

FFQ Processing System Technical Documentation

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Overview

The FFQ Processing System takes a [batch](#) of completed FFQ forms as input and generates several datasets, the most important of which is the [daily nutrient intake dataset](#). This documentation outlines the major components of the processing system and provides details about the calculations used in producing the output datasets. It is intended primarily for users of NASR's newest FFQ forms (i.e. MSEL and GSEL and their Spanish language equivalents), but the concepts also apply to other forms (e.g. WHX).

Scanning

The first stage of the processing system is the scanning of a batch. FFQs are passed through a mark sense scanner where hand-marked questionnaire responses are converted into ASCII data.

Error Checking

The ASCII data produced by the scanner is checked for errors. If errors are detected they are written to a text file--this file is known as the error report and is included in the [batch output](#). If errors are detected on a questionnaire, processing is still completed. It is the responsibility of the researcher to determine the severity of the errors and whether a given FFQ should be considered "acceptable". However, the processing system does provide the outcome of a pass/fail test which is written to the error report as a reasonable guideline for acceptability. The [pass/fail test](#) and the [defaults used when errors are encountered](#) are described below.

Calculating Daily Nutrient Intake

Once error checking is complete, the processing system proceeds with calculating nutrient intake. This can be broken into two phases: (1) the estimation of annual servings and (2) the estimation of the nutrients associated with those annual servings.

(1) Annual Servings

In the first phase, the processing system estimates the number of annual medium servings for each FFQ food item. For a "regular" food item this means simply multiplying the reported frequency by the reported portion size. For example, a participant reporting a frequency of "1 per week" and a portion size of "Small" for the food item "Eggs" would be assigned 26 annual medium servings of "Eggs"-that's 52 annual medium servings for "1 per week" (see formats for [Regular Food Frequencies](#) below) multiplied by 0.5 for "Small" (see formats for [Portion Size](#) below).

For "adjusted" food items, the calculation of annual medium servings varies in complexity depending on the type of adjustment used. An example of a fairly simple adjustment is the calculation for "Cold cereal". Take a participant who reported "1 per day" as the frequency, "Medium" for the portion size, and marked the first and second cereals for the adjustment question that reads "When you ate cold cereal, what type did you usually eat?". The total annual medium servings of "Cold cereal" would be 365 (365 x 1.0). But this would be divided between two types of cereal so that there were 182.5 annual medium servings of "Highly fortified cereals" and 182.5 annual medium servings of "High fiber or bran cereals". Note that there is no food item in the nutrient database called "Cold cereals". Instead there are the four cereal types listed in the adjustment question.

More complex adjustments include the vegetable and fruit adjustments described below in the section titled [Vegetable and Fruit Summary Adjustments](#). Other adjustments are described in the section titled [Adjustment Questions: application and defaults](#).

(2) Nutrient Database

In the second phase, the processing system estimates annual nutrients consumed. For each food item the annual medium servings are multiplied by the single medium serving nutrient data for that food item which are stored in a nutrient database. Each record in the nutrient database represents the nutrient content of a single medium serving of a single food item. For example, there is a record for "Eggs" which has a Food ID (180 for GSEL; 1910 for MSEL) followed by values for grams (104.9), calories (192.9), fat (14.5), etc. When calculating annual nutrients consumed for "Eggs", each single medium serving nutrient value is multiplied by the annual medium servings for "Eggs" arrived at in the first phase. When this has been done for all food items, the food item nutrient results are summed and divided by 365 resulting in the average daily intake of each nutrient.

The Error Report and Error Defaults

The error report lists the locations and types of all errors. The report is sorted by FFQ booklet ID number. Note that the food item questions are numbered starting with FFRQ1 for "Cold cereals" through FFRQ103 for "Other candy, such as Lifesavers, licorice and jelly beans." Beverages are numbered starting at BFRQ1 for "Milk (all types) as a beverage" through BFRQ17 for "Liquor and mixed drinks." See [Survey Variables](#) below for a list of all the variables.

The following types of errors are reported:

- Multiple marks when only one is allowed
- Missing values when a value is required
- Food sections with less than half the foods marked

The table below shows the default behavior if errors or missing values are encountered in the frequency section of the FFQ. Note that the default behavior for adjustment questions and summary questions are described in other sections.

Scenario	Default Behavior
Food frequency is present, but portion size is missing	No error is reported. Medium portion size is used.
Food frequency is missing, but portion size is present	Error is reported. No consumption for this food.
Multiple marks for food frequency	Error is reported. No consumption for this food.
Food frequency is missing and portion size is missing	No error is reported. No consumption for this food.
Multiple marks for portion size	Error is reported. Medium portion size is used.

Pass/Fail Test

The error report includes the outcome of a pass/fail test. Any one of the following errors will generate a "fail" outcome:

- One or more illegal multiple mark response (this can be a food frequency, a portion, a summary, or an adjustment question)
- One or more missing summary question
- One or more bad page number (i.e. booklet IDs don't match)
- More than half the foods in a section are missing
- Illegal missing responses for three or more adjustment questions

Adjustment Questions: application and defaults

Food, beverage, and summary line items are preceded by "F", "B", and "S". Adjustment questions are preceded by "A". Note that where defaults for the men's (MSEL) and general (GSEL) surveys differ, they are explicitly stated.

Skin on chicken (A1)

1. Adjusts the following FFQ food line item: Chicken and turkey (F31)
2. Question options:
 - a. Almost always - 100% with skin, 0% without skin
 - b. Often - 75% with skin, 25% without skin
 - c. Sometimes - 50% with skin, 50% without skin
 - d. Rarely - 25% with skin, 75% without skin
 - e. Never - 0% with skin, 100% without skin
3. If a frequency is given for F31, but for any reason adjustment question (A1) is missing, the value **defaults to the "Sometimes" option**. An error is reported if the answer to the "yes/no" part of the question is "Yes."

Fat on meat (A2)

1. Adjusts the following FFQ line item: Beef, pork, ham and lamb (F27)
2. Questions options:
 - a. Almost always - 100% with fat, 0% without fat
 - b. Often - 75% with fat, 25% without fat
 - c. Sometimes - 50% with fat, 50% without fat
 - d. Rarely - 25% with fat, 75% without fat
 - e. Never - 0% with fat, 100% without fat
3. If a frequency is given for F27, but for any reason adjustment question (A2) is missing, the value **defaults to the "Rarely" option**. An error is reported if the answer to the "yes/no" part of the question is "Yes."

Type of ground meat (A3)

1. Adjusts the following FFQ line item: Ground meat, including hamburgers and meatloaf (F28)
2. Question options:
 - a. If only one option is marked
 - i. Regular - 100% regular ground beef
 - ii. Lean - 100% lean ground beef
 - iii. Extra lean - 100% extra lean ground beef
 - iv. Ground chicken or turkey - 100% ground turkey
 - v. Don't know - 50% extra lean ground beef, 50% lean ground beef
 - b. If two or more options are marked, each of the chosen food options (i.-iv.) will be added at $1/n$ where n is the number of food options chosen. Note that in this case "Don't know" is not considered a "food" option.
3. If a frequency is given for F28, but for any reason adjustment question (A3) is missing, the value **defaults to 50% "Extra lean" and 50% "Lean"**. An error is reported if the answer to the "yes/no" part of the question is "Yes."

Fortified Juices (A4)

1. Adds supplements proportional to the number of servings reported in food frequency line item B7. Values for nutrients correspond to formulations of nationally distributed brands of juices. For example, there are no brands that add only extra vitamin C, and there are no brands that add extra vitamin E without extra vitamin C.
2. Question options (amounts are per 8 oz serving):
 - a. "Extra vitamin C" only - no supplements added
 - b. "Vitamin E" only - 13.5 mg E, 72mg C
 - c. "Calcium" only - 330mg Calcium
 - d. "Extra vitamin C" and "Vitamin E" (not "Calcium") - same as b
 - e. "Extra vitamin C" and "Calcium" (not "Vitamin E") - 36mg C, 330mg Calcium
 - f. "Vitamin E" and "Calcium" (not "Extra vitamin C") - 13.5 mg E**, 72mg C, 330mg Calcium
 - g. "Extra vitamin C", "Vitamin E", and "Calcium" - same as f
3. Options "None" and "Don't know" are ignored

**This represents a 30 IU dose of a synthetic source (factor is 0.45 mg per IU).

Types of cold cereals (A5)

1. Adjusts the following FFQ line item: Cold cereal (F1)
2. Question options:
 - a. If only one option is marked:
 - i. Highly fortified cereals - 100% highly fortified cereals
 - ii. High fiber or bran cereals - 100% high fiber cereals
 - iii. Regular granola - 100% regular granola
 - iv. Other cereals - 100% other cereals
 - b. If two or more options are marked, each of the chosen food options (i.-iv.) will be added at 1/n where n is the number of food options chosen.
3. If a frequency is given for F1, but for any reason adjustment question (A5) is missing, the value **defaults to the "Other cereals" option**. An error is reported if the answer to the "yes/no" part of the question is "Yes."

Milk, cream or creamer on cereal (A6)

1. Adjusts the following FFQ line item: Milk on cereals (F3)
2. Question options:
 - a. If only one option is marked:
 - i. Cream or half and half - 100% half-and-half/cream
 - ii. Whole milk - 100% whole milk
 - iii. 2% milk - 100% two-percent milk
 - iv. 1% milk or buttermilk - 100% one-percent milk
 - v. Nonfat or skim milk - 100% nonfat milk
 - vi. Soy milk - 100% soy milk
 - vii. Non-dairy creamer - 100% non-dairy creamer
 - viii. Don't know - 100% two-percent milk

- b. If two or more options are marked, each of the chosen food options (i.-vii.) will be added at $1/n$ where n is the number of food options chosen. Note that in this case "Don't know" is not considered a "food" option.
- 3. If a frequency is given for F3, but for any reason adjustment question (A6) is missing, the value **defaults to the "2% milk" option**. An error is reported if the answer to the "yes/no" part of the question is "Yes."

