

**United States
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**Design and Operation: The Continuing
Survey of Food Intakes by Individuals and
the Diet and Health Knowledge Survey,
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Katherine S. Tippet and Yasmin S. Cypel, editors

Abstract

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This publication is the official reference for information on the design and operation of the Continuing Survey of Food Intakes by Individuals (CSFII) and the Diet and Health Knowledge Survey (DHKS) 1994–96 which were conducted by the Agricultural Research Service, U.S. Department of Agriculture. This report describes the planning and development of the CSFII/DHKS 1994–96 and their design and operation. Included is information on the sample design, questionnaire development and data collection procedures, survey management and quality control, and food data processing. Survey response and sample weight information are also included. The appendices contain publicity materials, survey instruments, measuring guides, and followup materials.

The CSFII 1994–96, which measures the kinds and amounts of foods eaten by individuals, is USDA's 10th nationwide food consumption survey, the sixth to include the collection of individual intake data. It addresses the requirements of the National Nutrition Monitoring and Related Research Act of 1990 (Public Law 101–445) for continuous monitoring of the dietary and nutritional status of the U.S. population. The Diet and Health Knowledge Survey (DHKS) is a telephone followup to the CSFII and is designed to measure attitudes and knowledge about diet and health. The surveys are popularly referred to as the "What We Eat in America Survey."

Keywords: dietary surveys, food, food codes, food consumption, health knowledge, nutrients, nutrition attitudes, nutrition monitoring, survey methodology.

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Appendixes A, B, and C are contained in separate pdf files on disk 1 of this CD-ROM. See the directories and files listed below:

Appendix A:	Publicity materials (\dor9496\dorapp_a.pdf)
	Introductory letter
	Brochure
	Flyer
Appendix B:	Measuring guides (\dor9496\dorapp_b.pdf)
Appendix C:	Survey Instruments (\instru96\)
	Questionnaires (day1.pdf, day2.pdf, dhks.pdf, hhold.pdf, screener.pdf)
	Handcards (hdcards.pdf)

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Abbreviations

ARS	Agricultural Research Service
BOC	Bureau of the Census
CPS	Current Population Survey
CSFII	Continuing Survey of Food Intakes by Individuals
CSMR	Center for Survey Methods Research
CSREES	Cooperative State Research, Education, and Extension Service
CSUG	Continuing Survey Users' Group
CV	Coefficients of Variation
DHKS	Diet and Health Knowledge Survey
DSD	Demographic Surveys Division
DU	Dwelling Unit
EPA	Environmental Protection Agency
ERS	Economic Research Service
FASEB	Federation of American Societies for Experimental Biology
FCS	Food and Consumer Service
FDA	Food and Drug Administration
FIB	Food Instruction Booklet
FMS	Field Management System
FSIS	Food Safety and Inspection Service
FTC	Federal Trade Commission
FTS	Forms-Tracking System
HFCS	Household Food Consumption Survey
HNIS	Human Nutrition Information Service
IBNMRR	Interagency Board for Nutrition Monitoring and Related Research
ISU	Iowa State University
MSA	Metropolitan Statistical Areas
NALS	National Adult Literacy Survey
NASS	National Agricultural Statistics Service
NCHS	National Center for Health Statistics
NCI	National Cancer Institute
NDBSR	Nutrient Data Base for Standard Reference
NFCS	Nationwide Food Consumption Survey
NFS	Not Further Specified
NHANES	National Health and Nutrition Examination Survey
NHIS	National Health Interview Survey
NHLBI	National Heart, Lung and Blood Institute
NMFS	National Marine Fisheries Service
NNMRPP	National Nutrition Monitoring and Related Research Program
NPS	National Program Staff
OMB	Office of Management and Budget
PDS	Primary Data Set

PHS	Public Health Service
PSU	Primary Sampling Unit
SP	Sample Person
TIGER	Topologically Integrated Geographic Encoding and Referencing
USDA	United States Department of Agriculture
USDHHS	United States Department of Health and Human Services
USDOC	United States Department of Commerce

Glossary

Assistant. A knowledgeable person who assisted in the dietary intake interview for a sample person 6 to 11 years of age.

Day-1 and day-2 intake questionnaires. Questionnaires containing a 24-hour dietary recall and nonintake questions (for example, self-reported height), which were completed with each sample person. The dietary recall questions elicited a report of all foods and beverages the sample person had consumed the day before the interview (the 24 hours from midnight to midnight).

Diet and Health Knowledge Questionnaire. This questionnaire was completed with a selected sample person 20 years of age or older who had completed a day-1 intake without the assistance of a proxy. The DHKS was to be completed 2 to 3 weeks after the day-2 interview. It included information about the sample person's attitudes, knowledge, and behaviors concerning diet and health status. Topics that were addressed included the importance of dietary guidance, awareness of diet-health relationships, food labeling, and behavior related to food safety and fat intake.

Dwelling unit. House, apartment, room, or group of rooms occupied as separate living quarters, when the occupants do not live and eat with any other person in the structure and when there is direct access from the outside or through a common area or hall.

