National Health and Nutrition Examination Survey 2003-2004

Documentation, Codebook, and Frequencies

Exam Component: Dietary Interview - Individuals Foods Data (Second Day)

Survey Years:
2003 to 2004

SAS Export File:
DR2IFF_C.XPT

September 2006

NHANES 2003–2004 Data Documentation

Exam Component: **Dietary Interview - Individual Foods Files (DR1IFF_C & DR2IFF_C)**

Years of Coverage: 2003–2004 **First Published:** September 2006 **Last Revised:** NA

Component Description

The objective of the dietary interview component is to obtain detailed dietary intake information from NHANES participants. The dietary intake data are used to estimate the types and amounts of foods and beverages consumed during the 24-hour period prior to the interview (midnight to midnight), and to estimate intakes of energy, nutrients, and other food components from those foods and beverages. Following the dietary recall, participants are asked questions on water consumption during the previous 24 hours, salt use, whether the person's intake on the previous day was usual or unusual, and whether the respondent is on any kind of diet. Selected population subgroups are asked questions on frequency of fish and shellfish consumed during the past 30 days.

The dietary interview component, called **What We Eat in America (WWEIA)**, is conducted as a partnership between the U.S. Department of Agriculture (USDA) and the U.S. Department of Health and Human Services (DHHS). Under this partnership, DHHS' National Center for Health Statistics is responsible for the sample design and data collection and USDA's Food Surveys Research Group (FSRG) is responsible for the dietary data collection methodology, maintenance of the databases used to code and process the data, and data review and processing.

What's New with the 2003-2004 WWEIA Release: A number of additions and changes have occurred since the release of the WWEIA 2001-2002 data. The table below summarizes these changes. One of the most important changes is the release of two days of intake data for each participant. The first day (Day 1) is collected in the Mobile Examination Center (MEC) and the second day (Day 2) is collected by telephone 3 to 10 days later. Most MEC participants (87 percent) have 2 days of complete and reliable intakes. The release of 2 days of data will permit the estimation of usual (long-run average) nutrient intakes in order to assess diets in the U.S. The Institute of Medicine recommends that assessment of the diets of population groups in relation to Dietary Reference Intakes be based on usual intake distributions of nutrients (1). A minimum of two nonconsecutive days of dietary intake data for at least a

subsample of the individuals is necessary for a more accurate estimation of the usual intake of nutrients.

Table 1. Changes between WWEIA 2001-2002 and WWEIA 2003-2004

Item	WWEIA 2001-2002	WWEIA 2003-2004
Number of days of intake data released	1 day	2 days
Sample weights to use with intake data	MEC weights*	Dietary intake weights
Nutrients included	Food energy and 60 nutrients/food components	Food energy and 62 nutrients/food components. Added vitamin E and added vitamin B_{12} included.
Food source (Where food obtained)	Collected only in 2002; not publicly released.	Collected and released.
Combination food types	Values for 14 combination types	Values for 15 combination types; added "chips with additions".
Eating occasion names	18 values	20 values; 3 existing values modified and 2 new values.
Special diet variables	Collected only in 2002; not publicly released.	Collected and released.

*Dietary intake weights for 2001-2002 will be made available in a subsequent release.

Dietary Interview Data Files: Four data files were produced from the information collected in the dietary interview: two Total Nutrient Intake files and two Individual Foods files. Each file includes one day of intake data. The number "1" or "2" in the file name identifies the day (and mode) of the interview: 1 = first day (MEC), 2 = second day (phone). File names are the following:

File	Day 1	Day 2
Individual Foods File	DR1IFF_C	DR2IFF_C
Total Nutrient Intakes File	DR1TOT_C	DR2TOT_C

The nutrient amounts in these files reflect only nutrients obtained

from foods and beverages, including sweetened water beverages. They do not include nutrients obtained from dietary supplements, medications, or plain drinking water.

Total Nutrient Intakes Files (DR1TOT_C and DR2TOT_C): Contain, for each participant, daily total energy and nutrient intakes from foods and beverages; the daily amount of water consumed; whether the amount of food consumed was usual, much more than usual, or much less than usual. The Day 1 file also includes information on salt use in cooking and at the table; whether the participant is currently on any kind of diet to lose weight or for another health-related reason and, if so, the type of diet; and for subsets of participants, information on frequency of fish and shellfish consumption.

Individual Foods Files (DR1IFF_C and DR2IFF_C): Contain detailed information about the types and amounts of individual foods reported by each participant, as well as amounts of nutrients from each food. The names for both Day 1 and Day 2 variables are listed in Table 2.

Two supporting files are also included with the Individual Foods Files: the Food Code Description file (DRXFCD_C) and the Modification Code Description file (DRXMCD_C). The DRXFCD_C file includes abbreviated descriptions (up to 60 characters) and complete descriptions (up to 200 characters) associated with each USDA food code identified in the Individual Foods Files. The DRXMCD_C file includes descriptions (up to 200 characters) associated with each modification code identified in the Individual Foods Files. Modification codes represent adjustments to predefined recipe ingredients that reflect more closely the food as described by the respondent. **Appendix A** provides SAS code examples that may be used to link the food code or the modification code description to the Individual Foods File.

This document (NHANES 2003-2004 Data Documentation for Individual Foods Files) provides additional details important to understanding the content of the Individual Foods Files (DR1IFF_C and DR2IFF_C). The Individual Foods Files include, for each interview day, one record for each food consumed by a survey participant. Each food record is sequentially numbered and contains the information listed below.

