



# USDA'S NATIONAL FOOD AND NUTRIENT ANALYSIS PROGRAM STATUS AND DATA PRODUCTS



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### Abstract:

The U.S. Department of Agriculture's (USDA) National Nutrient Database provides food composition data for more than 6000 foods and over 100 nutritional components. These online, user-friendly databases supercede all printed versions of Handbook 8. The National Food and Nutrient Analysis Program (NFNAP) was developed to generate original analytical data to significantly improve the quality of data in the USDA National Nutrient Databank. Almost all national commercial databases, diet and health research, food labeling, and nutrition policies and programs use these data for their foundation. NFNAP, a collaboration with the National Institutes of Health, is designed to develop robust, nationally representative estimates of the nutrient content and, for a select subset of foods, estimates of variability of important foods in the food supply. Food samples were picked up at 12 or 24 retail outlets. Valid analytical methods were used to analyze the food samples and quality control monitoring was completed to assure accuracy. To date, composite samples of approximately 700 foods of the projected 1000 have been analyzed for over 100 food components. Supported by a self-weighting stratified sampling design, the NFNAP approach has been applied to other ancillary programs for the analysis of specific nutrients of recent interest (e.g., phytonutrients, fluoride, *trans* fatty acids), fast foods and population-specific ethnic foods (e.g., American Indians and Alaska Natives). These new data are used to support nationwide food consumption and health surveys, such as NHANES, and are being released through the USDA Nutrient Data Laboratory website: [www.nal.usda.gov/fnic/foodcomp](http://www.nal.usda.gov/fnic/foodcomp). Other applications for the database include a CD for Personal Computer (PC) and a new downloadable version for Personal Data Assistants (PDAs) which is available from our website.

### NFNAP Overview and Progress:

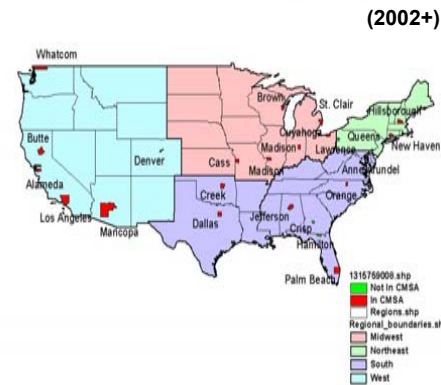
#### NFNAP Objectives

- Provide representative nutrient estimates for foods and selected ingredients
- Develop estimates of variability for important nutrients in highly consumed foods
- Add selected new components to the database
- Validate factors/algorithms for compiling data

#### Research activities comprise five linked components, or Specific Aims:

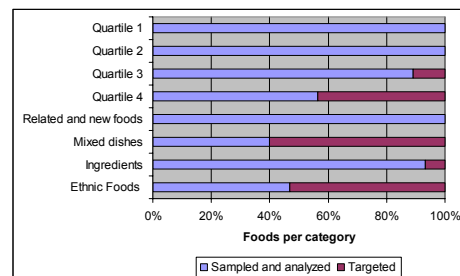
- 1) Identify Key Foods and Critical Nutrients for sampling and analysis plans;
- 2) Evaluate existing data for scientific quality;
- 3) Devise and implement a probability-based sampling survey of U.S. foods;
- 4) Analyze sampled foods under USDA-supervised laboratory contracts; and
- 5) Compile newly generated data to update the National Nutrient Data Bank.

Figure 1.  
Revised NFNAP County Sample  
(2002+)



New Census 2000 and projected 2001 data were applied to the development of a revised NFNAP sampling frame and reflect current US population distribution figures (Figure 1).

Graph 1. Foods Sampled and Analyzed by Category



Foods or sampling units were most extensively sampled and analyzed in the first quartile, and were largest contributors to nutrient intake. Somewhat fewer samples have been selected and analyzed for items in the 2<sup>nd</sup> quartile and even fewer in the 3<sup>rd</sup> quartile. The fewest number of samples are being selected and analyzed for items in the 4<sup>th</sup> quartile. A summary of the current status of foods sampled and analyzed is presented in Graph 1 above.

#### Recent Major Activities

- Fast foods from 3 major hamburger restaurants, a Mexican fast food chain and 4 pizza chains were sampled and analyzed
- Retail samples for the fluoride database were collected and are currently being analyzed
- Retail samples such as fish sticks, oatmeal, spices, toaster pastries, baked beans, French-fried potatoes, hams, and salmon were sampled and analyzed
- Progress continued on the American Indian/Alaska Native database with the collection and analysis of samples from the Shoshone-Bannock reservation, Alaskan Native villages, and agave samples from New Mexico
- 280 items were updated in SR 16 with individual carotenoids, alpha-tocopherol, vitamin K and total sugars and is currently available on our website and soon to be out on our CD and PDA versions

#### Data Support Products:

Products that support our data include our online database available on the internet, a CD for personal computer (PC) and a version for personal data assistants (PDA's).

**Online:** Nutrient data is available on our website: <http://nal.usda.gov/fnic/foodcomp/>. Access is free of charge and is updated with the latest version of Standard Reference.

**CD for PC:** Our database is available on a CD. This version would be useful if one does not have access to the internet. It is available through the government printing office website at <http://bookstore.gpo.gov/>.



**PDA version:** A PDA version of the nutrient database is downloadable from our website free of charge. This version is great for a portable version for diet professionals to check food composition data bedside for inpatients or in outpatient counseling sessions. The PDA version can also be used by consumers to access nutrient data at the grocery store or restaurants.

