National Health and Nutrition Examination Survey 2003-2004

Documentation, Codebook, and Frequencies

Exam Component: Dietary Interview - Total Nutrient Intakes Data (Second Day)

Survey Years:
2003 to 2004

SAS Export File:
DR2TOT_C.XPT

September 2006

NHANES 2003–2004 Data Documentation

Exam Component: **Dietary Interview - Total Nutrient Intakes Files (DR1TOT_C & DR2TOT_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 2003-2004 and WWEIA 2001-2002

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.

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.

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. An appendix to the Individual Foods Files documentation provides SAS code examples that may be used to link the food code or the modification code description to the Individual Foods File.

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. The names for both Day 1 and Day 2 variables are listed in Table 2.

This document (NHANES 2003-2004 Data Documentation for Total Nutrient Intakes Files) provides additional details important to understanding the content of the Total Nutrient Intakes Files (DR1TOT_C and DR2TOT_C). The Total Nutrient Intakes Files provide a summary record of total nutrient intakes for each individual. Each total intake record contains the following information:

- Number of days of complete intake
- Day of week of intake
- Daily aggregates of food energy and 62 nutrients/food components (listed in Table 3) from all foods, as calculated using USDA's Food and Nutrient Database for Dietary Studies 2.0 (FNDDS 2.0)
- Total number of foods reported for that participant
- Whether the amount of food consumed was usual, much more than usual, or much less than usual
- Daily amount of water consumed (total plain water, total home tap water and source of tap water, total bottled water, and plain carbonated water)
- Type of salt used and how often added at the table and in food preparation (Day 1 file only)
- 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 (Day 1 file only)
- Frequency of fish and shellfish consumption in the past 30 days (children 1-5 years and women 16-49 years, Day 1 file only)

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 (2, 3).

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) (4). 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. (5).

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 (6, 7).

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 (5).

USDA's Food and Nutrient Database for Dietary Studies, 2.0 (FNDDS 2.0), was used for processing the 2003-2004 intakes (8). 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 (9). 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 (5, 8).

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 Total Nutrient Intakes File (Day 1 and Day 2) contains one record for each participant. 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 name for the intake day of week is DR1DAY in the Day 1 file and DR2DAY 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. The codes are the following:

1 = Reliable and met the minimum criteria

For individuals with a code 1, all relevant variables associated with the 24-hour dietary recall contain a value.

2 = Not reliable or did not meet the minimum criteria

Individuals with a code 2 have incomplete records. No data on total nutrient intakes and the total number of foods

are provided for these cases.

4 = Reported consuming breast milk

In the Individual Foods Files, records containing reports of human milk have missing values for the amount consumed and for the amounts of energy and nutrients from human milk. Because of the missing nutrient information for human milk, no total nutrient intakes were derived for participants with a code 4. 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.

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.

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 a record in the Total Nutrients File with values only in the following variables: the respondent sequence number (SEQN), the dietary recall status code (DR1DRSTZ or DR2DRSTZ) and for children 1-5 and females 16-49 years old, the fish and shellfish questions in the DR1TOT_C file (DRD340, DRD350A-K, DRD350AQ-JQ, DRD360, DRD370A-V, and DRD370AQ-UQ)

In addition to the status code described above, the variable DR1_300 and DR2_300 denotes the participant's assessment of whether the amount of food consumed on the recall day was usual, much more than usual, or much less than usual.

Participants Reported Fasting: Three participants reported fasting during one of their intake collection days. Their dietary recall status for the fasting day is coded as "1" (complete and reliable). The total number of foods reported and all total nutrient intakes variables are coded as "0". Values are present for other variables collected after

the dietary recall, such as water consumption. By definition, no individual food consumption is reported in these cases, therefore, no records were included in the Individual Foods File for these individuals for the specific fasting day.

Special Diet Variable: This is the first WWEIA NHANES data release to include information on 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. The variable DRQSDIET identifies whether a participant is on a special diet. The variables DRQSDT1 through DRQSDT8 and DRQSDT91 identify the type of diet(s) that the participant is following. This information was also collected in 2002 but was not publicly released because of confidentiality issues concerning single-year data.

Note that responses to the type of diet were collected as "code all that apply". A participant could report more than one type of diet, and all responses were recorded. The variable DRQSDT1 denotes the type of diet the participant followed specifically for weight loss purposes, which includes a variety of low calorie diets, low carbohydrate diets and/or high protein diets. If the participant reported being on a high protein diet for the purpose of gaining weight or muscle building instead of weight loss, the response was coded in variable DRQSDT8 (Weight gain/Muscle building diet).