- Number of days of complete intake
- Day of week of intake
- Time of eating occasion when the food was eaten
- Eating occasion name
- Food, identified by a USDA food code
- Amount of food eaten, in grams
- Whether the food was eaten in combination with other foods, such as in a sandwich
- Whether the food was eaten at home or not
- Where the food was obtained
- Amounts of energy and 62 nutrients/foods components (listed in Table 3) from each food, as calculated using USDA's Food and Nutrient Database for Dietary Studies, 2.0 (FNDDS 2.0)
- Whether nutrients were calculated directly from the FNDDS 2.0 or modified by adjusting recipe ingredients

Complete food descriptions (up to 200 characters) for each USDA food code in this file may be found in the food descriptions component of the FNDDS. The FNDDS is a database of foods, their nutrient values, and weights for typical food portions used to process What We Eat in America data. The underlying nutrient values for FNDDS 2.0 were based on values in the USDA National Nutrient Database for Standard Reference, Release 18, produced by USDA's Nutrient Data Lab (2). FNDDS values are updated for every 2-year WWEIA, NHANES release cycle. FNDDS 2.0 corresponds with WWEIA 2003-2004. It is available for free download from the USDA Agricultural Research Service, Food Surveys Research Group's (FSRG) website (3).

Eligible Sample

All NHANES participants are eligible for the dietary interview component. However, only children 1-5 years and women 16-49 years of age are eligible for the frequency of fish and shellfish

consumption questions following the 24-hour recall and thus, their responses are collected.

Protocol and Procedure

The examination protocol and data collection methods are fully documented in the NHANES Dietary Interviewers Procedures Manuals (4, 5).

Proxy interviews were conducted for survey participants less than six years of age. Assisted interviews were conducted with survey participants 6 to 11 years of age. Dietary interviews were conducted in English and Spanish. Translators were used to conduct interviews in other languages.

The in-person interview was conducted in a private room in the NHANES mobile examination center (MEC). A set of measuring guides (various glasses, bowls, mugs, household spoons, measuring cups and spoons, a ruler, thickness sticks, bean bags, and circles) was available in the MEC dietary interview room for the participant to use for reporting amounts of foods. Upon completion of the in-person interview, participants were given measuring cups, spoons, a ruler, and a food model booklet, which contained two-dimensional drawings of the various measuring guides available in the MEC, to use for reporting food amounts during the telephone interview. Telephone dietary interviews were collected 3 to 10 days following the MEC dietary interview but not on the same day of the week as the MEC interview. Any participant who did not have a telephone was given a toll-free number to call so that the recall could be conducted.

What We Eat in America data were collected using USDA's dietary data collection instrument, the Automated Multiple Pass Method (AMPM) (6). The AMPM was designed to provide an efficient and accurate means of collecting intakes for large-scale national surveys. The AMPM is a fully computerized recall method that uses a 5-step interview outlined below:

1. **Quick List.** Participant recalls all foods and beverages consumed the day before the interview (midnight to midnight).

2. **Forgotten Foods.** Participant is probed for foods forgotten during the Quick List step.

3. **Time and Occasion.** Time and eating occasion are collected

for each food.

4. **Detail Cycle.** For each food, a detailed description, amount eaten and additions to the food are collected. Eating occasions and times between eating occasions are reviewed to elicit forgotten foods.

5. **Final Probe.** Additional foods not remembered earlier are collected.

The AMPM includes an extensive compilation of standardized food-specific questions and possible response options. Routing of questions is based on previous responses. The AMPM is updated yearly to reflect the changing food supply and to address research needs from the data user community. Additional information about the AMPM is provided in Raper et al. (7).

The accuracy of the AMPM is currently being assessed in the USDA AMPM Validation Study using biomarker data. The data collection phase of the study, which includes 525 participants, has been completed. The extent of misreporting of energy and protein intakes will be determined by comparing estimated energy intake with total energy expenditure, and estimated protein intake with urinary nitrogen excretion. Total energy expenditure has been measured by the doubly-labeled water method. Preliminary findings show that the use of the AMPM resulted in a mean energy intake for the first cohort of 100 subjects that was within 2 percent of their total energy expenditure, as estimated by the doubly-labeled water technique, and suggest acceptable accuracy of reported intakes (8, 9).

For the procedures relevant to this component, please go to **Survey Operations Manual, Consent Documents, Brochures** at: http://www.cdc.gov/nchs/about/major/nhanes/nhanes2003-2004/current_nhanes_03_04.htm

Quality Assurance & Quality Control

All dietary interviewers were required to complete an intensive one-week training course and to conduct supervised practice interviews before working independently in the field. Retraining sessions were conducted periodically and annually to reinforce the proper protocols and technique.

Interviewers were monitored throughout the data collection period.

Monitoring consisted of the following:

- Reviews of data transmittal sheets were used to verify receipt of data files.
- Reviews of audiotaped interviews or in-person observations were conducted for approximately 5% of each interviewer's work.
- Interviews were checked for completeness of the recalls, missing information, inconsistent reports, and unclear notes. Written notification and feedback were provided to the interviewers.

Data Processing and Editing

Interview data files were sent electronically from the field and were imported into Survey Net, a computer-assisted food coding and data management system developed by USDA (7).

USDA's Food and Nutrient Database for Dietary Studies, 2.0 (FNDDS 2.0), was used for processing the 2003-2004 intakes. The FNDDS includes comprehensive information that can be used to code individual foods and portion sizes reported by participants and also includes nutrient values for calculating nutrient intakes. The underlying nutrient values for FNDDS 2.0 were based on values in the USDA National Nutrient Database for Standard Reference, release 18, produced by USDA's Nutrient Data Lab (2). The FNDDS may be used in research projects using the NHANES 2003-2004 dietary intake data and also in other food intake studies. Additional information about the FNDDS and related tools is available on the Food Survey Research Group website (3, 7).

Coders were required to pass a certification test after the initial training. They were routinely monitored to ensure quality and completeness of their work. Approximately 10 percent of the coder's work was double-coded and adjudicated, if necessary.

After intake data were coded, various types of reviews were conducted to ensure the quality of the data. An overview of quality assurance procedures conducted during the data processing stage is available in Anand and Raper (10). Examples of reviews include the following:

- Overall acceptability of each recall. This review determined if the recall met minimum criteria. A recall was considered unacceptable if it failed to meet the following minimum criteria:

  1. The first 4 steps of the 5-step AMPM are completed. Failure to meet this criterion occurs infrequently and is due to the participant stopping the interview before completion of the fourth step. This step collects the details (description and amount consumed) for each reported food.