Milk, cream or creamer on coffee or tea (A7)

- 1. Adjusts the following FFQ line items: Milk, cream, or creamer added to tea and coffee (B5)
- 2. Question options:
 - a. If only one option is marked:
 - i. Cream or half and half - 100% half-and-half/cream
 - ii. Whole milk - 100% whole milk
 - iii. 2% milk - 100% two-percent milk
 - iv. 1% milk or buttermilk - 100% one-percent milk
 - v. Nonfat or skim milk - 100% nonfat milk
 - vi. Soy milk - 100% soy milk
 - vii. Non-dairy creamer - 100% non-dairy creamer
 - viii. Don't know - 100% two-percent milk
 - b. If two or more options are marked, each of the chosen food options (i.-vii.) will be added at $1/n$ where n is the number of food options chosen. Note that in this case "Don't know" is not considered a "food" option.
- 3. If a frequency is given for B5, but for any reason adjustment question (A7) is missing, the value **defaults to the "2% milk" option**. An error is reported if the answer to the "yes/no" part of the question is "Yes."

Milk as a beverage (A8)

- 1. Adjusts the following FFQ line items: Milk as a beverage (B1) and Latte, mocha or hot chocolate (B2)
- 2. Question options:
 - a. If only one option is marked:
 - i. Whole milk - 100% whole milk
 - ii. 2% milk - 100% two-percent milk
 - iii. 1% milk or buttermilk - 100% one-percent milk
 - iv. Nonfat or skim milk - 100% nonfat milk
 - v. Soy milk - 100% soy milk
 - vi. Don't know - 100% two-percent milk
 - b. If two or more options are marked, each of the chosen food options (i.-v.) will be added at $1/n$ where n is the number of food options chosen. Note that in this case "Don't know" is not considered a "food" option.
- 3. If a frequency is given for B1 or B2, but for any reason adjustment question (A8) is missing, the value **defaults to the "2% milk" option**. An error is reported if the answer to the "yes/no" part of the question is "Yes."

Type of salad dressing used (A9)

1. Adjusts the following FFQ line item: Salad Dressing (all types) (F57)
2. Question options:
 - a. If only one option is marked:
 - i. Regular - 100% regular dressing
 - ii. low or reduced fat - 100% low or reduced fat dressing
 - iii. Fat free or nonfat - 100% fat-free or nonfat dressing
 - b. If two options are marked, each of the chosen food options (i.-iii.) will be added at $1/n$ where n is the number of food options chosen.
3. If a frequency is given for F57, but for any reason adjustment question (A9) is missing, the value **defaults to 50% "regular dressing" and 50% "low or reduced fat dressing"**. An error is reported if the answer to the "yes/no" part of the question is "Yes."

Type of mayonnaise used (A10)

1. Adjusts the following FFQ line item: Mayonnaise and mayonnaise-type spreads (F86)
2. Question options:
 - a. If only one option is marked:
 - i. Regular - 100% regular fat mayonnaise
 - ii. Low or reduced fat - 100% diet mayonnaise
 - iii. Fat free or nonfat - 100% fat-free mayonnaise
 - b. If two options are marked, each of the chosen food options (i.-iii.) will be added at $1/n$ where n is the number of food options chosen.
3. Frequency is given for F86, but for any reason adjustment question (A10) is missing, the value **defaults to the "Regular" option**. An error is reported if the answer to the "yes/no" part of the question is "Yes."

Low fat cookies and cakes (A11)

1. Adjusts the following FFQ line item: Cookies and Cakes (F101)
2. Question options:
 - a. Almost always - 100% lowfat, 0% regular
 - b. Often - 75% lowfat, 25% regular
 - c. Sometimes - 50% lowfat, 50% regular
 - d. Rarely - 25% lowfat, 75% regular
 - e. Never - 0% lowfat, 100% regular
3. If a frequency is given for F101, but for any reason adjustment question (A11) is missing, the value **defaults to the "Rarely" option**. An error is reported if the answer to the "yes/no" part of the question is "Yes."

Type of fat used when cooking vegetables or frying meat (A12)

1. Adjusts the following FFQ line item: summary question 1-fats used in food preparation (S1).
2. Question options:
 - a. If only one option is marked:
 - i. Butter - 100% Butter
 - ii. Stick margarine - 100% Stick margarine
 - iii. Tub or liquid margarine - 100% Tub or liquid margarine

- iv. Lowfat margarine - 100% Lowfat margarine
 - v. Olive oil - 100% Olive oil
 - vi. Canola oil - 100% Canola oil
 - vii. Other oils - 100% Soybean/cottonseed oil
 - viii. Lard, bacon fat or meat drippings - 100% Lard
 - ix. Didn't use fat or used non-stick spray - If necessary to adjust line item (i.e. some fat use was reported in S1) then 50% Olive oil, 50% Canola oil
- b. If two or more options are marked, each of the chosen food options (i.-viii.) will be added at $1/n$ where n is the number of food options chosen. Note that in this case "Didn't use fat" is not considered a "food" option.
3. If a frequency is given for S1, but for any reason adjustment question (A12) is missing, the value **defaults to 50% Olive oil and 50% Canola oil**. In addition, an error is reported.

Type of fat added at the table on breads, vegetables or potatoes (A13)

1. Adjusts the following FFQ line items: Butter or margarine on breads, hot cereals, pancakes, etc (F9) and Butter, margarine, sour cream and other fat added to vegetables, potatoes and rice (F81)
2. Question options:
- a. If only one option is marked:
 - i. Butter - 100% Butter
 - ii. Stick margarine - 100% Stick margarine
 - iii. Tub or liquid margarine - 100% Tub or liquid margarine
 - iv. Lowfat margarine - 100% Lowfat margarine
 - v. Olive oil - 100% Olive oil
 - vi. Sour cream - 100% Sour cream
 - vii. Didn't use fat - If necessary to adjust line item (i.e. some fat use reported in F9 or F81) then 50% Butter, 50% Tub margarine
 - b. If two or more options are marked, each of the chosen food options (i.-vi.) will be added at $1/n$ where n is the number of food options chosen. Note that in this case "Didn't use fat" is not considered a "food" option.
3. If a frequency is given for F9 or F81, but for any reason adjustment question (A13) is missing, the value **defaults to 50% "Butter" and 50% "Tub or liquid margarine"**. In addition, an error is reported.

Frequency and Portion Formats

(1) Regular food frequencies

Code	Label	Annual Servings
1	Never or less than once per month	0
2	1 per month	12
3	2 to 3 per month	28
4	1 per week	52
5	2 per week	104
6	3 to 4 per week	180
7	5 to 6 per week	264
8	1 per day	365
9	2 + per day	730

(2) Seasonal food frequencies

Code	Label	Annual Servings
1	Never or less than once per month	0
2	1 per month	4
3	2 to 3 per month	9
4	1 per week	17
5	2 per week	35
6	3 to 4 per week	60
7	5 to 6 per week	88
8	1 per day	122
9	2 + per day	243

(3) Beverage frequencies

Code	Label	Annual Servings
1	Never or less than once per month	0
2	1-3 per month	22
3	1 per week	52
4	2-4 per week	144
5	5-6 per week	276
6	1 per day	365
7	2-3 per day	852
8	4-5 per day	1560
9	6+ per day	2190

(4) Portion size

Code	Label	Serving Ratio
1	S	0.5
2	M	1.0
3	L	1.5

(5) Fat summary frequencies

Code	Label	Annual Servings
1	Less than once per week	12
2	1-2 per week	75
3	3-4 per week	168
4	5-6 per week	264
5	1 per day	365
6	2 per day	730
7	3 per day	1095
8	4 per day	1460
9	5+ per day	1825

(6) Vegetable summary frequencies

Code	Label	Annual Servings
1	Less than once per week	12
2	1-2 per week	96
3	3-4 per week	180
4	5-6 per week	276
5	1 per day	365
6	2 per day	730
7	3 per day	1095
8	4 per day	1460
9	5+ per day	1825

(7) Fruit summary frequencies

Code	Label	Annual Servings
1	Less than once per week	12
2	1-2 per week	89
3	3-4 per week	180
4	5-6 per week	276
5	1 per day	365
6	2 per day	730
7	3 per day	1095
8	4 per day	1460
9	5+ per day	1825

Fixed-rate Split Frequency Line Items

The following line items on the FFQ are split between two foods at a fixed rate.

1. Carrots are split into 50 percent raw carrots and 50 percent cooked carrots
2. Apricots are split into 80 percent fresh or canned apricots and 20 percent dried apricots

Default for Summary Question 1

If summary question 1 is missing or bad, the "1-2 per week" option is assigned.

Vegetable and Fruit Summary Adjustments

(1) Vegetables

Summary question 2 is used to adjust the consumption frequency of a number of vegetable items. A ratio (calculated using the summary question and the vegetable frequency items) is applied to each of the items resulting in revised consumption for the items.

The following vegetable items are included:

1. Carrots (50 percent-representing the cooked portion)
2. Broccoli
3. Cauliflower, cabbage and Brussels sprouts
4. Green or string beans
5. Green peas
6. Corn and hominy
7. Summer squash and zucchini
8. Winter squash such as acorn, butternut and pumpkin
9. Yams and sweet potatoes
10. Cooked greens such as spinach, mustard greens and collards

How to calculate the ratio:

ratio = (frequency as answered in summary question 2) / (sum of frequencies in items above)

Note that portion sizes are not included in the calculation of the denominator.

