Dates of Publication

Surveys are conducted quarterly:

March, June, September and December

Cost of Food at Home for a Week in Alaska

June 2002

Up to three stores in each of 22 communities were surveyed during June of 2002 for the cost of a specific set of food and non-food items. The 104 food items selected were taken, with some modification, from the USDA Low-cost Food Plan which is itself based on a nationwide survey of eating habits of Americans, conducted in 1977-78. In addition, the costs of such items as water, propane and electricity were collected. All costs were adjusted to reflect local sales tax where applicable.

The estimated prices of unavailable food items in various communities were calculated as the expected cost as judged from the prices of all available items relative to the price of those items in Anchorage. The percent of foods unavailable in each community are shown in the survey.

Weekly food consumption rates for a family of 4, children 6 - 11 years, form the basis of the expressed food costs. All other costs are ratios of that cost as calculated from the USDA Cost of Food

at Home survey issued June 2002. The cost for this family of 4 can be calculated from the table by summing the individual members. For smaller families such a sum would be too low and should be adjusted up by 20%, 10% or 5% for families of 1, 2 or 3 persons respectively. Similarly, the sum for larger families would be too high and downward adjustments of 5% and 10% are suggested for 6 and 7 or more member families. These adjustments reflect that some economies may be realized when preparing foods for larger families.

Rows 19 through 23 represent historical food costs. The Anchorage column is a comparison of present to previous Anchorage costs. Similarly the U.S. Average column represents changes in U.S. average prices. A one (1) appearing in the Anchorage column indicates that the current Anchorage cost is 1% higher now than at that date. Therefore, rising food costs are indicated by positive values. The remaining columns are each community's cost relative to Anchorage at that date. For instance, a cell containing a one (1) indicates a community that was experiencing a food cost 1% higher than Anchorage at that date.

Fats

Fats, or lipids as they are referred to in scientific works, are defined as biological substances that mix poorly with water but dissolve in certain organic solvents, historically ether (starting fluid). The distinction between fats and lipids is not universally adhered to, but 'lipids' are the general category, of which fats are a subcategory, including the visible animal fats (as on cuts of meat and butter) and vegetable oils (e.g. safflower oil). This practical definition of lipids includes substances of which we are

commonly aware, including cooking oil, lard, butter, chemically modified oils (shortening, margarine), body fat (triacylglycerides), and cholesterol. Substances that we hear less about but are nonetheless considered lipids include phospholipids (lecithin), sphingolipids and cerebrosides. Since ether dissolves many chemicals there are some surprising lipid types, such as the steroid hormones (like testosterone or estrogen).

The primary biological role of fats is as cell membranes, including the plasma membrane (the cell's boundary) and many types of sub-cellular membranes. Essentially all work performed inside the body is associated directly or indirectly with the activity of membranes. The composition of these membranes depends in part on diet, and as a consequence diet has direct and indirect influences on body function and health. Fats function as energy storage depots. In effect, all nutrient intake (see FCS, March 2002) beyond that required is converted and deposited with varying efficiencies to body fat. Food components (protein, lipids, carbohydrates) are converted and deposited as fat. Fats also have numerous critical roles in a wide variety of body functions including signaling, membrane attachment, physical support and many more.

Of course fats play an enormous role in foods and cooking, first and foremost through palatability. Through varying composition, crystal structure, melting properties and the ability to interact with proteins and in varying degrees with water, fats can be used to customize the flavor, texture, aroma as well as cooking and other functional properties of foods. For example, non-fat ice cream (ice milk) has a coarse icy texture when compared to a full fat ice cream (10-16% fat). Decomposition of fats is central to the deterioration of many foods.

Lipids have received mixed press in relation to human health issues primarily related to overindulgence. Per unit weight, fats have more than twice the energy content of proteins or carbohydrates, but unlike those compounds, dietary fats are efficiently converted and stored as human body fat. Dietary fats themselves act as solvents and therefore vehicles for many organic compounds including some toxins. Conversely, the fat-soluble vitamins (A, D, E, K) enter the body within dietary fat. Some fats are essential to human health and when absent can result in deficiency syndromes. Others, such as those that are found in fish oil, are extremely important to brain development in newborns.

The dietary requirement for fat is based on the total calories (kcal) taken per day, which we will take as 2000, by way of example. The food label, which now appears on virtually all food packages sold in the United States, includes useful information on the content of total and saturated fats. According to the USDA, the total fat intake should be no more than 30% of total calories, or 600 calories, which is about equal to 67 grams (2.4 ounces) of butter. Only one third of these calories should be saturated fat, the remainder can be unsaturated fats such as vegetable and marine oils (fish oils). Sixty-seven grams of fat is equivalent to 6 teaspoons of butter. However, butter is actually around 50/50 saturated/unsaturated fatty acids so only contributes half its weight towards the 10% saturated fat limit. It is typical for a given dietary fat (butter, lard, meat trimmings, vegetable oil) to be composed of many different types of fat. Trans-fatty acids, which are found in chemically modified fats (hydrogenated), should be avoided entirely due to enhanced risk of cardiovascular disease. Unfortunately, the use of margarine has historically been promoted by some as a 'heart

healthy' food. The use of hydrogenated oils is pandemic in the United States and diligence must be exercised to avoid their intake. For example, hydrogenated oils are found in shortening, margarines, many potato chips and other convenience foods. Hydrogenated ingredients will be listed on the packaging.

Sources:

Fennema, O.R. 1996. *Food Chemistry*. Marcel Dekker, Inc. New York.

Grundy, S.M. 1996. In *Present Knowledge in Nutrition*. ILSI Press, Washington, D.C.

http://www.nutrition.gov

Submitted By:

Bret R. Luick

Foods & Nutrition Specialist