  2. Foods consumed for each reported meal must be identified.

- Interviewers' and coders' questions and comments are reviewed to ensure that they have been accounted for in coding.

- Decisions are made about how to code new or unusual foods or food quantities reported by participants.

  Foods or portions that could not be matched to items in the database are resolved by FSRG scientists. New food items and new portion sizes are added as needed to the FNDDS. Information about new foods and package sizes are collected using internet resources, direct contact with manufacturers, or food labels. Unusual food mixtures are coded using multiple food codes to represent the mixture, linking those foods with a combination food number, and specifying the type of food mixture (such as a salad or soup).

- Specific data integrity checks for reasonableness, consistency, and logic.

  Many quality control features are built into the data collection instrument, the AMPM software, including automated routing based on the participant's previous answers and extensive checks which prevent illogical responses. Nevertheless, over 50 unique checks are conducted across all dietary data. Examples are meals reported at unusual times (e.g., school lunch at 12:30 a.m.), foods not usually consumed by certain age groups (e.g., baby foods consumed by respondents over 2 years of age), and extremely large quantities of foods.

- Intakes with extreme levels for individual nutrients.

  Nutrient intakes are reviewed separately for various age and sex groups. Unusual values are examined and corrected when necessary.

During data processing, the following edits were made to ensure the logical consistency and analytic usefulness of the data:

- Adjusted sodium values for certain foods.

  Sodium values for home-prepared foods are based on the sodium values of recipe ingredients in the FNDDS. In some cases, the amount of salt in recipes was reduced or eliminated if the participant answered dietary interview questions about salt use in cooking or preparing foods with the response "occasionally", "rarely" or “never," respectively.

- Nutrient values for some food mixtures modified.

  During the food coding process, predefined recipes for some food mixtures are modified to match more closely the food as described by the respondent. Nutrients are modified by substituting ingredients in a predefined recipe for the mixture. An example of a modified recipe is an egg fried in butter instead of margarine. Each modification is assigned a unique 6-digit identification number. Recipe modification numbers appear in the variable DR1MC in the DR1IFF_C file and in the variable DR2MC in the DR2IFF_C file. Descriptions for each modification are provided in a separate file called DRXMCD.

Analytic Notes

Each Individual Foods File is comprised of food records. For most survey participants, there are multiple records in each file. These files can be linked with other NHANES files by the respondent sequence number (SEQN).

Variable names: For data collected on both Day 1 and Day 2, variable names are differentiated by having the number “1” or “2” in the third position of the variable name to identify the collection day. For example, the USDA food code variable, which identifies the food reported by the participant, is named DR1IFDCD in the Day 1 file and DR2IFDCD in the Day 2 file. Table 2 lists the Day 1 and Day 2

variable names.

Names for the following variables are the same for both days:

Day 1 and Day 2 variable name	Label
SEQN	Respondent sequence number
WTDRD1	Dietary day one sample weight
WTDR2D	Dietary two-day sample weight
DRABF	Breast-fed infant (either day)
DRDINT	Number of days of intake

Number of Intake Days Variable: Because two days of data are included in the 2003-2004 release, a variable has been added to indicate the number of days of intake available for each participant. The variable name is DRDINT.

Dietary Recall Status Code: A status code (DR1DRSTZ or DR2DRSTZ) is used in the file to indicate the quality and completeness of a survey participant's response to the dietary recall section. Although there are four possible values, only codes 1 and 4 appear in the Individual Foods File.

1 = Reliable and met the minimum criteria

All records for individuals with a code 1 identify a food, the quantity in grams of food consumed and nutrient amounts provided by the food.

2 = Not reliable or did not meet the minimum criteria

No data on individual food consumption are provided for these cases. These individuals have no records in the Individual Foods Files.

4 = Reported consuming breast milk

For infants and children who consumed human milk, there is a record in the Individual Foods Files for each report of human milk. However, because amounts of human milk intake are not quantified, these records contain missing values for the amount consumed and for

the amounts of energy and nutrients from human milk. Records for any other foods and beverages consumed by breast-fed infants and children are included in the Individual Foods Files along with their amounts and nutrient information. Because of the missing nutrient information for human milk, no total nutrient intakes (contained in the Total Nutrient Intakes Files) were computed for participants with a code 4.

A variable that identifies breast-fed children, DRABF, is included with the 2003-2004 release. This variable has a code of 1 if a child consumed breast milk in either intake day. Also, records that contain human milk have a missing value (blank) in the eaten at home variable field (DR1_040Z).

5 = Not done

This code is assigned when the dietary recall section of the interview did not take place due to various reasons (such as arrived late/left early, refusal, illness, emergency, or equipment failure). These individuals have no records in the Individual Foods Files.

Participants Reported Fasting: Three participants reported fasting during one of their intake collection days. By definition, no individual food consumption is reported for fasting respondents. Therefore, no records were included in the Individual Foods File for these individuals for the specific fasting day. Their dietary recall status variable for the fasting day is coded as “1” (complete and reliable) in the Total Nutrients File, and the total number of foods and all total nutrient intake variables are coded as “0”. Values are present for other variables collected after the dietary recall, such as water consumption.