Eating occasion. Any report of eating or drinking (except plain drinking water) by a sample person.

Food Instruction Booklet. A booklet used by the interviewers in association with the dietary intake questionnaires to collect the descriptions and amounts of foods consumed by the respondents. The booklet contains a series of standardized probes specific to the various types of foods that respondents might report. It also contains recording conventions, standard abbreviations, an index for locating foods, and instructions for using the measurement aids when estimating food quantities.

Food intake. All beverages (except plain drinking water) and foods ingested. Did not include inedible parts of foods (such as bones, rinds, and seeds), uneaten portions of food, or vitamin or mineral supplements.

Food Intake Analysis System. A computer-assisted food coding and nutrient analysis system that utilizes CSFII food coding, recipe, and nutrient databases. The software is available from the University of Texas-Houston School of Public Health (see chapter 7).

Handcards. Cards that list response options. They were shown to respondents when asking sensitive questions, such as income, or questions with a long list of response categories.

Household. All persons who regularly share a dwelling unit that is defined as a house, an apartment, a room, or a group of rooms used as separate living quarters. Household membership is based on the place where a person usually lives or sleeps for 6 or more months per year and where the person is free to return at any time. A household includes persons temporarily absent, such as those who were in the hospital or traveling; students who live away from the dwelling unit in dormitories or sorority or fraternity housing while attending school, who are scheduled to return to the household at the end of the term, and who use the dwelling unit as their permanent address; domestic or other employees who usually live and sleep at the dwelling unit; boarders or roomers who usually live and sleep at the dwelling unit; and persons temporarily visiting the dwelling unit who have no usual place of residence elsewhere, such as a visitor who is house-hunting.

A household excludes former household members who live in institutions, nursing homes, convents, and so forth; persons working abroad; and members of the Armed Forces stationed elsewhere. Excludes students who live in an off-campus dwelling unit while attending school, persons who take their meals in the household but usually lodge or sleep elsewhere, domestic or other employees who live in an adjacent but separate dwelling unit, and persons temporarily visiting the household who have a usual place of residence elsewhere to which they are free to return at any time. Excludes noninstitutional group quarters of nine or more unrelated persons living and eating together.

Household member. See Household.

Household questionnaire. The questionnaire that collected socioeconomic data and was administered in person to a knowledgeable household respondent 18 years or older, not necessarily a sample person. It included questions on household income, food shopping practices, employment status, participation in government food programs (for example, Women, Infants, and Children; school lunch; food stamp), and food sufficiency.

Household respondent. A person who answered the household questionnaire, usually either the main meal planner/preparer or a person knowledgeable about household characteristics such as income; not necessarily a sample person.

Measuring guides. A set of tools used in conducting the intake interview to help respondents estimate the quantities of foods and beverages consumed. Included were a set of four measuring cups (1/4 cup, 1/3 cup, 1/2 cup, 1 cup), four measuring spoons (1/4 teaspoon, 1/2 teaspoon, 1 teaspoon, 1 tablespoon), eight 1/8-inch-thick sticks, a ruler, a laminated card containing illustrations of fish and chicken parts, a set of 6 concentric circles (1 inch to 6 inches in diameter), 2 perpendicular 6-inch rulers, and a 1-pint measuring cup.

Metropolitan Statistical Area. A geographic area consisting of a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with the nucleus; defined by the Office of Management and Budget for use in the presentation of statistics by the Federal Government.

Multiple-pass approach. A 24-hour recall procedure used in the dietary intake interview designed to help elicit more complete reporting of foods by respondents. The strategy consisted of three sets of questions that were asked in different forms. The first set of questions began by asking the respondents to provide a list of foods consumed during the previous day. The second set involved the collection of detailed food descriptions, and the third set contained a check for completeness of what had been reported.

Nonrespondent. A sample person who did not complete an interview.

Nutrient intake. Nutrient content of all foods and beverages ingested (except plain water with nothing in it). Excludes vitamin and mineral supplements.

Proxy. A knowledgeable adult who completed the dietary intake interview for children under 6 years of age and other sample persons unable to report for themselves due to physical or mental limitations or illness. Proxy interviews were not substituted for in-person interviews with adult sample persons who were difficult for the interviewer to reach or who were nonrespondents.

Region. An area of the United States as defined by the U.S. Department of Commerce for the 1990 census population. The four census regions and their states are as follows:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont;

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin;

South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia; and

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

Respondent. A household member who was selected to participate in the individual intake component of the survey **and** who provided at least 1 day of dietary intake data.

Sample person. A household member selected to participate in the individual intake component of the survey. Sample persons who provided at least 1 day of dietary intake were considered respondents (see Respondent).

Screener questionnaire. A questionnaire that was administered to identify eligible sample persons in the sample households.

Screening respondent. A household member 18 years of age or older who answered the screening questionnaire.

Survey Net. The computer-assisted food coding and nutrient analysis system developed by ARS and used for processing data from the CSFII 1994–96.

24-hour dietary recall. A recall of beverages (excludes plain drinking water) and foods ingested during the day preceding the interview (the 24 hours from midnight to midnight).