

**Cohort, Exam 3****Nutrition Derived Variables in NUTV3**

Similar to visit 1, the nutrients from foods were calculated by the Willett group, to which ARIC added nutrients from alcoholic beverages. The earlier derived variables file TOTNUT32 has been replaced by NUTV3. These variables replaced the variables in the TOTNUT32 data set and, unless specifically requested otherwise, should be used in official ARIC analyses. NUTV3 has 8 additional variables from ANUT2: calor, carbo, crucaofib, fruct, lact\_gm, suc\_rgm, VITEI, VITEIWO.

The nutrition data set NUTV3X is a smaller data set that excludes extreme values. The value of the variable INCLUDE indicates extreme values.

**Table 1: Names and descriptions of 78 variables (nutrients from beer, wine and hard liquor are included).**

Number	Variable names	Description
<b>65 total nutrient variables</b>		
1	TCAL	energy intake in kilocalories
2	PROT	protein in grams
3	AFAT	animal fat in grams
4	VFAT	vegetable fat in grams
5	CARB	carbohydrate in grams
6	CFIB	crude fiber in grams
7	DFIB	dietary fiber in grams
8	CALC	calcium in milligrams
9	IRON	iron in milligrams
10	MAGN	magnesium in milligrams
11	PHOS	phosphorus in milligrams
12	POTA	potassium in milligrams
13	ZINC	zinc in milligrams
14	VITC	vitamin C in milligrams
15	VITB1	thiamine in milligrams
16	VITB2	riboflavin in milligrams
17	NIAC	niacin in milligrams
18	VITB6	vitamin B6 in milligrams
19	FOLA	folate in micrograms
20	RETI	retinol in International Units
21	CARO	total carotenoid in International Units
22	VITA	total vitamin A in International Units
23	SFAT	saturated fat in grams
24	MFAT	monounsaturated fat in grams
25	F181	fatty acid 18.1 in grams
26	PFAT	polyunsaturated fat in grams
27	F182	fatty acid 18.2 in grams
28	CHOL	dietary cholesterol in milligrams

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<b>Number</b>	<b>Variable names</b>	<b>Description</b>
29	METH	methionine in grams
30	VITD	vitamin D in International Units
31	ALCO	alcohol intake in grams
32	VITE	alpha-tocopherol in milligrams
33	CAFF	caffeine in milligrams
34	VITB12	vitamin B12 in micrograms
35	PANT	pantothenic acid in milligrams
36	SUCR	sucrose in grams
37	SODI	sodium in milligrams
38	APROT	animal protein in grams
39	LACT	lactose in grams
40	TRYP	tryptophan in milligrams
41	MANG	manganese in milligrams
42	OMEGA	fatty acids w20.5 and w22.6 in grams
43	COPP	copper in milligrams
44	FRUC	fructose in grams
45	F183	fatty acid 18.3 in grams
46	F40	fatty acid 4.0 in grams
47	F60	fatty acid 6.0 in grams
48	F80	fatty acid 8.0 in grams
49	F100	fatty acid 10.0 in grams
50	F120	fatty acid 12.0 in grams
51	F140	fatty acid 14.0 in grams
52	F160	fatty acid 16.0 in grams
53	F180	fatty acid 18.0 in grams
54	F161	fatty acid 16.1 in grams
55	F201	fatty acid 20.1 in grams
56	F221	fatty acid 22.1 in grams
57	F184	fatty acid 18.4 in grams
58	F204	fatty acid 20.4 in grams
59	F205	fatty acid 20.5 in grams
60	F225	fatty acid 22.5 in grams
61	F226	fatty acid 22.6 in grams
62	GLUT	glutamic acid in grams
63	ASPA	aspartic acid in grams
64	FATE	animal fat without visible fat in grams
65	CALF	energy intake without visible fat in kilocalories
<b>11 derived variables</b>		
66	TFAT	total fat in grams = AFAT+VFAT