Food Source: The source of each food (where it was obtained, e.g., from a store, fast food restaurant, cafeteria) is included with the 2003-2004 release. The variable names are DR1FS and DR2FS. Food source information was also collected in 2002, but was not publicly released because of confidentiality issues concerning single-year data. The values of this variable are:

1 = Store	12 = Community food program – other
2 = Restaurant with waiter/waitress	13 = Community program no additional information
3 = Restaurant fast food/pizza	14 = Vending machine
4 = Bar/tavern/lounge	15 = Common coffee pot or snack tray
5 = Restaurant no additional information	16 = From someone else/gift
6 = Cafeteria not at school	17 = Mail order purchase
7 = Cafeteria at school	18 = Residential dining facility
8 = Child care center	19 = Grown or caught by you or someone you know
9 = Family/adult day care center	20 = Fish caught by you or someone you know
10 = Soup kitchen/shelter/food pantry	24 = Sport, recreation, or entertainment facility
11 = Meals on Wheels	25 = Street vendor, vending truck

Eating Occasion: Three existing values for the name of eating occasion variable (DR1_030Z and DR2_030Z) were modified and four new values were added. The values of the eating occasion variables and their labels for 2003-2004 are shown below:

1 = Breakfast	11 = Almuerzo (breakfast)
2 = Lunch	12 = Comida (lunch)
3 = Dinner (*formerly labeled dinner/ supper*)	13 = Merienda (snack)
4 = Supper (*new in 2003-2004*)	14 = Cena (dinner)
5 = Brunch	15 = Entre comida (snack) (*formerly labeled entre comida/bebida/ tentempie*)
6 = Snack (*formerly labeled snack/ beverage*)	16 = Botana (snack)
7 = Drink (*new in 2003-2004*)	17 = Bocadillo (snack)
8 = Infant feeding	18 = Tentempie (snack) (*new in 2003-2004*)
9 = Extended consumption	19 = Bebida (drink) (*new in 2003-2004*)
10 = Desayuno (breakfast)	91 = Other

Combination Foods: Foods that are eaten in combination with other foods, such as cereal with milk, are identified by a combination food type (DR1CCMTX) and a combination food number (DR1CCMNM). For 2003-2004, a combination food type for chips

eaten with other foods has been added; its combination food type number is 14. The values for this variable are the following:

0 = Non-combination food	8 = Ice cream/frozen yogurt w/ additions
1 = Beverage w/ additions	9 = Dried beans and vegetable w/ additions
2 = Cereal w/ additions	10 = Fruit w/ additions
3 = Bread/baked prod w/ additions	11 = Tortilla products
4 = Salad	12 = Meat, poultry, fish
5 = Sandwiches	13 = Lunchables
6 = Soup	14 = Chips w/ additions *(new in 2003-2004)*
7 = Frozen meals	15 = Other mixtures

Sample weights for dietary intake data: The NHANES participants were selected on the basis of a national probability design. In order to increase the number of participants for specific demographic groups, a multi-stage, unequal probability of selection design was implemented. The NHANES oversamples blacks, Mexican Americans, low income whites, adolescents 12-19 years, and persons 60 years and older. Sample weights are constructed that encompass the unequal probabilities of selection, as well as adjustments for non-participation by selected sample persons. In order to produce national, representative estimates, the appropriate sample weights must be used.

For the 2003-2004 NHANES, there were 12,761 persons selected; of these 9,643 were considered respondents to the MEC examination and data collection. However, only 9,043 of the MEC respondents provided complete dietary intakes for Day 1. Furthermore, of those providing the Day 1 data, only 8,354 provided complete dietary intakes for Day 2.

Most analyses of NHANES data use data collected in the MEC and the variable WTMEC2YR should be used for the sample weights. However, for the dietary data, different sample weights are recommended for analysis. Although attempts are made to schedule MEC exams uniformly throughout the week, proportionally more exams occur on weekend days than on weekdays. Because food intake can vary by day of week, use of the MEC weights would disproportionately represent intakes on weekends.

A set of weights WTDRD1 is provided that should be used when an analysis uses the Day 1 dietary recall data (either alone or when Day 1 nutrient data are used in conjunction with MEC data). The set of weights WTDRD1 is applicable to the 9,043 respondents with Day 1 data. Day 1 weights were constructed by taking the MEC sample weights (WTMEC2YR) and further adjusting for (a) the additional non-response and (b) the differential allocation by day of the week for the dietary intake data collection. These Day 1 weights are more variable than the MEC weights, and the sample size is smaller, so estimated standard errors using Day 1 data and Day 1 weights are larger than standard errors for similar estimates based on MEC weights.

When analysis is based on both days of dietary intake, only the 8,354 sample persons have valid data. The NHANES protocol requires an attempt to collect the second day of dietary data at least 3 days after the first day, but the actual number of days between the two days is variable. A set of adjusted weights, WTDR2D, is to be used only when analysis uses both Day 1 and Day 2 dietary data. This two-day weight was constructed for the 8,354 respondents by taking the Day 1 weights (WTDRD1) and further adjusting for (a) the additional non-response for the second recall and (b) for the proportion of weekend-weekday combinations of Day 1 and Day 2 recalls.

Note that all sample weights are person-level weights and each set of weights should add to the same population control total as the MEC weights (WTMEC2YR). In addition, the MEC weights (WTMEC2YR) are appropriate for use in the analysis of the fish and shellfish consumption data (i.e., variables DRD340, DRD350A-K, DRD350AQ-JQ DRD360, DRD370A-V, and DRD370AQ-UQ) located in the Day 1 Total Nutrient Intake File (DR1TOT_C), if no other dietary data are included in the analysis. Additional explanation of sample weights and appropriate uses are included in the **NHANES Analytic Guidelines**. Please also refer to the Analytic Guidelines for further details on other analytic issues at http://www.cdc.gov/nchs/about/major/nhanes/nhanes2003-2004/analytical_guidelines.htm.

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Table 2. DR1IFF_C and DR2IFF_C Variables by Position

Day 1 Name	Day 2 Name	Variable Label
SEQN	SEQN	Respondent sequence number
DR1ILINE	DR2ILINE	Food/individual component number
WTDRD1	WTDRD1	Dietary day one sample weight
WTDR2D	WTDR2D	Dietary two-day sample weight
DR1DRSTZ	DR2DRSTZ	Dietary recall status
DR1EXMER	DR2EXMER	Interviewer ID code
DRABF	DRABF	Breast-fed infant (either day)
DRDINT	DRDINT	Number of days of intake
DR1DAY	DR2DAY	Intake day of week
DR1LANG	DR2LANG	Language SP/proxy used mostly
DR1CCMNM	DR2CCMNM	Combination food number
DR1CCMTX	DR2CCMTX	Combination food type
DR1_020	DR2_020	Time of eating occasion (HH:MM)
DR1_030Z	DR2_030Z	Name of eating occasion
DR1FS	DR2FS	Source of food
DR1_040Z	DR2_040Z	Was this food eaten at home?
DR1IFDCD	DR2IFDCD	USDA food code
DR1MC	DR2MC	Modification code
DR1IGRMS	DR2IGRMS	Grams
DR1IKCAL	DR2IKCAL	Energy (kcal)
DR1IPROT	DR2IPROT	Protein (gm)
DR1ICARB	DR2ICARB	Carbohydrate (gm)
DR1ISUGR	DR2ISUGR	Total sugars (gm)
DR1IFIBE	DR2IFIBE	Dietary fiber (gm)
DR1ITFAT	DR2ITFAT	Total fat (gm)