Adjustments to the ratio:

1. If summary question 2 is missing or bad the following **default ratios** are used:
 - a. for MSEL: **0.90**
 - b. for GSEL: **0.95****
2. **Upper and lower limits** are imposed on the ratio. These are:
 - a. for both MSEL and GSEL: **min 0.25, max 4.00**

**This is an average of the men's (0.90) and women's (1.00) default ratios for the VITAL FFQ.

(2) Fruits

Summary question 3 is used to adjust the consumption frequency of a number of fruit items. A ratio (calculated using the summary question and the fruit frequency items) is applied to each of the items resulting in revised consumption for the items.

The following fruit items are included:

1. Apples, applesauce and pears
2. Bananas
3. Peaches, nectarines and plums
4. Apricots (80 percent-representing the fresh and canned portion)

5. Oranges, grapefruit and tangerines (not juice)
6. Berries such as strawberries and blueberries
7. Cantaloupe, orange melon and mango (in season)
8. Watermelon and red melon
9. Any other fruit such as grapes, fruit cocktail, pineapple and cherries

How to calculate the ratio:

ratio = (frequency as answered in summary question 3) / (sum of frequencies in items above)

Note that portion sizes are not included in the calculation of the denominator.

Adjustments to the ratio:

1. If summary question 3 is missing or bad the following default ratios are used:
 - a. for MSEL: 0.55
 - b. for GSEL: 0.60**
2. Upper and lower limits are imposed on the ratio. These are:
 - a. for both MSEL and GSEL: min 0.25, max 2.50

**This is an average of the men's (0.55) and women's (0.65) default ratios for the VITAL FFQ.

Daily Consumption of Vegetables and Fruits

The variables VEG5DAY and FRT5DAY hold the daily consumption of vegetables and fruit per day calculated using the "5-A-Day" method. These values are missing if summary questions on usual servings of vegetables and fruit are missing. The variables VEGSUMM and FRTSUMM hold daily consumption of vegetables and fruit using the "summation" method, which is the sum of serving across all vegetable and fruit items without adjustments. See Kristal AR, Vizenor NC, Patterson RE, Shattuck AL, McLerran D. Precision and bias of food frequency based measures of fruit and vegetable intakes. Cancer Epidemiology Biomarkers & Prevention 9:939-944, 2000. for more details on these methods.

(1) VEG5DAY Calculation

If summary question 2 is answered:

VEG5DAY =
sumfrq2 +
fcon56 (Green salad) +
fcon58 (Fresh tomatoes) +
0.5 * fcon59 (Carrots) +
0.5 * fcon60 (Green peppers and green chilies) +
0.5 * fcon61 (Red peppers and red chilies) +
fcon75 (Potatoes, not fried) +
fcon78 (Coleslaw) +
bcon6 (Tomato juice, V8 and other vegetable juice)

If summary question 2 is missing then VEG5DAY will be missing. Note that: (1) the "con" variables are consumption variables and have the portion size factor (0.5, 1.0, or 1.5) applied to them, (2) the first character ("f" or "b") indicates whether the item is a food or beverage, and (3) the number represents where the item is in the FFQ.

(2) FRT5DAY Calculation

If summary question 3 is answered:

FRT5DAY =
sumfrq3 +
0.2 * fcon90 (Apricots) +
fcon91 (Dried fruit) +
bcon7 (Orange juice and grapefruit juice) +
bcon8 (Other 100% fruit juice)

If summary question 3 is missing then FRT5DAY will be missing. Note that: (1) the "con" variables are consumption variables and have the portion size factor (0.5, 1.0, or 1.5) applied to them, (2) the first character ("f" or "b") indicates whether the item is a food or beverage, and (3) the number represents where the item is in the FFQ.

(3) VEGSUMM Calculation

VEGSUMM=

fcon56 (Green salad) +
fcon58 (Fresh tomatoes) +
fcon59 (Carrots) +
0.5 * fcon60 (Green peppers and green chilies) +
0.5 * fcon61 (Red peppers and red chilies) +
fcon62 (Broccoli) +
fcon63 (Cauliflower, cabbage and Brussels sprouts) +
fcon64 (Green or string beans) +
fcon65 (Green peas) +
fcon66 (Corn and hominy) +
fcon67 (Summer squash, zucchini) +
fcon68 (Winter squash) +
fcon69 (Yams and sweet potatoes) +
fcon70 (Cooked greens) +
fcon75 (Potatoes, not fried) +
fcon78 (Coleslaw) +
bcon6 (Tomato juice, V8 and other vegetable juice)

(4) FRTSUMM Calculation

FRTSUMM =

fcon87 (Apples, applesauce and pears) +
fcon88 (Bananas) +
fcon89 (Peaches, nectarines and plums) +
fcon90 (Apricots) +
fcon91 (Dried fruit) +
fcon92 (Oranges, grapefruit and tangerines) +
fcon93 (Berries) +
fcon94 (Cantaloupe, orange melon and mango) +
fcon95 (Watermelon and red melon) +
fcon96 (Any other fruit) +
bcon7 (Orange juice and grapefruit juice) +
bcon8 (Other 100% fruit juice)

Batch Output

The batch output is the group of files created by the processing of a single batch or a cumulative run. These files are zipped into a single file with a name of the form abc_nnn_yyyy_MM_dd_hhmm.zip where "abc" is the three-letter project code, "nnn" is the batch number, and yyyy_MM_dd_hhmm is the processing date and time. The cumulative run has the name abc_FFFF_yyyy_MM_dd_hhmm.zip where "FFFF" is the form name (e.g. GSEL).

The table below describes the files included in the batch output. Note that all datasets are provided in both SAS and SPSS formats. One dataset, the nutrient analysis dataset, is provided in Excel and tab-delimited text formats as well.

abc = three-letter project code
 nnn = batch number (e.g. 001, 002)
 FFFF = form name (e.g. GSEL, MSEL)
 yyyy_MM_dd_hhmm = date and time processed

Individual Batch Output

Filename	Contents
abc_nnn_yyyy_MM_dd_hhmm_nut.sas7bdat (SAS) abc_nnn_yyyy_MM_dd_hhmm_nut.sav (SPSS) abc_nnn_yyyy_MM_dd_hhmm_nut.xls (Excel) abc_nnn_yyyy_MM_dd_hhmm_nut.txt (Text)	Daily nutrient intake dataset - includes a record for each participant in a batch. Its fields contain estimated daily intake of more than 130 different nutrients.
abc_nnn_yyyy_MM_dd_hhmm_nutfmt.xls (Excel) abc_nnn_yyyy_MM_dd_hhmm_nutfmt.txt (Text)	List of variables in the daily nutrient intake dataset along with their labels and variable types.
abc_nnn_yyyy_MM_dd_hhmm_survey.sas7bdat (SAS) abc_nnn_yyyy_MM_dd_hhmm_survey.sav (SPSS)	Survey dataset - includes formatted questionnaire responses.
abc_nnn_yyyy_MM_dd_hhmm_serving.sas7bdat (SAS) abc_nnn_yyyy_MM_dd_hhmm_serving.sav (SPSS)	Serving dataset - provides number of annual medium servings per food item per person.
abc_nnn_yyyy_MM_dd_hhmm_error.sas7bdat (SAS) abc_nnn_yyyy_MM_dd_hhmm_error.sav (SPSS)	Error dataset – includes summary error information for each participant
FFFF_food.sas7bdat (SAS) FFFF_food.sav (SPSS) FFFF_food.xls (Excel) FFFF_food.txt (Text)	List of the food items for the FFQ along with their IDs and serving sizes.
formats.sas7bcat (SAS)	SAS formats file which records special formats for the above SAS datasets
abc_nnn_yyyy_MM_dd_hhmm.err	Error report - text file that details the errors for each participant in the batch
readme.txt	Provides information about the contents of the output files

Cumulative Batch Output

The cumulative output includes all batches processed up to the time the cumulative run occurs. So, for example, the cumulative run at the time batch 006 is run will include batches 001, 002, 003, 004, 005, and 006.

Filename	Contents
abc_FFFF_yyyy_MM_dd_hhmm_nut.sas7bdat (SAS) abc_FFFF_yyyy_MM_dd_hhmm_nut.sav (SPSS) abc_FFFF_yyyy_MM_dd_hhmm_nut.xls (Excel) abc_FFFF_yyyy_MM_dd_hhmm_nut.txt (Text)	Daily nutrient intake dataset - includes a record for each FFQ in a batch. Its fields contain estimated daily intake of more than 130 different nutrients.
abc_FFFF_yyyy_MM_dd_hhmm_nutfmt.xls (Excel) abc_FFFF_yyyy_MM_dd_hhmm_nutfmt.txt (Text)	List of variables in the daily nutrient intake dataset along with their labels and variable types.
abc_FFFF_yyyy_MM_dd_hhmm_survey.sas7bdat (SAS) abc_FFFF_yyyy_MM_dd_hhmm_survey.sav (SPSS)	Survey dataset - includes formatted questionnaire responses.
abc_FFFF_yyyy_MM_dd_hhmm_serving.sas7bdat (SAS) abc_FFFF_yyyy_MM_dd_hhmm_serving.sav (SPSS)	Serving dataset - provides number of annual medium servings per food item per person.
abc_FFFF_yyyy_MM_dd_hhmm_error.sas7bdat (SAS) abc_FFFF_yyyy_MM_dd_hhmm_error.sav (SPSS)	Error dataset - includes summary error information for each FFQ
FFFF_food.sas7bdat (SAS) FFFF_food.sav (SPSS) FFFF_food.xls (Excel) FFFF_food.txt (Text)	List of the food items for the FFQ along with their IDs and serving sizes.
formats.sas7bcat (SAS)	SAS formats file which records special formats for the above SAS datasets
abc_FFFF_yyyy_MM_dd_hhmm.err	Error report - text file that details the errors for each FFQ.
readme.txt	Provides information about the contents of the output files
abcscan.lst	Text file that lists the batches included in a cumulative run. Only provided for cumulative output.