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Number	Variable names	Description
67	P.TFAT	percentages of daily total energy intake from total fat
68	P.ALC	percentages of daily total energy intake from alcohol
69	P.PROT	percentages of daily total energy intake from protein
70	P.AFAT	percentages of daily total energy intake from animal fat
71	P.VFAT	percentages of daily total energy intake from vegetable fat
72	P.CARB	percentages of daily total energy intake from carbohydrate
73	P.SFAT	percentages of daily total energy intake from saturated fat
74	P.MFAT	percentages of daily total energy intake from monounsaturated fat
75	P.PFAT	percentages of daily total energy intake from polyunsaturated fat
		$KeysScore = 1.26(2\_P.SFAT - P.PFAT) + 1.5\sqrt{CHOL\_}$
76	KEYS	
<b>Other variables</b>		
77	INCLUDE	YES, NO1, NO2
78	ID	

**Description of the SAS program**

The goal of the program is to create a new SAS data set TOTNUT32 that contains 78 variables: ID, 65 daily total nutrient values (sum of daily nutrient intakes from 66 food items and nutrient intakes from alcoholic beverages), 11 nutrient variables that are derived from these total nutrient values including percentages of energy from macronutrients, and a binary variable INCLUDE to indicate participants who meet the ARIC Nutrition Working Group's inclusion criteria for analysis. Table 1 lists names and brief descriptions of these variables.

The attached hard copy of the program was written for Exam 3 data by replacing data set names and variable names for Visit 1 Exam data. The rest of the memo describes these 78 variables in detail and explains how these variables are created in the SAS program.

**1. Description of 65 total nutrient variables**

Total nutrient variables are sums of daily nutrient intakes from 66 foods and daily nutrient intakes from alcoholic beverages. The ARIC SAS data set NUTRV302 contains participants' daily intakes of 90 nutrients that are calculated from the ARIC 66 food item-frequency questionnaire by Willett. Another ARIC SAS data set DTIC04 contains participants' weekly frequencies of consuming wine, beer, and liquor. Using the weekly alcohol consumption data and Willett's nutrient database for wine, beer, and liquor, daily intakes of 90 nutrients from alcoholic beverages will be computed. However, the calculation of daily nutrient intakes from alcoholic beverages depends on each participant's alcohol drinking status. Classify each participant into a current drinker, a former drinker, or a never drinker using the definition for the DRNKR31 variable in the ARIC SAS data set DERIVED. Do not use the DRNKR31 variable to classify participants unless DRNKR31 is updated using the latest DTIC04 data.

- X If a participant is a current drinker, compute daily intakes of 90 nutrients from wine, beer and liquor using weekly consumption data of these beverages (DTIC96 - DTIC98 in the ARIC SAS data set DTIC04) and Willett's nutrient database for these beverages (entered in pages 1-2 of the SAS program as a data set ALCDRNK). These daily intakes of 90 nutrients from wine, beer and liquor will be added to daily intakes of 90 nutrients from 66 food items

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(NUTRA01 - NUTRA90) to obtain daily total intakes of 90 nutrients (TNUTA01 - TNUTA90). See page 3 or the SAS program for computation.

The ALCDRNK data contains 274 variables; weight of one serving of wine (4oz glass = 116g), 90 nutrient values (NUTRA01 - NUTRA90) for one serving of wine, weight of one serving of beer (12oz can = 360g), 90 nutrient values (NUTRA01 - NUTRA90) for one serving of beer, weight of one serving of liquor (1.5oz shot = 45g), 90 nutrient values (NUTRA01 - NUTRA90) for one serving of liquor, and a new variable MERGEID (= 1).

- X If a participant is a former drinker or a never drinker, assign a zero value to the daily total alcohol intake TNUT33. Other 89 daily total nutrients (TNUTA01 - TNUTA32, TNUTA34 - TNUTA90) will be the same as 89 nutrient intakes from 66 food items (NUTRA01 - NUTRA32, NUTRA34 - NUTRA90).
- X If a participant's drinking status cannot be determined, assign a null value to TNUTA33. Other 89 daily total nutrients (TNUTA01 - TNUTA32, TNUTA34 - TNUTA90) will be the same as 89 nutrient intakes from 66 food items (NUTRA01 - NUTRA32, NUTRA34 - NUTRA90).