Day 1 Name	Day 2 Name	Variable Label
DR1ISFAT	DR2ISFAT	Total saturated fatty acids (gm)
DR1IMFAT	DR2IMFAT	Total monounsaturated fatty acids (gm)
DR1IPFAT	DR2IPFAT	Total polyunsaturated fatty acids (gm)
DR1ICHOL	DR2ICHOL	Cholesterol (mg)
DR1IATOC	DR2IATOC	Vitamin E as alpha-tocopherol (mg)
DR1IATOA	DR2IATOA	Added alpha-tocopherol (Vitamin E) (mg)
DR1IRET	DR2IRET	Retinol (mcg)
DR1IVARA	DR2IVARA	Vitamin A, RAE (mcg)
DR1IACAR	DR2IACAR	Alpha-carotene (mcg)
DR1IBCAR	DR2IBCAR	Beta-carotene (mcg)
DR1ICRYP	DR2ICRYP	Beta-cryptoxanthin (mcg)
DR1ILYCO	DR2ILYCO	Lycopene (mcg)
DR1ILZ	DR2ILZ	Lutein + zeaxanthin (mcg)
DR1IVB1	DR2IVB1	Thiamin (vitamin B1) (mg)
DR1IVB2	DR2IVB2	Riboflavin (vitamin B2) (mg)
DR1INIAC	DR2INIAC	Niacin (mg)
DR1IVB6	DR2IVB6	Vitamin B6 (mg)
DR1IFOLA	DR2IFOLA	Total folate (mcg)
DR1IFA	DR2IFA	Folic acid (mcg)
DR1IFF	DR2IFF	Food folate (mcg)
DR1IFDFE	DR2IFDFE	Folate, DFE (mcg)
DR1IVB12	DR2IVB12	Vitamin B12 (mcg)
DR1IB12A	DR2IB12A	Added vitamin B12 (mcg)
DR1IVC	DR2IVC	Vitamin C (mg)
DR1IVK	DR2IVK	Vitamin K (mcg)
DR1ICALC	DR2ICALC	Calcium (mg)
DR1IPHOS	DR2IPHOS	Phosphorus (mg)

Day 1 Name	Day 2 Name	Variable Label
DR1IMAGN	DR2IMAGN	Magnesium (mg)
DR1IIRON	DR2IIRON	Iron (mg)
DR1IZINC	DR2IZINC	Zinc (mg)
DR1ICOPP	DR2ICOPP	Copper (mg)
DR1ISODI	DR2ISODI	Sodium (mg)
DR1IPOTA	DR2IPOTA	Potassium (mg)
DR1ISELE	DR2ISELE	Selenium (mcg)
DR1ICAFF	DR2ICAFF	Caffeine (mg)
DR1ITHEO	DR2ITHEO	Theobromine (mg)
DR1IALCO	DR2IALCO	Alcohol (gm)
DR1IMOIS	DR2IMOIS	Moisture (gm)
DR1IS040	DR2IS040	SFA 4:0 (Butanoic) (gm)
DR1IS060	DR2IS060	SFA 6:0 (Hexanoic) (gm)
DR1IS080	DR2IS080	SFA 8:0 (Octanoic) (gm)
DR1IS100	DR2IS100	SFA 10:0 (Decanoic) (gm)
DR1IS120	DR2IS120	SFA 12:0 (Dodecanoic) (gm)
DR1IS140	DR2IS140	SFA 14:0 (Tetradecanoic) (gm)
DR1IS160	DR2IS160	SFA 16:0 (Hexadecanoic) (gm)
DR1IS180	DR2IS180	SFA 18:0 (Octadecanoic) (gm)
DR1IM161	DR2IM161	MFA 16:1 (Hexadecenoic) (gm)
DR1IM181	DR2IM181	MFA 18:1 (Octadecenoic) (gm)
DR1IM201	DR2IM201	MFA 20:1 (Eicosenoic) (gm)
DR1IM221	DR2IM221	MFA 22:1 (Docosenoic) (gm)
DR1IP182	DR2IP182	PFA 18:2 (Octadecadienoic) (gm)
DR1IP183	DR2IP183	PFA 18:3 (Octadecatrienoic) (gm)
DR1IP184	DR2IP184	PFA 18:4 (Octadecatetraenoic) (gm)
DR1IP204	DR2IP204	PFA 20:4 (Eicosatetraenoic) (gm)

Day 1 Name	Day 2 Name	Variable Label
DR1IP205	DR2IP205	PFA 20:5 (Eicosapentaenoic) (gm)
DR1IP225	DR2IP225	PFA 22:5 (Docosapentaenoic) (gm)
DR1IP226	DR2IP226	PFA 22:6 (Docosahexaenoic) (gm)

Table 3. List of Nutrients/Food Components (Unit)