Variables in Daily Nutrient Intake Dataset

Variable Name	Variable Label	Units/day
Primary Energy Sources		
CALORIES	Energy	Kcal
JOULES	Energy	Kj
FAT	Total Fat	Gm
CARBO	Total Carbohydrate	Gm
PROTEIN	Total Protein	Gm
PROTANIM	Animal Protein	Gm
PROTVEG	Vegetable Protein	Gm
ALCOHOL	Alcohol	Gm
Fat and Cholesterol		
CHOLEST	Cholesterol	Mg
SFATOT	Total Saturated Fatty Acid (SFA)	Gm
MFATOT	Total Monounsaturated Fatty Acids (MUFA)	Gm
PFATOT	Total Polyunsaturated Fatty Acids (PUFA)	Gm
TOTALTFA	Total Trans-Fatty Acids	Gm
Carbohydrates		
FRUCTOSE	Fructose	Gm
GALACTOS	Galactose	Gm
GLUCOSE	Glucose	Gm
LACTOSE	Lactose	Gm
MALTOSE	Maltose	Gm
SUCROSE	Sucrose	Gm
TOTSUGAR	Total Sugars	Gm
ADDSUGAR	Added Sugars	Gm
STARCH	Starch	Gm
Glycemic Load		
GLAC	Glycemic Load based on available carbohydrate	
GLTC	Glycemic Load based on total carbohydrate	

Variable Name	Variable Label	Units/day
Fiber		
FIBER	Total Dietary Fiber	Gm
FIBH2O	Water Soluble Dietary Fiber	Gm
FIBINSO	Insoluble Dietary Fiber	Gm
PECTINS	Pectins	Gm
Vitamins		
VITA_RE	Total Vitamin A (Retinol Equivalents)	RE
VITA_IU	Total Vitamin A (International Units)	IU
VITA_RAE	Total Vitamin A (Retinol Activity Equivalents)	RAE
RETINOL	Retinol	Mcg
VITD	Vitamin D (calciferol)	Mcg
VITE_IU	Vitamin E (International Units)	IU
ALPHTOCE	Total Alpha-Tocopherol Equivalents (Total Vitamin E)	Mg
ALPHTOCO	Alpha-Tocopherol	Mg
NATOCO	Natural Alpha-Tocopherol (RRR-alpha-tocopherol or d-alpha-tocopherol)	Mg
SATOCO	Synthetic Alpha-Tocopherol (all rac-alpha-tocopherol or dl-alpha-tocopherol)	Mg
BETATOCO	Beta-Tocopherol	Mg
GAMMTOCO	Gamma-Tocopherol	Mg
DELTTOCO	Delta-Tocopherol	Mg
VITK	Vitamin K (phylloquinone)	Mcg
VITC	Vitamin C (ascorbic acid)	Mg
THIAMIN	Thiamin (vitamin B1)	Mg
RIBOFLA	Riboflavin (vitamin B2)	Mg
NIACIN	Niacin (vitamin B3)	Mg
NIACINEQ	Niacin Equivalents	Mg
PANTOTHE	Pantothenic Acid	Mg
VITB6	Vitamin B6 (pyridoxine, pyridoxyl, and pyridoxamine)	Mg
TOTFOLAT	Total Folate	Mcg
FOL_DEQV	Folate Dietary Equivalents	Mcg

Variable Name	Variable Label	Units/day
FOL_NAT	Folate Natural (food folate)	Mcg
FOL_SYN	Folate Synthetic (folic acid)	Mcg
VITB12	Vitamin B12 (cobalamin)	Mcg
Carotenoids		
BETACAR	Beta-Carotene (provitamin A carotenoid)	Mcg
ALPHACAR	Alpha-Carotene (provitamin A carotenoid)	Mcg
BETACRYP	Beta-Cryptoxanthin (provitamin A carotenoid)	Mcg
LUTZEAX	Lutein + Zeaxanthin	Mcg
LYCOPENE	Lycopene	Mcg
Minerals		
CALCIUM	Calcium	Mg
PHOSPHOR	Phosphorus	Mg
MAGNES	Magnesium	Mg
IRON	Iron	Mg
ZINC	Zinc	Mg
COPPER	Copper	Mg
SELENIUM	Selenium	Mcg
SODIUM	Sodium	Mg
POTASS	Potassium	Mg
MANGAN	Manganese	Mg
Fatty Acids		
SFA40	SFA 4:0 (butyric acid)	Gm
SFA60	SFA 6:0 (caproic acid)	Gm
SFA80	SFA 8:0 (caprylic acid)	Gm
SFA100	SFA 10:0 (capric acid)	Gm
SFA120	SFA 12:0 (lauric acid)	Gm
SFA140	SFA 14:0 (myristic acid)	Gm
SFA160	SFA 16:0 (palmitic acid)	Gm
SFA170	SFA 17:0 (margaric acid)	Gm
SFA180	SFA 18:0 (stearic acid)	Gm

Variable Name	Variable Label	Units/day
SFA200	SFA 20:0 (arachidic acid)	Gm
SFA220	SFA 22:0 (behenic acid)	Gm
MFA141	MFA 14:1 (myristoleic acid)	Gm
MFA161	MFA 16:1 (palmitoleic acid)	Gm
MFA181	MFA 18:1 (oleic acid)	gm
MFA201	MFA 20:1 (gadoleic acid)	gm
MFA221	MFA 22:1 (erucic acid)	gm
PFA182	PFA 18:2 (linoleic acid)	gm
PFA183	PFA 18:3 (linolenic acid)	gm
PFA184	PFA 18:4 (parinaric acid)	gm
PFA204	PFA 20:4 (arachidonic acid)	gm
PFA205	PFA 20:5 (eicosapentaenoic acid [EPA])	gm
PFA225	PFA 22:5 (docosapentaenoic acid [DPA])	gm
PFA226	PFA 22:6 (docosahexaenoic acid [DHA])	gm
TFA161T	TRANS 16:1 (trans-hexadecenoic acid)	gm
TFA181T	TRANS 18:1 (trans-octadecenoic acid [elaidic acid])	gm
TFA182T	TRANS 18:2 (trans-octadecadienoic acid [linolelaidic acid]); includes c-t, t-c, t-t)	gm
OMEGA3	Omega-3 Fatty Acids	gm
Amino Acids		
TRYPTOPH	Tryptophan	gm
THREONIN	Threonine	gm
ISOLEUC	Isoleucine	gm
LEUCINE	Leucine	gm
LYSINE	Lysine	gm
METHION	Methionine	gm
CYSTINE	Cystine	gm
PHENYLAL	Phenylalanine	gm
TYROSINE	Tyrosine	gm
VALINE	Valine	gm

Variable Name	Variable Label	Units/day
ARGININE	Arginine	gm
HISTIDIN	Histidine	gm
ALANINE	Alanine	gm
ASPARTIC	Aspartic Acid	gm
GLUTAMIC	Glutamic Acid	gm
GLYCINE	Glycine	gm
PROLINE	Proline	gm
SERINE	Serine	gm
Isoflavones (and related)		
DAIDZEIN	Daidzein	mg
GENISTN	Genistein	mg
GLYCITN	Glycitein	mg
COUMEST	Coumestrol	mg
BIOCHANA	Biochanin A	mg
FORMONTN	Formononetin	mg
Sugar Alcohols (polyvols)		
ERYTHRITOL	Erythritol	g
INOSITOL	Inositol	g
ISOMALT	Isomalt	g
LACTITOL	Lactitol	g
MALTITOL	Maltitol	g
MANNITOL	Mannitol	g
PINITOL	Pinitol	g
SORBITOL	Sorbitol	g
XYLITOL	Xylitol	g
Other		
ASPARTAM	Aspartame	mg
SACCHAR	Saccharin	mg
CAFFEINE	Caffeine	mg
PHYTIC	Phytic Acid	mg

Variable Name	Variable Label	Units/day
OCALIC	Oxalic Acid	mg
METHHIS3	3-Methylhistidine	mg
SUCPOLY	Sucrose Polyester	gm
SUCRLOSE	Sucralose	mg
CHOLINE	Choline	mg
BETAINE	Betaine	mg
ACESUPOT	Acesulfame Potassium	mg
ASH	Ash	gm
WATER	Water	gm
GRAMS	Gram Amount (weight)	gm
Summary Variables		
FRT5DAY	Daily Fruit Consumption (5-A-Day Method)	
FRTSUMM	Daily Fruit Consumption (Summation Method)	
VEG5DAY	Daily Vegetable Consumption (5-A-Day Method)	
VEGSUMM	Daily Vegetable Consumption (Summation Method)	
Document Variables		
BATCHID	Batch ID	
BCODEID	Barcode ID (if applicable)	
PROCDATE	Processing Date	
RECNO	Record Number	
SRVID	Survey Identification	
VERSDB	Food Database Version Number	
VERSFFQ	FFQ Algorithm Version Number	
VERSNDS	NDS Food Database Version Number	

Alphabetical List of Variables in Daily Nutrient Intake Dataset

Variable Name	Variable Label
ACESUPOT	Acesulfame Potassium (mg)
ADDSUGAR	Added Sugars (gm)
ALANINE	Alanine (gm)
ALCOHOL	Alcohol (gm)
ALPHACAR	Alpha-Carotene (mcg)
ALPHTOCE	Total alpha-toc eq (mg)
ALPHTOCO	Alpha-Tocopherol (mg)
ARGININE	Arginine (gm)
ASH	Ash (gm)
ASPARTAM	Aspartame (mg)
ASPARTIC	Aspartic acid (gm)
BATCHID	Batch ID
BCODEID	Barcode ID (if applicable)
BETACAR	Beta-Carotene (mcg)
BETACRYP	Beta-Cryptoxantin (mcg)
BETAINE	Betaine (mg)
BETATOCO	Beta-Tocopherol (mg)
BIOCHANA	Biochanin A (mg)
CAFFEINE	Caffeine (mg)
CALCIUM	Calcium (mg)
CALORIES	Energy (kcal)
CARBO	Total Carbohydrate (gm)
CHOLEST	Cholesterol (mg)
CHOLINE	Choline (mg)
COPPER	Copper (mg)
COUMEST	Coumestrol (mg)
CYSTINE	Cystine (gm)
DAIDZEIN	Daidzein (mg)
DATE	Date on form