25 of 90 daily total nutrient intakes (TNUTA numbers 8, 9, 13, 14, 15, 16, 18, 19, 20, 22, 30, 31, 32, 35, 36, 40, 42, 45, 46, 47, 48, 49, 52, 53, 88) are not useful to use because they are not calculated by Willett's algorithm. See Table 1 for 65 daily total nutrient intakes that will be included in our new SAS data set TOTNUT32.

**2. Description of 11 derived variables**

Using variables defined in Section 1, eleven variables will be created. See Table 1. Calculate the total fat intake by adding the animal fat intake to the vegetable fat intake. To calculate percentages of daily total energy intakes from 8 nutrients, assume that one gram of fat, alcohol, protein and carbohydrate contains 9 kilocalories, 7 kilocalories, 4 kilocalories and 4 kilocalories of energy, respectively. Calculate Keys score as follows:  $1.26(2S - P) + 1.5Z$ , where S is the percentage of energy from saturated fat, P is the percentage of energy from polyunsaturated fat, and Z is the square root of dietary cholesterol, expressed as mg/1,000kcal/day. This equation is from a paper by Anderson et al. on Preventive Medicine 1979;8:525-37.

**3. Description of a binary variable INCLUDE**

A binary variable INCLUDE will be created to indicate participants who meet our inclusion criteria for dietary analysis. Participants will have a value "YES" if they meet the following four criteria. See pages 5-6 of the SAS program.

1. Both DTIC04 and NUTRV302 data exist.
2. The GENDER variable is either female or male. The GENDER variable is necessary because gender specific energy value will be used as an inclusion criterion.
3. Less than 10 blanks in our 66 food item-frequency questionnaire (DTIC01 -DTIC66).
4. Total energy intake TCAL is between 500 and 3600 kcal for women and between 600 and 4200 kcal for men.

If a participant does not meet the above criteria and number of blanks is greater than or equal to 10, assign "NO1" to INCLUDE variable. If a participant cannot take either "YES" or "NO1" and if his or her TCAL value is outside of our acceptable TCAL range (500-3600 kcal for women and 600-4200 kcal for men), assign "NO2" to INCLUDE variable.

**Cohort, Exam 3****Nutrient Data****Data set name: NUTV3**

Nutrient measurements.

<i>AFAT</i>		<i>Animal Fat (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.31 - 179.83 ( median=32.88 mean=36.148 std=18.327 )

<i>ALCO</i>		<i>Alcohol Intake (g) Per Day</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12427	Range	0 - 193.3714 ( median=0 mean=5.0 std=12.3 )
21		Missing

<i>AOFIB</i>		<i>AOAC Fiber (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.93 - 81.5 ( median=13.57 mean=14.594 std=6.754 )

<i>APROT</i>		<i>Animal Protein (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.38 - 298.82 ( median=52.615 mean=56.3151 std=26.3876 )

<i>ASPA</i>		<i>Aspartic Acid (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.9 - 29.29843 ( median=6.39 mean=6.768 std=2.766 )

<i>CAFF</i>		<i>Caffeine (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 1299.9 ( median=146 mean=251.6 std=264.2 )

<i>CALC</i>		<i>Calcium (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	87.58 - 4860.91 ( median=585.2964 mean=665.53994 std=382.21901 )

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<i>CALF</i>		<i>Energy without visible fat (Kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	284.03 - 4176.84 ( median=1454.845 mean=1540.6972 std=578.4506 )

<i>CARB</i>		<i>Carbohydrate (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	29.05 - 785.07 ( median=185.895 mean=199.5070 std=83.5356 )

<i>CARO</i>		<i>Total Carotenoid (IU)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	3.49 - 146439.4 ( median=5650.305 mean=8329.6033 std=8385.0315 )

<i>CFIB</i>		<i>Crude Fiber (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.37 - 29.67 ( median=4.18 mean=4.578 std=2.332 )

<i>CHOL</i>		<i>Dietary Cholesterol (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.56 - 1567.5 ( median=217.975 mean=240.9418 std=127.5126 )

<i>COPP</i>		<i>Copper (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.225714 - 5.07 ( median=1.07 mean=1.133 std=0.431 )

<i>DFIB</i>		<i>Dietary Fiber (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.26 - 120.66 ( median=16.13 mean=17.573 std=8.437 )