Food energy (kcal)	Vitamin A as retinol activity equivalents (µg)
Protein (g)	Retinol (µg)
Carbohydrate (g)	Carotenoids:
Fat, total (g)	Carotene, alpha (µg)
Alcohol (g)	Carotene, beta (µg)
	Cryptoxanthin, beta (µg)
Sugars, total (g)	Lycopene (µg)
Dietary fiber, total (g)	Lutein + zeaxanthin (µg)
Water (g)	Vitamin E as alpha-tocopherol (mg)
	Added vitamin E as alpha-tocopherol (mg)
Saturated fatty acids, total (g)	Vitamin K as phylloquinone (µg)
Monounsaturated fatty acids, total (g)	Vitamin C (mg)
Polyunsaturated fatty acids, total (g)	Thiamin (mg)
Cholesterol (mg)	Riboflavin (mg)
	Niacin (mg)
Individual fatty acids:	Vitamin B-6 (mg)
4:0 (g)	Folate, total (µg)
6:0 (g)	Folate as dietary folate equivalents (µg)
8:0 (g)	Folic acid (µg)
10:0 (g)	Food folate (µg)
12:0 (g)	Vitamin B-12 (µg)
14:0 (g)	Added vitamin B-12 (µg)
16:0 (g)	
18:0 (g)	Calcium (mg)
16:1 (g)	Iron (mg)
18:1 (g)	Magnesium (mg)
20:1 (g)	Phosphorus (mg)
22:1 (g)	Potassium (mg)
18:2 (g)	Sodium (mg)
18:3 (g)	Zinc (mg)
18:4 (g)	Copper (mg)
20:4 (g)	Selenium (µg)
20:5 n-3 (g)	
22:5 n-3 (g)	Caffeine (mg)
22:6 n-3 (g)	Theobromine (mg)

Appendix A: Adding Food Code Descriptions or Modification Code Descriptions to Your Files

Two technical support files are included with the Individual Foods Files: the Food Code Description file (**DRXFCD_C)** and the Modification Code Description file **(DRXMCD_C)**. The **DRXFCD_C** file includes abbreviated descriptions (up to 60 characters) and complete descriptions (up to 200 characters) associated with each USDA food code identified in the Individual Foods Files. The **DRXMCD_C** file includes descriptions associated with each modification code identified in the Individual Foods Files.

The Food Code Description File (DRXFCD_C) contains three variables:

1. **DRDIFDCD** a numeric value corresponding to DR1IFDCD in the file DR1IFF_C or DR2IFDCD in the file DR2IFF_C;
2. **DRXFCSD** a short description (up to 60 characters) of the food code.
3. **DRXFCLD** a long description (up to 200 characters) of the food code.

The Modification Code Description File (DRXMCD_C) contains two variables:

1. **DRDMC** a numeric value corresponding to DR1MC in the file DR1IFF_C or DR2MC in the file DR2IFF_C;
2. **DRMCD** a description (up to 200 characters) of the modification code.

The following SQL code is an example of appending the modifications code description (here called DR1MCD) to one of the individual foods files. This code is for SAS® Proc SQL. Other SQL implementations may be different. This same technique may be used for the Food Code Description File as well.

```
create table dr1iff_c_plus as
  select a.*,b.drxmcd as dr1mcd
  from nhanes.dr1iff_c a
      left join
      nhanes.drxmcd_c b
  on a.dr1mc = b.drxmc
  order by seqn , dr1iline;
```

SAS® users may wish to use Proc Format to assign labels to the food codes or to the modification codes. The following example assigns a permanent format to the food code based on the short description. It is assumed that the user has stored the Individual Foods Files and the Food Code Description file in a library called NHANES and wishes to store the formats there as well.

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```
Options FmtSearch = (NHANES);

Data DRXFMT;
      Set NHANES.DRXFCD_C;
      Retain FMTNAME 'DRDIFDCD';
      Rename DRDIFDCD = Start;
      Rename DRXFCSD = Value;
      Drop DRXFCLD;
      Run;

Proc Format CntlIn= DRXFMT
      Library=NHANES;
      Run;