Variable Name	Variable Label
DELTTOCO	Delta-Tocopherol (mg)
ERYTHRITOL	Erythritol (g)
FAT	Total Fat (gm)
FIBER	Dietary Fiber (gm)
FIBH2O	Water Sol Dietary Fiber (gm)
FIBINSO	Insoluble Dietary Fiber (gm)
FOL_DEQV	Folate-dietary equivalents (mcg)
FOL_NAT	Folate-natural (food folate) (mcg)
FOL_SYN	Folate-synthetic (folic acid) (mcg)
FORMONTN	Formononetin (mg)
FRT5DAY	Daily Fruit Servings (5-A-Day method)
FRTSUMM	Daily Fruit Servings (Summation method)
FRUCTOSE	Fructose (gm)
FRT5DAY	Daily Fruit Consump (5-A-Day Method)
FRTSUMM	Daily Fruit Consump (Summation Method)
GALACTOS	Galactose (gm)
GAMMTOCO	Gamma-Tocopherol (mg)
GENISTN	Genistein (mg)
GLAC	Glycemic Load based on available carbohydrate
GLTC	Glycemic Load based on total carbohydrate
GLUCOSE	Glucose (gm)
GLUTAMIC	Glutamic acid (gm)
GLYCINE	Glycine (gm)
GLYCITN	Glycitein (mg)
GRAMS	Gram Amount
HISTIDIN	Histidine (gm)
IDNUM	ID Number from bubbles on form
INOSITOL	Inositol (g)
IRON	Iron (mg)
ISOLEUC	Isoleucine (gm)
ISOMALT	Isomalt (g)

Variable Name	Variable Label
JOULES	Energy (kj)
LACTITOL	Lactitol (g)
LACTOSE	Lactose (gm)
LEUCINE	Leucine (gm)
LUTZEAX	Lutein + Zeaxanthin (mcg)
LYCOPENE	Lycopene (mcg)
LYSINE	Lysine (gm)
MAGNES	Magnesium (mg)
MALTITOL	Maltitol (g)
MALTOSE	Maltose (gm)
MANGAN	Manganese (mg)
MANNITOL	Mannitol (g)
METHHIS3	3-Methylhistidine (mg)
METHION	Methionine (gm)
MFA141	MFA 14:1 (gm)
MFA161	MFA 16:1 (gm)
MFA181	MFA 18:1, oleic acid (gm)
MFA201	MFA 20:1 (gm)
MFA221	MFA 22:1 (gm)
MFATOT	Total MFA (gm)
NATOCO	Natural Alpha-Tocopherol (RRR-alpha-tocopherol or d-alpha-tocopherol) (mg)
NIACIN	Niacin (mg)
NIACINEQ	Niacin Equivalents (mg)
OMEGA3	Omega-3 Fatty Acids (gm)
OXALIC	Oxalic Acid (mg)
PANTOTHE	Pantothenic Acid (mg)
PECTINS	Pectins (gm)
PFA182	PFA 18:2, linoleic acid (gm)
PFA183	PFA 18:3, linolenic acid (gm)
PFA184	PFA 18:4 (gm)

Variable Name	Variable Label
PFA204	PFA 20:4 (gm)
PFA205	PFA 20:5, EPA (gm)
PFA225	PFA 22:5 (gm)
PFA226	PFA 22:6, DHA (gm)
PFATOT	Total PFA (gm)
PHENYLAL	Phenylalanine (gm)
PHOSPHOR	Phosphorous (mg)
PHYTIC	Phytic Acid (mg)
PINITOL	Pinitol (g)
POTASS	Potassium (mg)
PROCDATE	Processing Date
PROLINE	Proline (gm)
PROTANIM	Animal protein (gm)
PROTEIN	Protein (gm)
PROTVEG	Vegetable protein (gm)
RECNO	Record Number
RETINOL	Retinol (mcg)
RIBOFLA	Riboflavin (mg)
SACCHAR	Saccharin (mg)
SATOCO	Synthetic Alpha-Tocopherol (all rac-alpha-tocopherol or dl-alpha-tocopherol) (mg)
SELENIUM	Selenium (mcg)
SERINE	Serine (gm)
SFA40	SFA 4:0 (gm)
SFA60	SFA 6:0 (gm)
SFA80	SFA 8:0 (gm)
SFA100	SFA 10:0 (gm)
SFA120	SFA 12:0 (gm)
SFA140	SFA 14:0 (gm)
SFA160	SFA 16:0, palmitic acid (gm)
SFA170	SFA 17:0 (gm)

Variable Name	Variable Label
SFA180	SFA 18:0, stearic acid (gm)
SFA200	SFA 20:0 (gm)
SFA220	SFA 22:0 (gm)
SFATOT	Total SFA (gm)
SODIUM	Sodium (mg)
SORBITOL	Sorbitol (g)
SRVID	Survey Identification
STARCH	Starch (gm)
SUCPOLY	Sucrose polyester (gm)
SUCRLOSE	Sucralose (mg)
SUCROSE	Sucrose (gm)
TFA161T	TRANS 161 (gm)
TFA181T	TRANS 181 (gm)
TFA182T	TRANS 182 (gm)
THIAMIN	Thiamin (mg)
THREONIN	Threonine (gm)
TOTALTFA	Total Trans-Fatty Acids (gm)
TOTFOLAT	Total Folate (mcg)
TOTSUGAR	Total Sugar (gm)
TRYPTOPH	Tryptophan (gm)
TYROSINE	Tyrosine (gm)
VALINE	Valine (gm)
VEG5DAY	Daily Vegetable Consump (5-A-Day Method)
VEGSUMM	Daily Vegetable Consump (Summation Meth)
VERSDB	xSEL Food Database Version Number
VERSFFQ	xSEL FFQ Algorithm Version Number
VERSNDS	NDS Food Database Version Number
VITA_IU	Total Vit A (international units)
VITA_RAE	Total Vit A (retinol activity equiv)
VITA_RE	Total Vit A (retinol equiv)
VITB12	Vitamin B12 (mcg)

Variable Name	Variable Label
VITB6	Vitamin B6 (mg)
VITC	Vitamin C (mg)
VITD	Vitamin D (mcg)
VITE_IU	Vitamin E (international units)
VITK	Vitamin K (mcg)
WATER	Water (gm)
XYLITOL	Xylitol (g)
ZINC	Zinc (mg)

List of Variables in Survey Dataset

Variable names for adjustment question responses begin with the prefix "ADJ" and are followed by a number indicating the question number in the survey associated with the response. Variables for responses to the second part of an adjustment question have an "A" in their name (e.g. ADJ1A). If the adjustment question is of the "select one or more" type there will be a variable for each possible response. For example, there are three variables for the second part of adjustment question 9: ADJ9A_1, ADJ9A_2, ADJ9A_3.

The possible values for "yes/no" adjustment questions are: 1 = "yes" and 0 = "no"; for "almost always...never" type adjustment questions: 1.00 = "almost always", 0.75 = "often", 0.50 = "sometimes", 0.25 = "rarely", and "0.00" never; and for "select one or more" type adjustment questions: 1 = selected and missing = not selected.

The variable names for food frequency question responses begin with the prefix "FFRQ" (for the frequency) and "FPOR" (for the portion size) and are followed by a number representing the order of the item on the questionnaire. The values are based on the [frequency and portion size formats \(1,2 and 4\)](#) above.

The variable names for beverage frequency question responses begin with the prefix "BFRQ" (for the frequency) and "BPOR" (for the portion size) and are followed by a number representing the order of the item on the questionnaire. The values are based on the [beverage frequency and portion size formats \(3 and 4\)](#) above.

The variable names for summary question responses begin with the prefix "SUMFRQ" and are followed by a number corresponding with the order of the summary question on the questionnaire. The values are based on the [frequency formats \(5 through 7\)](#) above.

The following values apply to most variables: "." = missing, "-9901" = Bad scanner data, and "-9902" = Illegal multiple responses.

The portion variables have the medium serving size for the GSEL FFQ in brackets. Note that the MSEL has different medium serving sizes for some food items.

Variable Name	Variable Label
SCAN_DT	Scan date
SCAN_TM	Scan time
SRVID	Book ID 1
IDNUM	Identification Number
ADJ1	1. Did you eat chicken or turkey?
ADJ1A	1.1 When you ate chicken or turkey, how often did you eat the skin?
ADJ2	2. Did you eat beef, pork, ham or lamb?
ADJ2A	2.1 When you ate beef, pork, ham or lamb, how often did you eat the fat?
ADJ3	3. Did you eat hamburger or other ground meat?
ADJ3A_1	3.1 When you ate hamburger or other ground meat, was it usually-- (Mark one or two.) [1 => Regular]
ADJ3A_2	3.1 When you ate hamburger or other ground meat, was it usually-- (Mark one or two.) [2 => Lean]
ADJ3A_3	3.1 When you ate hamburger or other ground meat, was it usually-- (Mark one or two.) [3 => Extra lean]
ADJ3A_4	3.1 When you ate hamburger or other ground meat, was it usually-- (Mark one or two.) [4 => Ground chicken or turkey]
ADJ3A_5	3.1 When you ate hamburger or other ground meat, was it usually-- (Mark one or two.) [5 => Dont know]
ADJ4	4. Did you drink orange, grapefruit or other fruit juices?
ADJ4A_1	4.1 Were any of these vitamins or minerals added (specially fortified) to the juices you drank? (Mark all that apply.) [1 => Extra Vitamin C]
ADJ4A_2	4.1 Were any of these vitamins or minerals added (specially fortified) to the juices you drank? (Mark all that apply.) [2 => Vitamin E]
ADJ4A_3	4.1 Were any of these vitamins or minerals added (specially fortified) to the juices you drank? (Mark all that apply.) [3 => Calcium]
ADJ4A_4	4.1 Were any of these vitamins or minerals added (specially fortified) to the juices you drank? (Mark all that apply.) [4 => None]
ADJ4A_5	4.1 Were any of these vitamins or minerals added (specially fortified) to the juices you drank? (Mark all that apply.) [5 => Dont know]
ADJ5	5. Did you eat cold cereals?