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. DR1TOT_C and DR2TOT_C Variables by Position

Day 1 Name	Day 2 Name	Variable Label
SEQN	SEQN	Respondent sequence 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 the week
DR1LANG	DR2LANG	Language SP/proxy used mostly
DR1MNRSP	DR2MNRSP	Main respondent for this interview
DR1HELPD	DR2HELPD	Helped in responding for this interview
DBQ095Z	*	Type of salt you use
DBD100	*	How often add salt to food at table
DRQSPREP	*	Salt used in preparation?
DRQSDIET	*	On special diet?
DRQSDT1	*	Weight loss/ low cal/ low carb/ hi pro diet
DRQSDT2	*	Low fat/ low cholesterol diet
DRQSDT3	*	Low salt/ low sodium diet
DRQSDT4	*	Sugar free/ low sugar diet
DRQSDT5	*	Low fiber diet
DRQSDT6	*	High fiber diet
DRQSDT7	*	Diabetic diet
DRQSDT8	*	Weight gain/ muscle building diet
DRQSDT91	*	Other special diet
DR1TNUMF	DR2TNUMF	Number of foods
DR1TKCAL	DR2TKCAL	Energy (kcal)

Day 1 Name	Day 2 Name	Variable Label
DR1TPROT	DR2TPROT	Protein (gm)
DR1TCARB	DR2TCARB	Carbohydrate (gm)
DR1TSUGR	DR2TSUGR	Total sugars (gm)
DR1TFIBE	DR2TFIBE	Dietary fiber (gm)
DR1TTFAT	DR2TTFAT	Total fat (gm)
DR1TSFAT	DR2TSFAT	Total saturated fatty acids (gm)
DR1TMFAT	DR2TMFAT	Total monounsaturated fatty acids (gm)
DR1TPFAT	DR2TPFAT	Total polyunsaturated fatty acids (gm)
DR1TCHOL	DR2TCHOL	Cholesterol (mg)
DR1TATOC	DR2TATOC	Vitamin E as alpha-tocopherol (mg)
DR1TATOA	DR2TATOA	Added alpha-tocopherol (Vitamin E) (mg)
DR1TRET	DR2TRET	Retinol (mcg)
DR1TVARA	DR2TVARA	Vitamin A, RAE (mcg)
DR1TACAR	DR2TACAR	Alpha-carotene (mcg)
DR1TBCAR	DR2TBCAR	Beta-carotene (mcg)
DR1TCRYP	DR2TCRYP	Beta-cryptoxanthin (mcg)
DR1TLYCO	DR2TLYCO	Lycopene (mcg)
DR1TLZ	DR2TLZ	Lutein + zeaxanthin (mcg)
DR1TVB1	DR2TVB1	Thiamin (vitamin B1) (mg)
DR1TVB2	DR2TVB2	Riboflavin (vitamin B2) (mg)
DR1TNIAC	DR2TNIAC	Niacin (mg)
DR1TVB6	DR2TVB6	Vitamin B6 (mg)
DR1TFOLA	DR2TFOLA	Total folate (mcg)
DR1TFA	DR2TFA	Folic acid (mcg)
DR1TFF	DR2TFF	Food folate (mcg)
DR1TFDFE	DR2TFDFE	Folate, DFE (mcg)
DR1TVB12	DR2TVB12	Vitamin B12 (mcg)

Day 1 Name	Day 2 Name	Variable Label
DR1TB12A	DR2TB12A	Added vitamin B12 (mcg)
DR1TVC	DR2TVC	Vitamin C (mg)
DR1TVK	DR2TVK	Vitamin K (mcg)
DR1TCALC	DR2TCALC	Calcium (mg)
DR1TPHOS	DR2TPHOS	Phosphorus (mg)
DR1TMAGN	DR2TMAGN	Magnesium (mg)
DR1TIRON	DR2TIRON	Iron (mg)
DR1TZINC	DR2TZINC	Zinc (mg)
DR1TCOPP	DR2TCOPP	Copper (mg)
DR1TSODI	DR2TSODI	Sodium (mg)
DR1TPOTA	DR2TPOTA	Potassium (mg)
DR1TSELE	DR2TSELE	Selenium (mcg)
DR1TCAFF	DR2TCAFF	Caffeine (mg)
DR1TTHEO	DR2TTHEO	Theobromine (mg)
DR1TALCO	DR2TALCO	Alcohol (gm)
DR1TMOIS	DR2TMOIS	Moisture (gm)
DR1TS040	DR2TS040	SFA 4:0 (Butanoic) (gm)
DR1TS060	DR2TS060	SFA 6:0 (Hexanoic) (gm)
DR1TS080	DR2TS080	SFA 8:0 (Octanoic) (gm)
DR1TS100	DR2TS100	SFA 10:0 (Decanoic) (gm)
DR1TS120	DR2TS120	SFA 12:0 (Dodecanoic) (gm)
DR1TS140	DR2TS140	SFA 14:0 (Tetradecanoic) (gm)
DR1TS160	DR2TS160	SFA 16:0 (Hexadecanoic) (gm)
DR1TS180	DR2TS180	SFA 18:0 (Octadecanoic) (gm)
DR1TM161	DR2TM161	MFA 16:1 (Hexadecenoic) (gm)
DR1TM181	DR2TM181	MFA 18:1 (Octadecenoic) (gm)
DR1TM201	DR2TM201	MFA 20:1 (Eicosenoic) (gm)