<i>F100</i>		<i>Fatty Acid 10:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 2.44 ( median=0.24 mean=0.287 std=0.202 )

<i>F120</i>		<i>Fatty Acid 12:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.01 - 3.28 ( median=0.3 mean=0.36 std=0.25 )

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<i>F140</i>		<i>Fatty Acid 14:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.05 - 11.14 ( median=1.46 mean=1.656 std=0.983 )

<i>F160</i>		<i>Fatty Acid 16:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.99 - 45.63 ( median=10.16 mean=11.112 std=5.360 )

<i>F161</i>		<i>Fatty Acid 16:1 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.02 - 7.35 ( median=1.2 mean=1.32 std=0.68 )

<i>F180</i>		<i>Fatty Acid 18:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.24 - 26.63 ( median=4.87 mean=5.364 std=2.761 )

<i>F181</i>		<i>Fatty Acid 18:1 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.19 - 90.65 ( median=18.84 mean=20.647 std=10.274 )

<i>F182</i>		<i>Fatty Acid 18:2 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.64 - 47.01 ( median=6.54 mean=7.287 std=3.747 )

<i>F183</i>		<i>Fatty Acid 18:3 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.11 - 3.46 ( median=0.66 mean=0.720 std=0.322 )

<i>F201</i>		<i>Fatty Acid 20:1 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 3.09 ( median=0.15 mean=0.181 std=0.147 )

<i>F204</i>		<i>Fatty Acid 20:4 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 1.12 ( median=0.14 mean=0.153 std=0.082 )

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<i>F205</i>		<i>Fatty Acid 20:5 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 2.7 ( median=0.06 mean=0.090 std=0.101 )

<i>F225</i>		<i>Fatty Acid 22:5 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 0.75 ( median=0.03 mean=0.033 std=0.030 )

<i>F226</i>		<i>Fatty Acid 22:6 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 3.63 ( median=0.13 mean=0.180 std=0.184 )

<i>F40</i>		<i>Fatty Acid 4:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 2.99 ( median=0.27 mean=0.328 std=0.256 )

<i>F60</i>		<i>Fatty Acid 6:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 1.82 ( median=0.15 mean=0.192 std=0.157 )

<i>F80</i>		<i>Fatty Acid 8:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 0.87 ( median=0.08 mean=0.091 std=0.073 )

<i>FATE</i>		<i>Animal Fat without visible fat (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.31 - 144.28 ( median=30.37 mean=33.600 std=17.143 )

<i>FOLA</i>		<i>Folate (Micrograms)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	27.84 - 1763.877 ( median=238.4314 mean=257.60105 std=123.73773 )

<i>FRUC</i>		<i>Fructose (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.6 - 207.15 ( median=22.12286 mean=25.627686 std=16.496770 )



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<i>GLUT</i>		<i>Glutamic Acid (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.49 - 47.868 ( median=12.22 mean=12.923 std=5.124 )

<i>ID</i>		<i>Aric Participant ID</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Present	Text suppressed

<i>INCLUDE</i>		<i>Inclusion Criteria Variable</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	YES	

<i>IRON</i>		<i>Iron (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.61 - 87.87 ( median=10.73 mean=11.649 std=5.394 )

<i>KEYS</i>		<i>Keys Score</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	2.625134 - 94.49383 ( median=40.02932 mean=40.246270 std=9.137132 )

<i>LACT</i>		<i>Lactose (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 138.63 ( median=12.48 mean=13.713 std=12.348 )

<i>MAGN</i>		<i>Magnesium (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	48.32 - 1003.01 ( median=240.425 mean=254.3374 std=96.6815 )

<i>MANG</i>		<i>Manganese (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.305143 - 12.18 ( median=2.12 mean=2.319 std=1.077 )

<i>METH</i>		<i>Methionine (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.14 - 8.54 ( median=1.65 mean=1.756 std=0.756 )

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<i>MFAT</i>		<i>Monounsaturated Fatty Acid (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.39 - 98.9 ( median=20.65 mean=22.567 std=11.046 )

<i>NIAC</i>		<i>Niacin (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	2.87 - 100.4486 ( median=18.76429 mean=19.808028 std=7.956678 )