Variable Name	Variable Label
ADJ5A_1	5.1 When you ate cold cereals, what type did you usually eat? (Mark one or two.) [1 => Highly fortified cereals (100% of daily values) such as Total, Smart Start, and Product 19]
ADJ5A_2	5.1 When you ate cold cereals, what type did you usually eat? (Mark one or two.) [2 => High-fiber or bran cereals, such as Raison Bran and All Bran]
ADJ5A_3	5.1 When you ate cold cereals, what type did you usually eat? (Mark one or two.) [3 => Regular granola (not lowfat)]
ADJ5A_4	5.1 When you ate cold cereals, what type did you usually eat? (Mark one or two.) [4 => All other cereals such as lowfat granola, Cheerios, Corn Flakes and Frosted Flakes]
ADJ6	6. Did you put milk (all types), cream or creamer on cereal?
ADJ6A_1	6.1 When you put milk, cream or creamer on cereal, what type did you usually use? (Mark one or two.) [1 => Cream or half and half]
ADJ6A_2	6.1 When you put milk, cream or creamer on cereal, what type did you usually use? (Mark one or two.) [2 => Whole milk]
ADJ6A_3	6.1 When you put milk, cream or creamer on cereal, what type did you usually use? (Mark one or two.) [3 => 2% milk]
ADJ6A_4	6.1 When you put milk, cream or creamer on cereal, what type did you usually use? (Mark one or two.) [4 => 1% milk or buttermilk]
ADJ6A_5	6.1 When you put milk, cream or creamer on cereal, what type did you usually use? (Mark one or two.) [5 => Non-fat or skim milk]
ADJ6A_6	6.1 When you put milk, cream or creamer on cereal, what type did you usually use? (Mark one or two.) [6 => Soy milk]
ADJ6A_7	6.1 When you put milk, cream or creamer on cereal, what type did you usually use? (Mark one or two.) [7 => Non-dairy creamer]
ADJ6A_8	6.1 When you put milk, cream or creamer on cereal, what type did you usually use? (Mark one or two.) [8 => Dont know]
ADJ7	7. Did you put milk (all types), cream or creamer in coffee or tea?
ADJ7A_1	7.1 When you put milk, cream or creamer in coffee or tea, what type did you usually use? (Mark one or two.) [1 => Cream or half and half]
ADJ7A_2	7.1 When you put milk, cream or creamer in coffee or tea, what type did you usually use? (Mark one or two.) [2 => Whole milk]
ADJ7A_3	7.1 When you put milk, cream or creamer in coffee or tea, what type did you usually use? (Mark one or two.) [3 => 2% milk]
ADJ7A_4	7.1 When you put milk, cream or creamer in coffee or tea, what type did you usually use? (Mark one or two.) [4 => 1% milk or buttermilk]

Variable Name	Variable Label
ADJ7A_5	7.1 When you put milk, cream or creamer in coffee or tea, what type did you usually use? (Mark one or two.) [5 => Non-fat or skim milk]
ADJ7A_6	7.1 When you put milk, cream or creamer in coffee or tea, what type did you usually use? (Mark one or two.) [6 => Soy milk]
ADJ7A_7	7.1 When you put milk, cream or creamer in coffee or tea, what type did you usually use? (Mark one or two.) [7 => Non-dairy creamer]
ADJ7A_8	7.1 When you put milk, cream or creamer in coffee or tea, what type did you usually use? (Mark one or two.) [8 => Dont know]
ADJ8	8. Did you drink milk (all types)? (Also include beverages made with milk, such as lattes, cappucinos, mochas, or hot chocolate.)
ADJ8A_1	8.1 When you drank milk or beverages made with milk, was it usually-- (Mark one or two.) [1 => Whole milk]
ADJ8A_2	8.1 When you drank milk or beverages made with milk, was it usually-- (Mark one or two.) [2 => 2% milk]
ADJ8A_3	8.1 When you drank milk or beverages made with milk, was it usually-- (Mark one or two.) [3 => 1% milk or buttermilk]
ADJ8A_4	8.1 When you drank milk or beverages made with milk, was it usually-- (Mark one or two.) [4 => Non-fat or skim milk]
ADJ8A_5	8.1 When you drank milk or beverages made with milk, was it usually-- (Mark one or two.) [5 => Soy milk]
ADJ8A_6	8.1 When you drank milk or beverages made with milk, was it usually-- (Mark one or two.) [6 => Dont know]
ADJ9	9. Did you use salad dressing?
ADJ9A_1	9.1 When you used salad dressing, what type did you usually use? (Mark one or two.) [1 => Regular, including oil and vinegar]
ADJ9A_2	9.1 When you used salad dressing, what type did you usually use? (Mark one or two.) [2 => Low or reduced fat]
ADJ9A_3	9.1 When you used salad dressing, what type did you usually use? (Mark one or two.) [3 => Fat free or nonfat]
ADJ10	10. Did you use mayonnaise?
ADJ10A_1	10.1 When you used mayonnaise, what type did you usually use? (Mark one or two.) [1 => Regular]
ADJ10A_2	10.1 When you used mayonnaise, what type did you usually use? (Mark one or two.) [2 => Low or reduced fat]
ADJ10A_3	10.1 When you used mayonnaise, what type did you usually use? (Mark one or two.) [3 => Fat free or nonfat]

Variable Name	Variable Label
ADJ11	11. Did you eat cookies or cakes?
ADJ11A	11.1 When you ate cookies or cakes, how often were they fig bars, SnackWells, angel food cakes, or other types of low or nonfat cookies or cakes?
ADJ12_1	12. In your household, what kinds of fat were usually used when cooking, for example to flavor vegetables or fry meat? (Mark up to four.) [1 => Butter]
ADJ12_2	12. In your household, what kinds of fat were usually used when cooking, for example to flavor vegetables or fry meat? (Mark up to four.) [2 => Stick margarine]
ADJ12_3	12. In your household, what kinds of fat were usually used when cooking, for example to flavor vegetables or fry meat? (Mark up to four.) [3 => Tub or liquid margarine]
ADJ12_4	12. In your household, what kinds of fat were usually used when cooking, for example to flavor vegetables or fry meat? (Mark up to four.) [4 => Lowfat margarine]
ADJ12_5	12. In your household, what kinds of fat were usually used when cooking, for example to flavor vegetables or fry meat? (Mark up to four.) [5 => Olive oil]
ADJ12_6	12. In your household, what kinds of fat were usually used when cooking, for example to flavor vegetables or fry meat? (Mark up to four.) [6 => Canola oil]
ADJ12_7	12. In your household, what kinds of fat were usually used when cooking, for example to flavor vegetables or fry meat? (Mark up to four.) [7 => Other oils such as corn, soybean, safflower or peanut]
ADJ12_8	12. In your household, what kinds of fat were usually used when cooking, for example to flavor vegetables or fry meat? (Mark up to four.) [8 => Lard, bacon fat or meat drippings]
ADJ12_9	12. In your household, what kinds of fat were usually used when cooking, for example to flavor vegetables or fry meat? (Mark up to four.) [9 => Didnt use fat or used non-stick spray (Pam)]
ADJ13_1	13. What kinds of fat did you use at the table, for example on breads, vegetables or potatoes? (Mark up to four.) [1 => Butter]
ADJ13_2	13. What kinds of fat did you use at the table, for example on breads, vegetables or potatoes? (Mark up to four.) [2 => Stick margarine]
ADJ13_3	13. What kinds of fat did you use at the table, for example on breads, vegetables or potatoes? (Mark up to four.) [3 => Tub or liquid margarine]
ADJ13_4	13. What kinds of fat did you use at the table, for example on breads, vegetables or potatoes? (Mark up to four.) [4 => Lowfat margarine]
ADJ13_5	13. What kinds of fat did you use at the table, for example on breads, vegetables or potatoes? (Mark up to four.) [5 => Olive oil]

Variable Name	Variable Label
ADJ13_6	13. What kinds of fat did you use at the table, for example on breads, vegetables or potatoes? (Mark up to four.) [6 => Sour cream]
ADJ13_7	13. What kinds of fat did you use at the table, for example on breads, vegetables or potatoes? (Mark up to four.) [7 => Didnt use fat]
FFRQ1	Cold cereals
FFRQ2	Cooked cereals and grits
FFRQ3	Milk on cereals
FFRQ4	Pancakes, French toast and waffles
FFRQ5	Muffins, scones, croissants and biscuits
FFRQ6	White breads, including bagels, rolls and English muffins
FFRQ7	Dark breads, including dark bagels and rolls
FFRQ8	Cornbread and corn muffins
FFRQ9	Butter or margarine on breads, cereals, pancakes, etc.
FFRQ10	Jam, jelly, honey, syrup and sugar (including in coffee, tea and cereal)
FFRQ11	Granola bars and cereal bars such as Nutri-Grain Bars
FFRQ12	Sports or meal replacement bars such as Power Bars and Clif Bars
FFRQ13	Low or nonfat potato chips, tortilla chips, corn chips and pretzels
FFRQ14	Regular potato chips, tortilla chips, corn chips and puffs
FFRQ15	Plain popcorn (no butter) or lowfat microwave popcorn
FFRQ16	Buttered or regular microwave popcorn
FFRQ17	Low or nonfat crackers, such as saltines and SnackWells
FFRQ18	Regular crackers, such as Ritz and Wheat Thins
FFRQ19	Peanut butter, peanuts and other nuts and seeds
FFRQ20	Eggs
FFRQ21	Bacon and breakfast sausage
FFRQ22	Low or reduced fat hot dogs and sausage
FFRQ23	Regular hot dogs and sausage such as bratwurst and chorizo
FFRQ24	Lunch meats such as ham, turkey and lowfat bologna
FFRQ25	All other lunch meat such as bologna, salami and Spam
FFRQ26	Canned tuna, tuna salad and tuna casserole
FFRQ27	Beef, pork, ham and lamb