Day 1 Name	Day 2 Name	Variable Label
DR1TM221	DR2TM221	MFA 22:1 (Docosenoic) (gm)
DR1TP182	DR2TP182	PFA 18:2 (Octadecadienoic) (gm)
DR1TP183	DR2TP183	PFA 18:3 (Octadecatrienoic) (gm)
DR1TP184	DR2TP184	PFA 18:4 (Octadecatetraenoic) (gm)
DR1TP204	DR2TP204	PFA 20:4 (Eicosatetraenoic) (gm)
DR1TP205	DR2TP205	PFA 20:5 (Eicosapentaenoic) (gm)
DR1TP225	DR2TP225	PFA 22:5 (Docosapentaenoic) (gm)
DR1TP226	DR2TP226	PFA 22:6 (Docosahexaenoic) (gm)
DR1_300	DR2_300	Compare food consumed yesterday to usual
DR1_320	DR2_320	Total plain water drank yesterday (gm)
DR1_330	DR2_330	Total tap water drank yesterday (gm)
DR1BWATR	DR2BWATR	Total bottled water drank yesterday (gm)
DR1CWATR	DR2CWATR	Plain carbonated water (gm)
DR1TWS	DR2TWS	Tap water source
DRD340	*	Shellfish eaten during past 30 days
DRD350A	*	Clams eaten during past 30 days
DRD350AQ	*	# of times clams eaten in past 30 days
DRD350B	*	Crabs eaten during past 30 days
DRD350BQ	*	# of times crabs eaten in past 30 days
DRD350C	*	Crayfish eaten during past 30 days
DRD350CQ	*	# of times crayfish eaten past 30 days
DRD350D	*	Lobsters eaten during past 30 days
DRD350DQ	*	# of times lobsters eaten past 30 days
DRD350E	*	Mussels eaten during past 30 days
DRD350EQ	*	# of times mussels eaten in past 30 days
DRD350F	*	Oysters eaten during past 30 days
DRD350FQ	*	# of times oysters eaten in past 30 days

Day 1 Name	Day 2 Name	Variable Label
DRD350G	*	Scallops eaten during past 30 days
DRD350GQ	*	# of times scallops eaten past 30 days
DRD350H	*	Shrimp eaten during past 30 days
DRD350HQ	*	# of times shrimp eaten in past 30 days
DRD350I	*	Other shellfish eaten past 30 days
DRD350IQ	*	# of times other shellfish eaten
DRD350J	*	Other unknown shellfish eaten past 30 d
DRD350JQ	*	# of times other unknown shellfish eaten
DRD350K	*	Refused on shellfish eaten past 30 days
DRD360	*	Fish eaten during past 30 days
DRD370A	*	Breaded fish products eaten past 30 days
DRD370AQ	*	# of times breaded fish products eaten
DRD370B	*	Tuna eaten during past 30 days
DRD370BQ	*	# of times tuna eaten in past 30 days
DRD370C	*	Bass eaten during past 30 days
DRD370CQ	*	# of times bass eaten in past 30 days
DRD370D	*	Catfish eaten during past 30 days
DRD370DQ	*	# of times catfish eaten in past 30 days
DRD370E	*	Cod eaten during past 30 days
DRD370EQ	*	# of times cod eaten in past 30 days
DRD370F	*	Flatfish eaten during past 30 days
DRD370FQ	*	# of times flatfish eaten past 30 days
DRD370G	*	Haddock eaten during past 30 days
DRD370GQ	*	# of times haddock eaten in past 30 days
DRD370H	*	Mackerel eaten during past 30 days
DRD370HQ	*	# of times mackerel eaten past 30 days
DRD370I	*	Perch eaten during past 30 days

