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## **Cost of Food at Home for a Week in Alaska March 2003**

Up to three stores in each of 21 communities were surveyed during March of 2003 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 March 2003. 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.

## **Sweeteners**

According to the Food and Agriculture Organization, the population of the United States is expected to consume about 10.8 million tons of sugar in 2003. The largest fraction of this is corn sugar in the form of high fructose corn syrup, which is popular in the beverage and baking industries. According to the Food and Drug Administration, sugar consumption is generally regarded as safe, although it does cause tooth decay. The US Department of Agriculture's Dietary Guidelines suggest limiting intake of sugar because of the potential for tooth decay, dilution of the intake of essential nutrients (sugar provides calories but no vitamins, minerals, essential fatty acids or protein) and the potential for unwanted weight gain.

In fact, a wide variety of sugars are consumed in the US. They may be classified as either nutritive (provide calories) or non-nutritive (provide essentially no calories). Among the nutritive sugars are sucrose, glucose (dextrose), maltose, fructose (levulose, fruit sugar), lactose (milk sugar), invert sugar (dextrose and fructose from sucrose), and the poly-alcohols sorbitol, mannitol, maltitol, lactitol, erythritol, tagatose and xylitol. Among

the non-nutritive sugars are the very popular aspartame (Equal, NutraSweet), Neotame (approved July 2002), Sucralose, Acesulfame-K, saccharine, and Alitame (awaiting FDA approval). There are a good many more non-nutritive sweeteners approved for use overseas (e.g. Dulcin, Miraculin). Many other products are essentially sugar solutions; among them are honey, molasses, maple sugar and high fructose corn syrup. Chemically there are many more sugars, many of which are not sweet. Many sweeteners, nutritive and non-nutritive are not sugars at all. High fructose corn syrup (HFCS) is of particular interest because of the enormous amount consumed (9.3 million tons in the U.S. in 2002) and its elevated fructose content. Fructose is sweeter than table sugar but can cause weight gain through preferential formation of fat, a risk factor for many chronic diseases, and can contribute to insulin resistance.

Sugars differ in absorption rate. For instance, lactose is absorbed only after it is split into glucose and galactose by the gut enzyme lactase, which is not found in many adults. Consequently lactose is not absorbed by such persons (lactose intolerance). The same is true of sugar alcohols such as xylitol and maltitol, since they are only slowly absorbed and are thus laxatives for many people. Notwithstanding, sugar alcohols can be a good choice for managing blood sugar levels in diabetes since they have a lower caloric value and have less influence on blood sugar level.

Non-nutritive sugars vary widely in sweetness and 'mouthfeel'. Sweetness is a relative scale and is often expressed in comparison to table sugar. For instance, Sucralose is considered 600 times sweeter than sugar. However, sugar when used as a food ingredient provides bulk, body, texture and viscosity and as such greatly affects the way a food is perceived. Consequently, using 1/600th as much sweetener in a recipe will have profound effects on the outcome! Price is also a factor when considering

non-nutritive sweeteners.

When looking for sweeteners grown in Alaska the choices include birch sap, berries and beekeeping. The natural sweetness of birch sap and berries is arguable; certainly they are flavorsome, if seasonal.

International production and use of sugar is posted at <http://www.fao.org/giews/english/fo/fo0212/y8243e13.htm>

A discussion of sugar within the national dietary guidelines is posted at <http://www.health.gov/dietaryguidelines/dga2000/document/choose.htm#sugars>

A broad discussion of sugar, sweeteners and sweetness may be found at <http://food.oregonstate.edu/>

A limited discussion of sugar is available from the MEDLINEplus Encyclopedia of the National Library of Medicine and the National Institutes of Health <http://www.nlm.nih.gov/medlineplus/ency/article/002444.htm>

#### Other sources include:

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<http://ific.org/>

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