Proc DataSets Lib=NHANES;
      Modify DR1IFF_C;
      Format DR1IFDCD DRDIFDCD.;
      Modify DR2IFF_C;
      Format DR2IFDCD DRDIFDCD.;
      Quit;
```

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NCHS Locator Fields

Title: Dietary Interview - Individual Foods Files (DR1IFF_C & DR2IFF_C)

Contact Number: 1-866-441-NCHS

Years of Content: 2003–2004

First Published: September 2006

Revised: N/A

Access Constraints: None

Use Constraints: None

Geographic Coverage: National

Subject: What we Eat in America: Individual Foods Files

Record Source: NHANES 2003–2004

Survey Methodology: NHANES 2003–2004 is a stratified multistage probability sample of the civilian non-institutionalized population of the U.S.

Medium: NHANES Web site; SAS transport files

National Health and Nutrition Examination Survey
Codebook for Data Production (2003-2004)

Dietary Interview - Individual Foods File (Second Day) (DR2IFF_C)
Person Level Data

September 2006

SEQN	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Respondent sequence number
English Text: Respondent sequence number.	
English Instructions: One of the key variables for the file. The primary key variables are SEQN and DR2ILINE.	

DR2ILINE	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Food/individual component number
English Text: Food/individual component number	
English Instructions: One of the key variables for the file. The primary key variables are SEQN and DR2ILINE.	

Code or Value	Description	Count	Cumulative	Skip to Item
1 to 43	Range of Values	120871	120871	
.	Missing	0	120871	

WTDRD1	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Dietary day one sample weight

English Text: Dietary day one sample weight

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
887.3695022 to 293828.97477	Range of Values	120871	120871	
.	Missing	0	120871	

WTDR2D	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Dietary two-day sample weight

English Text: Dietary two-day sample weight

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
708.63828227 to 374736.26978	Range of Values	120871	120871	
.	Missing	0	120871	

DR2DRSTZ	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Dietary recall status
English Text: Dietary recall status	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
1	Reliable and met the minimum criteria	119195	119195	
2	Not reliable or not met the minimum criteria	0	119195	
4	Reported consuming breast-milk	1676	120871	
5	Not done	0	120871	
.	Missing	0	120871	

DR2EXMER	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Interviewer ID code
English Text:	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
11 to 97	Range of Values	120871	120871	
.	Missing	0	120871	

DRABF	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Breast-fed infant (either day)
English Text: Indicates whether the sample person was an infant who was breast-fed on either of the two recall days.	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
1	Yes	1768	1768	
2	No	119103	120871	
.	Missing	0	120871	

DRDINT	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Number of days of intake
English Text: Indicates whether the sample person has intake data for one or two days.	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
1	Day 1 only	0	0	
2	Day 1 and day 2	120871	120871	
.	Missing	0	120871	

DR2DAY	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Intake day of week
English Text: Intake day of the week	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
1	Sunday	23195	23195	
2	Monday	28001	51196	
3	Tuesday	22975	74171	
4	Wednesday	24422	98593	
5	Thursday	7795	106388	
6	Friday	9213	115601	
7	Saturday	5270	120871	
.	Missing	0	120871	

DR2LANG	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Language SP/Proxy used mostly
English Text: The SP/Proxy spoke mostly:	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
1	English	105969	105969	
2	Spanish	13508	119477	
3	English and Spanish	1216	120693	
4	Other	0	120693	
.	Missing	178	120871	

DR2CCMNM	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Combination food number

English Text: Combination food number

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 12	Range of Values	120871	120871	
.	Missing	0	120871	

DR2CCMTX	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Combination food type

English Text: Combination food type

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
0	Non-combination food	63123	63123	
1	Beverage w/ additions	9142	72265	
2	Cereal w/ additions	6472	78737	
3	Bread/baked products w/ additions	6421	85158	
4	Salad	5877	91035	
5	Sandwiches	14402	105437	
6	Soup	713	106150	
7	Frozen meals	46	106196	
8	Ice cream/frozen yogurt w/ additions	329	106525	
9	Dried beans and vegetable w/ additions	4403	110928	
10	Fruit w/ additions	371	111299	
11	Tortilla products	3119	114418	
12	Meat, poultry, fish	2540	116958	
13	Lunchables	109	117067	
14	Chips w/ additions	478	117545	
90	Other mixtures	3326	120871	
.	Missing	0	120871	

DR2_020	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Time of eating occasion (HH:MM)

English Text: What time did you begin to eat/drink the meal/food?

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
00:00 to 23:59	Range of Values	120871	120871	
.	Missing	0	120871	

DR2_030Z	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Name of eating occasion

English Text: Name of eating occasion

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
1	Breakfast	22439	22439	
2	Lunch	27804	50243	
3	Dinner	27483	77726	
4	Supper	4967	82693	
5	Brunch	513	83206	
6	Snack	18787	101993	
7	Drink	3969	105962	
8	Infant feeding	2587	108549	
9	Extended consumption	453	109002	
10	Desayano (breakfast)	2040	111042	
11	Almuerzo (breakfast)	2073	113115	
12	Comida (lunch)	2785	115900	
13	Merienda (snack)	611	116511	
14	Cena (dinner)	2509	119020	
15	Entre comida (snack)	474	119494	
16	Botana (snack)	421	119915	
17	Bocadillo (snack)	411	120326	
18	Tentempie (snack)	47	120373	
19	Bebida (drink)	483	120856	
91	Other	15	120871	
99	Don't know	0	120871	
.	Missing	0	120871	

DR2FS	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Source of food

English Text: Where did you get (this/most of the ingredients for this) {FOODNAME}?

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
1	Store	92379	92379	
2	Restaurant with waiter/waitress	5958	98337	
3	Restaurant fast food/pizza	8701	107038	
4	Bar/tavern/lounge	313	107351	
5	Restaurant no additional information	73	107424	
6	Cafeteria not at school	1008	108432	
7	Cafeteria at school	4967	113399	
8	Child care center	249	113648	
9	Family/adult day care center	195	113843	
10	Soup kitchen/shelter/food pantry	12	113855	
11	Meals on Wheels	82	113937	
12	Community food program - other	349	114286	
13	Community program no additional information	0	114286	
14	Vending machine	441	114727	
15	Common coffee pot or snack tray	467	115194	
16	From someone else/gift	2859	118053	
17	Mail order purchase	100	118153	
18	Residential dining facility	242	118395	
19	Grown or caught by you or someone you know	581	118976	
20	Fish caught by you or someone you know	21	118997	
24	Sport, recreation, or entertainment facility	265	119262	
25	Street vendor, vending truck	309	119571	
91	Other, specify	43	119614	
99	Don't know	39	119653	
.	Missing	1218	120871	

DR2_040Z	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Was this food eaten at home?

English Text: Was this food eaten at home?

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
1	Yes	85635	85635	
2	No	34308	119943	
7	Refused	4	119947	
9	Don't know	0	119947	
.	Missing	924	120871	

DR2IFDCD	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	USDA food code

English Text: USDA food code

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
11000000 to 94210100	Range of Values	120871	120871	
.	Missing	0	120871	

DR2MC	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Modification code
English Text: Modification code	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
100000 to 206570	Range of Values	3580	3580	
0	No modification	117291	120871	
.	Missing	0	120871	

DR2IGRMS	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Grams
English Text: Gram weight of the food/individual component	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0.04 to 8584	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IKCAL	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Energy (kcal)
English Text: Energy (kcal)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 4480	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IPROT	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Protein (gm)
English Text: Protein (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 293.4	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ICARB	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Carbohydrate (gm)
English Text: Carbohydrate (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 651.34	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ISUGR	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Total sugars (gm)
English Text: Total sugars (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 634.67	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IFIBE	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Dietary fiber (gm)
English Text: Dietary fiber (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 51.1	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ITFAT	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Total fat (gm)
English Text: Total fat (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 187.74	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ISFAT	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Total saturated fatty acids (gm)
English Text: Total saturated fatty acids (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 71.502	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IMFAT	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Total monounsaturated fatty acids (gm)
English Text: Total monounsaturated fatty acids (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 84.66	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IPFAT	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Total polyunsaturated fatty acids (gm)
English Text: Total polyunsaturated fatty acids (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 69.668	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ICHOL	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Cholesterol (mg)
English Text: Cholesterol (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 1477	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IATOC	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Vitamin E as alpha-tocopherol (mg)
English Text: Vitamin E as alpha-tocopherol (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 61.8	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IATOA	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Added alpha-tocopherol (Vitamin E) (mg)
English Text: Added alpha-tocopherol (Vitamin E) (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 49.613	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IRET	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Retinol (mcg)
English Text: Retinol (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 17876	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IVARA	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Vitamin A, RAE (mcg)