Day 1 Name	Day 2 Name	Variable Label
DRD370IQ	*	# of times perch eaten in past 30 days
DRD370J	*	Pike eaten during past 30 days
DRD370JQ	*	# of times pike eaten in past 30 days
DRD370K	*	Pollock eaten during past 30 days
DRD370KQ	*	# of times pollock eaten in past 30 days
DRD370L	*	Porgy eaten during past 30 days
DRD370LQ	*	# of times porgy eaten in past 30 days
DRD370M	*	Salmon eaten during past 30 days
DRD370MQ	*	# of times salmon eaten in past 30 days
DRD370N	*	Sardines eaten during past 30 days
DRD370NQ	*	# of times sardines eaten past 30 days
DRD370O	*	Sea bass eaten during past 30 days
DRD370OQ	*	# of times sea bass eaten past 30 days
DRD370P	*	Shark eaten during past 30 days
DRD370PQ	*	# of times shark eaten in past 30 days
DRD370Q	*	Swordfish eaten during past 30 days
DRD370QQ	*	# of times swordfish eaten past 30 days
DRD370R	*	Trout eaten during past 30 days
DRD370RQ	*	# of times trout eaten in past 30 days
DRD370S	*	Walleye eaten during past 30 days
DRD370SQ	*	# of times walleye eaten in past 30 days
DRD370T	*	Other fish eaten during past 30 days
DRD370TQ	*	# of times other fish eaten past 30 days
DRD370U	*	Other unknown fish eaten in past 30 days
DRD370UQ	*	# of times other unknown fish eaten
DRD370V	*	Refused on fish eaten past 30 days

*Not collected on Day 2.

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)

NCHS Locator Fields

Title: Dietary Interview - Total Nutrient Intakes Files (DR1TOT_C & DR2TOT_C)

Contact Number: 1-866-441-NCHS

Years of Content: 2003–2004

First Published: September 2006

Revised: NA

Access Constraints: None

Use Constraints: None

Geographic Coverage: National

Subject: What we Eat in America: Total Nutrient Intakes 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 - Total Nutrient Intakes File (Second Day) (DR2TOT_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:	

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	9034	9034	
.	Missing	609	9643	

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	8354	8354	
.	Missing	1289	9643	

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	8220	8220	
2	Not reliable or not met the minimum criteria	52	8272	
4	Reported consuming breast-milk	134	8406	
5	Not done	1237	9643	
.	Missing	0	9643	

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

Code or Value	Description	Count	Cumulative	Skip to Item
11 to 97	Range of Values	8406	8406	
.	Missing	1237	9643	

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	141	141	
2	No	8893	9034	
.	Missing	609	9643	

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	680	680	
2	Day 1 and day 2	8354	9034	
.	Missing	609	9643	

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

Code or Value	Description	Count	Cumulative	Skip to Item
1	Sunday	1586	1586	
2	Monday	1947	3533	
3	Tuesday	1605	5138	
4	Wednesday	1670	6808	
5	Thursday	562	7370	
6	Friday	652	8022	
7	Saturday	384	8406	
.	Missing	1237	9643	

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	7379	7379	
2	Spanish	931	8310	
3	English and Spanish	84	8394	
4	Other	0	8394	
.	Missing	1249	9643	

DR2MNRSP	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Main respondent for this interview

English Text: Who was the main respondent for this interview?

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
1	SP	6110	6110	
2	Mother of SP	1886	7996	
3	Father of SP	120	8116	
4	Wife of SP	52	8168	
5	Husband of SP	8	8176	
6	Daughter of SP	28	8204	
7	Son of SP	8	8212	
8	Grandparent of SP	36	8248	
9	Friend, Partner, Non Relative	0	8248	
10	Translator, not a HH member	0	8248	
11	Child care provider, Caretaker	9	8257	
12	Other Relative	34	8291	
13	Other specify	4	8295	
77	Refused	0	8295	
99	Don't know	4	8299	
.	Missing	1344	9643	

DR2HELPD	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Helped in responding for this interview

English Text: Who helped in responding for this interview

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
1	SP	242	242	
2	Mother of SP	223	465	
3	Father of SP	29	494	
4	Wife of SP	120	614	
5	Husband of SP	21	635	
6	Daughter of SP	14	649	
7	Son of SP	2	651	
8	Grandparent of SP	7	658	
9	Friend, Partner, Non Relative	14	672	
10	Translator, not a HH member	2	674	
11	Child care provider, Caretaker	8	682	
12	Other Relative	49	731	
13	No one	7559	8290	
14	Other specify	2	8292	
77	Refused	0	8292	
99	Don't know	4	8296	
.	Missing	1347	9643	