Variable Name	Variable Label
FFRQ28	Ground meat, including hamburgers and meatloaf
FFRQ29	Liver, chicken liver and organ meats
FFRQ30	Fried chicken, including nuggets and tenders
FFRQ31	Chicken and turkey (roasted, stewed, grilled or boiled)
FFRQ32	Fried fish, fish sandwich and fried shellfish (shrimp and oysters)
FFRQ33	Shellfish, not fried (shrimp, lobster, crab and oysters)
FFRQ34	White fish (broiled or baked) such as sole, halibut, snapper and cod
FFRQ35	Dark fish (broiled or baked) such as salmon, mackerel and bluefish
FFRQ36	Stew, pot pie, curries and casseroles with meat or chicken
FFRQ37	Chili with meat and beans
FFRQ38	Spaghetti, lasagna and other pasta with meat sauce
FFRQ39	Spaghetti and other pasta with tomato sauce (no meat)
FFRQ40	Spaghetti and other pasta with oil, cheese or cream sauce, including macaroni and cheese
FFRQ41	Asian-style (stir-fried) noodles and rice, such as chow mein, fried rice and Pad Thai
FFRQ42	Pizza
FFRQ43	Tofu, tempeh and products such as tofu hot dogs, soy burgers and tofu cheese
FFRQ44	Burritos, tacos, tostadas and quesadillas
FFRQ45	Enchiladas and tamales
FFRQ46	Vegetable, minestrone and tomato soup
FFRQ47	Cream soups such as chowders, potato and cheese
FFRQ48	Bean soups such as pea, lentil and black bean
FFRQ49	Miso soup
FFRQ50	Ramen noodle soup
FFRQ51	Other soups such as chicken noodle
FFRQ52	Cottage cheese and ricotta cheese
FFRQ53	Low or reduced fat cheese, including cheese used in cooking
FFRQ54	All other cheese, such as American, cheddar or cream cheese, including cheese in cooking
FFRQ55	Yogurt, all types except frozen
FFRQ56	Green salad (lettuce or spinach)

Variable Name	Variable Label
FFRQ57	Salad dressing (all types)
FFRQ58	Fresh tomatoes
FFRQ59	Carrots -- raw
FFRQ59A	Carrots -- cooked
FFRQ60	Green pepper and green chilies
FFRQ61	Red peppers and red chilies
FFRQ62	Broccoli
FFRQ63	Cauliflower, cabbage and Brussels sprouts
FFRQ64	Green or string beans
FFRQ65	Green peas
FFRQ66	Corn and hominy
FFRQ67	Summer squash, zucchini
FFRQ68	Winter squash such as acorn, butternut and pumpkin
FFRQ69	Yams and sweet potatoes
FFRQ70	Cooked greens such as spinach, mustard greens and collards
FFRQ71	Onions and leeks
FFRQ72	Fresh garlic, included in cooking
FFRQ73	Avocado and guacamole
FFRQ74	French fries, fried potatoes and hash browns
FFRQ75	Potatoes (boiled, baked or mashed)
FFRQ76	Refried beans
FFRQ77	All other beans such as baked beans, lima beans and chili without meat
FFRQ78	Coleslaw
FFRQ79	Potato, macaroni and pasta salads made with mayonnaise or oil
FFRQ80	Rice, noodles and other grains (as a side dish)
FFRQ81	Butter, margarine, sour cream and other fat added to vegetables, potatoes and rice
FFRQ82	Cheese sauce and cream sauce
FFRQ83	Meat gravies
FFRQ84	Ketchup
FFRQ85	Salsa (as dip or on foods)
FFRQ86	Mayonnaise and mayonnaise-type spreads

Variable Name	Variable Label
FFRQ87	Apples, applesauce and pears
FFRQ88	Bananas
FFRQ89	Peaches, nectarines and plums
FFRQ90	Apricots -- fresh or canned
FFRQ90A	Apricots -- dried
FFRQ91	Dried fruit (other than apricots) such as raisins and prunes
FFRQ92	Oranges, grapefruit and tangerines (not juice)
FFRQ93	Berries such as strawberries and blueberries
FFRQ94	Cantaloupe, orange melon and mango (in season)
FFRQ95	Watermelon and red melon
FFRQ96	Any other fruit such as grapes, fruit cocktail, pineapple and cherries
FFRQ97	Low or nonfat frozen desserts such as lowfat ice cream, frozen yogurt and sherbet
FFRQ98	Ice cream and milkshakes
FFRQ99	Pudding, custard and flan
FFRQ100	Doughnuts, pies and pastries
FFRQ101	Cookies and cakes
FFRQ102	Chocolate, candy bars and toffee
FFRQ103	Other candy, such as Lifesavers, licorice and jelly beans
SUMFRQ1	How often did you eat foods that were cooked in fat (pan-fried, sauteed, or deep-fried)? Count all fat such as margarine, butter, oil or lard.
SUMFRQ2	How often did you eat a serving of vegetables? Do not count potatoes, salad or beans
SUMFRQ3	How often did you eat a serving of fruit? Do not count juices
BFRQ1	Milk (all types) as a beverage
BFRQ2	Latte, cappuccino, mocha or hot chocolate
BFRQ3	Coffee (not lattes or mochas)
BFRQ4	Tea (all types)
BFRQ5	Milk, cream or creamer added to tea and coffee
BFRQ6	Tomato juice, V-8 and other vegetable juice
BFRQ7	Orange juice and grapefruit juice
BFRQ8	Other 100% fruit juice, such as apple, grape and cranberry

Variable Name	Variable Label
BFRQ9	Fruit drinks fortified with Vitamin C, such Hi-C, Fruitopia and Kool-Aid
BFRQ10	Meal replacement drinks and shakes such as Slim-Fast, Ensure and Carnation Instant Breakfast
BFRQ11	Diet soft drinks
BFRQ12	Regular soft drinks
BFRQ13	Water (tap, bottled or sparkling)
BFRQ14	Beer (all types)
BFRQ15	Red wine
BFRQ16	White or rose wine
BFRQ17	Liquor and mixed drinks
FPOR1	Cold cereals [1 cup]
FPOR2	Cooked cereals and grits [1 cup]
FPOR3	Milk on cereals [1/2 cup]
FPOR4	Pancakes, French toast and waffles [2 pieces]
FPOR5	Muffins, scones, croissants and biscuits [1 medium]
FPOR6	White breads, including bagels, rolls and English muffins [2 slices or 1 medium]
FPOR7	Dark breads, including dark bagels and rolls [2 slices or 1 medium]
FPOR8	Cornbread and corn muffins [2 slices or 1 medium]
FPOR9	Butter or margarine on breads, cereals, pancakes, etc. [2 pats or 2 teaspoons]
FPOR10	Jam, jelly, honey, syrup and sugar (including in coffee, tea and cereal) [2 Tbsp.]
FPOR11	Granola bars and cereal bars such as Nutri-Grain Bars [1 bar]
FPOR12	Sports or meal replacement bars such as Power Bars and Clif Bars [1 bar]
FPOR13	Low or nonfat potato chips, tortilla chips, corn chips and pretzels [2 handfuls or 1 small bag]
FPOR14	Regular potato chips, tortilla chips, corn chips and puffs [2 handfuls or 1 small bag]
FPOR15	Plain popcorn (no butter) or lowfat microwave popcorn [4 handfuls]
FPOR16	Buttered or regular microwave popcorn [4 handfuls]
FPOR17	Low or nonfat crackers, such as saltines and SnackWells [6 medium]
FPOR18	Regular crackers, such as Ritz and Wheat Thins [6 medium]
FPOR19	Peanut butter, peanuts and other nuts and seeds [2 Tbsp or 1/4 cup]
FPOR20	Eggs [2 eggs]

Variable Name	Variable Label
FPOR21	Bacon and breakfast sausage [3 strips or 2 links]
FPOR22	Low or reduced fat hot dogs and sausage [1 hot dogs or 2 ounces]
FPOR23	Regular hot dogs and sausage such as bratwurst and chorizo [1 hot dogs or 2 ounces]
FPOR24	Lunch meats such as ham, turkey and lowfat bologna [2 slices]
FPOR25	All other lunch meat such as bologna, salami and Spam [2 slices]
FPOR26	Canned tuna, tuna salad and tuna casserole [1/2 can tuna or 1 cups casserole]
FPOR27	Beef, pork, ham and lamb [4 ounces]
FPOR28	Ground meat, including hamburgers and meatloaf [1 medium or 3 ounces]
FPOR29	Liver, chicken liver and organ meats [4 ounces]
FPOR30	Fried chicken, including nuggets and tenders [1 large piece or 6 nuggets]
FPOR31	Chicken and turkey (roasted, stewed, grilled or boiled) [1 large or 2 small pieces]
FPOR32	Fried fish, fish sandwich and fried shellfish (shrimp and oysters) [3 ounces or 1 sandwich]
FPOR33	Shellfish, not fried (shrimp, lobster, crab and oysters) [3 ounces or 1 cup]
FPOR34	White fish (broiled or baked) such as sole, halibut, snapper and cod [4 ounces]
FPOR35	Dark fish (broiled or baked) such as salmon, mackerel and bluefish [4 ounces]
FPOR36	Stew, pot pie, curries and casseroles with meat or chicken [1 cup]
FPOR37	Chili with meat and beans [1 cup]
FPOR38	Spaghetti, lasagna and other pasta with meat sauce [1 cup]
FPOR39	Spaghetti and other pasta with tomato sauce (no meat) [1 cup]
FPOR40	Spaghetti and other pasta with oil, cheese or cream sauce, including macaroni and cheese [1 cup]
FPOR41	Asian-style (stir-fried) noodles and rice, such as chow mein, fried rice and Pad Thai [1 cup]
FPOR42	Pizza [2 slices]
FPOR43	Tofu, tempeh and products such as tofu hot dogs, soy burgers and tofu cheese [3 ounces, 1 hot dog or 1 burger]
FPOR44	Burritos, tacos, tostadas and quesadillas [1 medium]
FPOR45	Enchiladas and tamales [1 medium]
FPOR46	Vegetable, minestrone and tomato soup [1 cup]
FPOR47	Cream soups such as chowders, potato and cheese [1 cup]