English Text: Vitamin A as retinol activity equivalents (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 17913	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IACAR	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Alpha-carotene (mcg)
English Text: Alpha-carotene (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 14730	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IBCAR	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Beta-carotene (mcg)
English Text: Beta-carotene (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 35551	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ICRYP	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Beta-cryptoxanthin (mcg)
English Text: Beta-cryptoxanthin (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 7091	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ILYCO	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Lycopene (mcg)
English Text: Lycopene (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 119460	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ILZ	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Lutein + zeaxanthin (mcg)
English Text: Lutein + zeaxanthin (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 44602	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IVB1	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Thiamin (Vitamin B1) (mg)
English Text: Thiamin (Vitamin B1) (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 7.751	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IVB2	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Riboflavin (Vitamin B2) (mg)
English Text: Riboflavin (Vitamin B2) (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 8.886	Range of Values	120077	120077	
.	Missing	794	120871	

DR2INIAC	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Niacin (mg)
English Text: Niacin (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 97.13	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IVB6	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Vitamin B6 (mg)
English Text: Vitamin B6 (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 10.375	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IFOLA	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Total Folate (mcg)
English Text: Total Folate (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 3326	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IFA	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Folic acid (mcg)
English Text: Folic acid (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 3285	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IFF	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Food folate (mcg)
English Text: Food folate (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 632	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IFDFE	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Folate, DFE (mcg)
English Text: Folate as dietary folate equivalents (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 5626	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IVB12	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Vitamin B12 (mcg)
English Text: Vitamin B12 (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 240.19	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IB12A	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Added vitamin B12 (mcg)
English Text: Added vitamin B12 (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 29.725	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IVC	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Vitamin C (mg)
English Text: Vitamin C (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 812.7	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IVK	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Vitamin K (mcg)
English Text: Vitamin K (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 1593.3	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ICALC	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Calcium (mg)
English Text: Calcium (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 4057	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IPHOS	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Phosphorus (mg)
English Text: Phosphorus (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 3522	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IMAGN	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Magnesium (mg)
English Text: Magnesium (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 897	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IIRON	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Iron (mg)
English Text: Iron (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 96.19	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IZINC	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Zinc (mg)
English Text: Zinc (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 187.07	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ICOPP	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Copper (mg)
English Text: Copper (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 33.746	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ISODI	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Sodium (mg)
English Text: Sodium (mg)(adjusted for salt use in food preparation)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 8073	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IPOTA	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Potassium (mg)
English Text: Potassium (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 7312	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ISELE	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Selenium (mcg)
English Text: Selenium (mcg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 461.8	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ICAFF	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Caffeine (mg)
English Text: Caffeine (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 1717	Range of Values	120077	120077	
.	Missing	794	120871	

DR2ITHEO	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Theobromine (mg)
English Text: Theobromine (mg)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 946	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IALCO	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Alcohol (gm)
English Text: Alcohol (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 645.1	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IMOIS	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Moisture (gm)
English Text: Moisture (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 8558.25	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IS040	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	SFA 4:0 (Butanoic) (gm)
English Text: SFA 4:0 (Butanoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 4.123	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IS060	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	SFA 6:0 (Hexanoic) (gm)
English Text: SFA 6:0 (Hexanoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 2.565	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IS080	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	SFA 8:0 (Octanoic) (gm)
English Text: SFA 8:0 (Octanoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 4.657	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IS100	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	SFA 10:0 (Decanoic) (gm)
English Text: SFA 10:0 (Decanoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 3.7	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IS120	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	SFA 12:0 (Dodecanoic) (gm)
English Text: SFA 12:0 (Dodecanoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 29.493	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IS140	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	SFA 14:0 (Tetradecanoic) (gm)
English Text: SFA 14:0 (Tetradecanoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 11.644	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IS160	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	SFA 16:0 (Hexadecanoic) (gm)
English Text: SFA 16:0 (Hexadecanoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 41.503	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IS180	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	SFA 18:0 (Octadecanoic) (gm)
English Text: SFA 18:0 (Octadecanoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 18.773	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IM161	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	MFA 16:1 (Hexadecenoic) (gm)
English Text: MFA 16:1 (Hexadecenoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 9.591	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IM181	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	MFA 18:1 (Octadecenoic) (gm)
English Text: MFA 18:1 (Octadecenoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 67.65	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IM201	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	MFA 20:1 (Eicosenoic) (gm)
English Text: MFA 20:1 (Eicosenoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 3.596	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IM221	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	MFA 22:1 (Docosenoic) (gm)
English Text: MFA 22:1 (Docosenoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 10.391	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IP182	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	PFA 18:2 (Octadecadienoic) (gm)
English Text: PFA 18:2 (Octadecadienoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 66.217	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IP183	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	PFA 18:3 (Octadecatrienoic) (gm)
English Text: PFA 18:3 (Octadecatrienoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 10.896	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IP184	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	PFA 18:4 (Octadecatetraenoic) (gm)
English Text: PFA 18:4 (Octadecatetraenoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 0.803	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IP204	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	PFA 20:4 (Eicosatetraenoic) (gm)
English Text: PFA 20:4 (Eicosatetraenoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 2.474	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IP205	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	PFA 20:5 (Eicosapentaenoic) (gm)
English Text: PFA 20:5 (Eicosapentaenoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 2.525	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IP225	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	PFA 22:5 (Docosapentaenoic) (gm)
English Text: PFA 22:5 (Docosapentaenoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 2.282	Range of Values	120077	120077	
.	Missing	794	120871	

DR2IP226	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	PFA 22:6 (Docosahexaenoic) (gm)
English Text: PFA 22:6 (Docosahexaenoic) (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 6.63	Range of Values	120077	120077	
.	Missing	794	120871	