DR2TNUMF	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Number of foods
English Text: Total number of foods reported in the individual foods file	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 42	Range of Values	8354	8354	
.	Missing	1289	9643	

DR2TKCAL	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 9265	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TPROT	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 407.31	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TCARB	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 1197.06	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TSUGR	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 789.29	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TFIBE	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 85.9	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TTFAT	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 375.11	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TSFAT	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 149.64	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TMFAT	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 150.244	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TPFAT	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 101.403	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TCHOL	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 2956	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TATOC	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 72.23	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TATOA	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 56.25	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TRET	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 19369	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TVARA	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 19854	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TACAR	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 14781	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TBCAR	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 36576	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TCRYP	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 7094	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TLYCO	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 142385	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TLZ	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 50768	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TVB1	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 10.78	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TVB2	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 14.594	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TNIAC	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 163.371	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TVB6	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 12.188	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TFOLA	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 3663	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TFA	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 3440	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TFF	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 956	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TFDFE	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 6057	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TVB12	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 260.34	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TB12A	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	8220	8220	
.	Missing	1423	9643	

DR2TVC	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 1115.6	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TVK	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 2217.3	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TCALC	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 5620	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TPHOS	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 6829	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TMAGN	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 1187	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TIRON	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 126.95	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TZINC	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 217.53	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TCOPP	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 35.768	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TSODI	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 16951	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TPOTA	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 14768	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TSELE	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 665.8	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TCAFF	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 2120	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TTHEO	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 1096	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TALCO	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	8220	8220	
.	Missing	1423	9643	

DR2TMOIS	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 10481.84	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TS040	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 7.595	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TS060	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 4.2	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TS080	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 8.52	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TS100	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 6.306	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TS120	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 29.61	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TS140	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 18.973	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TS160	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 76.688	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TS180	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 38.524	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TM161	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 16.912	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TM181	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 144.083	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TM201	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 4.124	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TM221	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 10.415	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TP182	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 97.246	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TP183	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 12.085	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TP184	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	8220	8220	
.	Missing	1423	9643	

DR2TP204	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 2.827	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TP205	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 2.555	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TP225	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 2.324	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2TP226	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 6.745	Range of Values	8220	8220	
.	Missing	1423	9643	

DR2_300	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Compare food consumed yesterday to usual

English Text: Was the amount of food that {you/NAME} ate yesterday much more than usual, usual, or much less than usual?

English Instructions:

Code or Value	Description	Count	Cumulative	Skip to Item
1	Much more than usual	665	665	
2	Usual	6477	7142	
3	Much less than usual	1240	8382	
7	Refused	0	8382	
9	Don't know	19	8401	
.	Missing	1242	9643	

DR2_320	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Total plain water drank yesterday (gm)

English Text: Total plain water drank yesterday - including plain tap water, water from a drinking fountain, water from a water cooler, bottled water, and spring water.

English Instructions: Release data converted to grams.

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 11366.4	Range of Values	8364	8364	
.	Missing	1279	9643	

DR2_330	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Total tap water drank yesterday (gm)
English Text: Total tap water drank yesterday - including filtered tap water and water from a drinking fountain.	
English Instructions: Release data converted to grams.	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 11366.4	Range of Values	8374	8374	
.	Missing	1269	9643	

DR2BWATR	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Total bottled water drank yesterday (gm)
English Text: Total bottled water drank yesterday. (gm)	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 7577.6	Range of Values	8394	8394	
.	Missing	1249	9643	

DR2CWATR	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Plain carbonated water (gm)
English Text: Plain carbonated water drank yesterday - including unsweetened carbonated water, seltzer water, club soda, and carbonated bottled water such as Perrier.	
English Instructions: Release data converted to grams.	

Code or Value	Description	Count	Cumulative	Skip to Item
0 to 2841.6	Range of Values	8406	8406	
.	Missing	1237	9643	

DR2TWS	Target
	B(0 Yrs. to 150 Yrs.)
Hard Edits	**SAS Label**
	Tap Water Source
English Text: Tap Water Source	
English Instructions:	

Code or Value	Description	Count	Cumulative	Skip to Item
1	Community supply	4478	4478	
2	Well or rain cistern	424	4902	
3	Spring	52	4954	
91	Other	30	4984	
99	Don't know	131	5115	
.	Missing	4528	9643	