, rice, corn products, oat products, and barley products) increased 41 percent, from 137 pounds per person in 1970 to 192 pounds per person in 2005. For Americans on a 2,000-calorie-per-day diet, the 2005 Dietary Guidelines for Americans recommend consumption of 6 ounce-equivalents (oz-eq) of grains per day with whole grains accounting for at least half of this amount. Using ERS’s loss-adjusted food availability data, the researchers estimated that Americans on a 2,000-calorie-per-day diet consumed 8.1 oz-eq of grains per person per day in 2005 of which 7.2 oz-eq were refined grains and 0.9 oz-eq were whole grains. This suggests that Americans, on average, over-consume refined grains yet fall short on whole-grain intake.

Fruits and Vegetables. In 2005, the amount of fruits and vegetables available per person for consumption reached 687 pounds (fresh weight equivalent), 19 percent above the 1970 level. The Dietary Guidelines recommend that Americans eat 2 cups of fruits and 2.5 cups of vegetables per person per day as part of a 2,000-calorie-per-day diet. The loss-adjusted food availability data suggest that Americans on a 2,000-calorie-per-day diet consumed 0.9 cup of fruits and
1.7 cups of vegetables per person per day in 2005. Thus, Americans, on average, are eating less than the recommended amounts.

**Milk and Milk Products.** The availability of all milk and milk products increased 6 percent, from 564 pounds per person (milk equivalent) in 1970 to about 601 pounds per person in 2005. The 2005 *Dietary Guidelines* recommend that Americans consume 3 cups of milk and milk products per person per day as part of a 2,000-calorie-per-day diet. Using the loss-adjusted food availability data, the researchers estimated that Americans on a 2,000-calorie-per-day diet consumed 1.8 cups of milk and milk products per person per day in 2005, suggesting that Americans, on average, are consuming too little.

**Added Fats and Oils.** The Dietary Guidelines recommend that Americans keep total fat consumption between 20 and 35 percent of daily energy intake. In 2005, total added fats and oils available for consumption reached 86 pounds per person compared with 53 pounds per person in 1970. This 2005 estimate translates into 71.6 grams of added fats and oils per person per day after adjusting for plate waste and other losses. This estimate does not include dietary fats that occur naturally in foods, such as in dairy products and meats. Added fats and oils account for about 32 percent of total calories for a 2,000-calorie-per-day diet. In short, the findings suggest that Americans, on average, need to cut back on added fats and oils because, while the 32-percent figure is within the Guidelines’ range, it excludes only added fats and oils and excludes fats and oils naturally present in some foods.

**Meat, Eggs, and Nuts.** The total amount of meat, eggs, and nuts available for consumption grew from 225 pounds per person in 1970 to about 242 pounds per person in 2005. The Dietary Guidelines recommend 5.5 oz-eq from the meat and beans group per person per day as part of a 2,000-calorie-per-day diet. According to the loss-adjusted food availability data, Americans on a 2,000-calorie-per-day diet consumed an estimated 6.5 oz-eq of meat, poultry, fish, eggs, and nuts per person per day in 2005. This suggests that Americans, on average, eat more than the recommended amount from this food group.

**Added Sugars and Sweeteners.** In 2005, added sugars and sweeteners available for consumption totaled 142 pounds per person, up 19 percent since 1970. The *Dietary Guidelines* do not provide quantitative recommendations for added sugars but rather advise Americans to choose and prepare foods and beverages with little added sugars or caloric sweeteners. The Guidelines do, however, suggest that Americans on a 2,000-calorie-per-day diet, who divide their discretionary calorie allowance equally between solid fats and added sugars, limit consumption of added sugars and sweeteners to 8 teaspoons per day. According to the loss-adjusted food availability data, Americans consumed 30 teaspoons per person per day of added sugars and sweeteners in 2005. This finding suggests that Americans, on average, need to scale back on added sugars and sweeteners.

**How Was the Study Conducted?**

The analysis used the three data series that comprise ERS’s Food Availability (Per Capita) Data System to analyze the amount of food available for consumption and the dietary status of Americans. The first series, the core Food Availability data, is the only source of time series data on the food available for human consumption in the United States. This series measures supplies moving through production and trade channels for domestic consumption. It is not a direct measure of actual consumption but is useful to understand trends over time. The analysis used this series to examine the amount of food available for consumption per capita.

The second series, the Loss-Adjusted Food Availability data, adjusts the Food Availability data for spoilage and other losses and converts the data to daily per capita amounts for comparison with Federal dietary recommendations. This series is useful in approximating the amount of food Americans, on average, consume on a daily basis and in estimating whether Americans are meeting the Federal dietary recommendations for each food group and for oils.

The third series, the Nutrient Availability data, calculated by USDA’s Center for Nutrition Policy and Promotion, uses the Food Availability data to calculate the amounts per capita per day of food energy (calories) and 27 nutrients and dietary components (i.e., protein, carbohydrates, fats, vitamins, and minerals) in the Nation’s food supply. The analysis used the nutrient availability data to estimate the percent of calories contributed by fat and saturated fat in the average American’s diet.