Variable Name	Variable Label
FPOR48	Bean soups such as pea, lentil and black bean [1 cup]
FPOR49	Miso soup [1 cup]
FPOR50	Ramen noodle soup [1 cup]
FPOR51	Other soups such as chicken noodle [1 cup]
FPOR52	Cottage cheese and ricotta cheese [1/2 cup]
FPOR53	Low or reduced fat cheese, including cheese used in cooking [1 slice or 1/4 cup shredded]
FPOR54	All other cheese, such as American, cheddar or cream cheese, including cheese in cooking [1 slice, 1/4 cup shredded, or 2 Tbsp]
FPOR55	Yogurt, all types except frozen [1 cup]
FPOR56	Green salad (lettuce or spinach) [1 cup]
FPOR57	Salad dressing (all types) [2 tablespoons]
FPOR58	Fresh tomatoes [1 medium or 4 slices]
FPOR59	Carrots -- raw [1/2 cup]
FPOR59A	Carrots -- cooked [1/2 cup]
FPOR60	Green pepper and green chilies [1/4 cup]
FPOR61	Red peppers and red chilies [1/4 cup]
FPOR62	Broccoli [1/2 cup]
FPOR63	Cauliflower, cabbage and Brussels sprouts [1/2 cup]
FPOR64	Green or string beans [1/2 cup]
FPOR65	Green peas [1/2 cup]
FPOR66	Corn and hominy [1/2 cup]
FPOR67	Summer squash, zucchini [1/2 cup]
FPOR68	Winter squash such as acorn, butternut and pumpkin [1/2 cup]
FPOR69	Yams and sweet potatoes [1 medium]
FPOR70	Cooked greens such as spinach, mustard greens and collards [1/2 cup]
FPOR71	Onions and leeks [1/4 cup]
FPOR72	Fresh garlic, included in cooking [1 clove]
FPOR73	Avocado and guacamole [1/4 medium or 1/4 cup]
FPOR74	French fries, fried potatoes and hash browns [3/4 cup]
FPOR75	Potatoes (boiled, baked or mashed) [1 medium or 3/4 cup]

Variable Name	Variable Label
FPOR76	Refried beans [1/2 cup]
FPOR77	All other beans such as baked beans, lima beans and chili without meat [1/2 cup]
FPOR78	Coleslaw [1/2 cup]
FPOR79	Potato, macaroni and pasta salads made with mayonnaise or oil [1/2 cup]
FPOR80	Rice, noodles and other grains (as a side dish) [3/4 cup]
FPOR81	Butter, margarine, sour cream and other fat added to vegetables, potatoes and rice [1 pat or 1 teaspoon]
FPOR82	Cheese sauce and cream sauce [1/4 cup]
FPOR83	Meat gravies [1/4 cup]
FPOR84	Ketchup [1/8 cup]
FPOR85	Salsa (as dip or on foods) [1/4 cup]
FPOR86	Mayonnaise and mayonnaise-type spreads [2 Tbsp]
FPOR87	Apples, applesauce and pears [1 medium or 1/2 cup]
FPOR88	Bananas [1 medium]
FPOR89	Peaches, nectarines and plums [1 medium or 1/2 cup]
FPOR90	Apricots -- fresh or canned [2 medium or 4 halves]
FPOR90A	Apricots -- dried [2 medium or 4 halves]
FPOR91	Dried fruit (other than apricots) such as raisins and prunes [1/4 cup]
FPOR92	Oranges, grapefruit and tangerines (not juice) [1 orange or 1/2 grapefruit]
FPOR93	Berries such as strawberries and blueberries [1/2 cup]
FPOR94	Cantaloupe, orange melon and mango (in season) [1/4 melon or 1/2 mango]
FPOR95	Watermelon and red melon [1 medium slice]
FPOR96	Any other fruit such as grapes, fruit cocktail, pineapple and cherries [1/2 cup]
FPOR97	Low or nonfat frozen desserts such as lowfat ice cream, frozen yogurt and sherbet [1 scoop]
FPOR98	Ice cream and milkshakes [1 scoop or 1 shake]
FPOR99	Pudding, custard and flan [3/4 cup]
FPOR100	Doughnuts, pies and pastries [1 piece]
FPOR101	Cookies and cakes [2 medium cookies or 1 piece of cake]
FPOR102	Chocolate, candy bars and toffee [1 regular bar or 2 pieces]
FPOR103	Other candy, such as Lifesavers, licorice and jelly beans [4 pieces or 12 jelly beans]

Variable Name	Variable Label
BPOR1	Milk (all types) as a beverage [1 cup]
BPOR2	Latte, cappuccino, mocha or hot chocolate [1 cup]
BPOR3	Coffee (not lattes or mochas) [1 cup]
BPOR4	Tea (all types) [1 cup]
BPOR5	Milk, cream or creamer added to tea and coffee [1 Tbsp]
BPOR6	Tomato juice, V-8 and other vegetable juice [3/4 cup]
BPOR7	Orange juice and grapefruit juice [3/4 cup]
BPOR8	Other 100% fruit juice, such as apple, grape and cranberry [3/4 cup]
BPOR9	Fruit drinks fortified with Vitamin C, such Hi-C, Fruitopia and Kool-Aid [1 cup]
BPOR10	Meal replacement drinks and shakes such as Slim-Fast, Ensure and Carnation Instant Breakfast [1 cup]
BPOR11	Diet soft drinks [12 ounces or 1 can]
BPOR12	Regular soft drinks [12 ounces or 1 can]
BPOR13	Water (tap, bottled or sparkling) [1 cup]
BPOR14	Beer (all types) [12 ounce can or bottle]
BPOR15	Red wine [1 medium glass (6 oz)]
BPOR16	White or rose wine [1 medium glass (6 oz)]
BPOR17	Liquor and mixed drinks [1 shot (1.5 oz) or 1 mixed drink]
BATCHID	Batch ID
RECNO	Record Num
BCODEID	Barcode ID (if applicable)
DATE	Date Survey Completed
PROCDATE	Processing Date
VERSDB	xSEL Food Database Version Number
VERSFFQ	GSEL FFQ Algorithm Version Number
VERSNDS	NDS Food Database Version Number

Listing of April 2006 Nutrient Dataset Changes

New Nutrients

NDS-R has introduced many new nutrients since our last major upgrade of our nutrient database. In addition, NASR has introduced two values for glycemic load. Below is a list of the new nutrients added with the April 2006 FFQ nutrient dataset update.

- Energy in kilojoules
- Niacin equivalents
- Total sugars
- Omega-3 fatty acids
- Manganese
- Vitamin E (total) in recalculated IU
- Natural alpha-tocopherol
- Synthetic alpha-tocopherol
- Daidzein
- Genistein
- Glycitein
- Coumestrol
- Biochanin A
- Formononetin
- Added sugars
- Acesulfame potassium
- Sucralose
- Glycemic load based on total carbohydrates
- Glycemic load based on available carbohydrates

Nutrient Updates

The University of Minnesota has made the following major updates to its nutrient database since our last major upgrade:

- USDA SR 15, 16 & 16-1
- USDA SR 17 (green leafy vegetables, yogurt, coffee, cooked dried fruit, juice pack canned fruit)
- Vitamin D, K, and carotenoid updates
- Fast food and commercial entrée brand-name foods

Listing of September 2007 Nutrient Dataset Changes

New Nutrients

NDSR has introduced the following new nutrients since the last upgrade of our nutrient database. Below is a list of the new nutrients added with the September 2007 FFQ nutrient dataset update.

- Choline
- Betaine
- Erythritol
- Inositol
- Isomalt
- Lavtitol
- Maltitol
- Mannitol
- Pinitol
- Sorbitol
- Xylitol

Nutrient Updates

The University of Minnesota has made the following major updates to its nutrient database since our last major upgrade:

- USDA SR 19
- Oxalic acid
- Addition of Alaska native foods and an update of game
- Cookies, crackers, sodas, oils, shortenings, cooking sprays, fast foods, and commercial entrees

Output Data

As before, we provide analysis datasets in both SAS and SPSS. We also provide the nutrient analysis dataset in Excel and tab-delimited text formats. The datasets are generated in the latest versions of SAS (version 9.1) and SPSS (version 14.0). These datasets are compatible with earlier versions of the software: SAS versions 7 and later work with the SAS datasets and SPSS versions 10 and later work with the SPSS datasets. More detailed information on the output datasets is available in the README.txt file that accompanies the output.

Glossary

Batch - A group of FFQ forms that are scanned together at NASR. Batches are given a name which consists of a three-letter project code followed by a number, called the BatchNumber that indicates how many batches have been scanned for the project. For example, ABC7 represents the seventh batch scanned for the ABC project.

Daily nutrient intake dataset - A dataset with a record for each participant in a batch. Its fields contain estimated daily intake of more than 130 different nutrients.