<i>OMEGA</i>		<i>Omega Fatty Acid W20:5 And W22:6 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 6.33 ( median=0.19 mean=0.269 std=0.283 )

<i>PANT</i>		<i>Pantothenic Acid (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.598286 - 40.55 ( median=3.94 mean=4.247 std=1.869 )

<i>PFAT</i>		<i>Polyunsaturated Fatty Acid (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.92 - 50.43 ( median=7.79 mean=8.595 std=4.133 )

<i>PHOS</i>		<i>Phosphorous (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	179.91 - 4638 ( median=1005.45 mean=1073.159 std=436.542 )

<i>POTA</i>		<i>Potassium (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	376.98 - 9963.163 ( median=2554.905 mean=2686.5491 std=1002.8455 )

<i>PROT</i>		<i>Protein (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	8.79 - 317.6757 ( median=70.215 mean=74.2972 std=30.2352 )

<i>P_AFAT</i>		<i>Animal Fat (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.408671 - 55.67423 ( median=19.81391 mean=20.108225 std=6.162968 )

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<i>P_ALC</i>		<i>Alcohol (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12427	Range	0 - 56.80477 ( median=0 mean=2.1 std=4.8 )
21		Missing

<i>P_CARB</i>		<i>Carbohydrate (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	11.69809 - 95.57589 ( median=49.54362 mean=49.877616 std=9.907512 )

<i>P_MFAT</i>		<i>Monounsaturated Fatty Acid (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.181337 - 26.71806 ( median=12.54952 mean=12.478297 std=3.222341 )

<i>P_PFAT</i>		<i>Polyunsaturated Fatty Acid (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.90969 - 16.55005 ( median=4.688009 mean=4.8122956 std=1.3645925 )

<i>P_PROT</i>		<i>Protein (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	4.378136 - 41.9851 ( median=18.58191 mean=18.777137 std=4.288389 )

<i>P_SFAT</i>		<i>Saturated Fatty Acid (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.666163 - 27.63712 ( median=11.15879 mean=11.181559 std=2.980014 )

<i>P_TFAT</i>		<i>Total Fat (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	6.620584 - 61.73731 ( median=31.73052 mean=31.495345 std=7.165280 )

<i>P_VFAT</i>		<i>Vegetable Fat (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.772394 - 49.58256 ( median=10.89136 mean=11.387120 std=4.690195 )

<i>RETI</i>		<i>Retinol (IU)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	19.19 - 16832.47 ( median=1730.345 mean=1929.2428 std=1260.8149 )

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<i>SFAT</i>		<i>Saturated Fatty Acid (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.47 - 95.55 ( median=18.375 mean=20.2060 std=9.9941 )

<i>SODI</i>		<i>Sodium (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	172.06 - 6682.96 ( median=1407.648 mean=1494.6046 std=612.2871 )

<i>SUCR</i>		<i>Sucrose (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.44 - 277.07 ( median=36.9 mean=42.85 std=26.70 )

<i>TCAL</i>		<i>Energy (Kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	501.14 - 4176.84 ( median=1513.788 mean=1604.9829 std=594.5345 )

<i>TFAT</i>		<i>Total Fat (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	6.61 - 237.52 ( median=52.165 mean=56.7667 std=26.4126 )

<i>TRYP</i>		<i>Tryptophan (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.1 - 3.52 ( median=0.81 mean=0.853 std=0.347 )

<i>VFAT</i>		<i>Vegetable Fat (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.11 - 125.61 ( median=17.89 mean=20.619 std=12.418 )

<i>VITA</i>		<i>Total Vitamin A (IU)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	22.68 - 146641.5 ( median=7745.65 mean=10258.846 std=8617.719 )

<i>VITB1</i>		<i>Thiamine (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.13 - 7.15 ( median=1.05 mean=1.117 std=0.451 )

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<i>VITB12</i>		<i>Vitamin B12 (Micrograms)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 33.84 ( median=5.89 mean=6.520 std=3.951 )

<i>VITB2</i>		<i>Riboflavin (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.23 - 8.9 ( median=1.52 mean=1.623 std=0.675 )

<i>VITB6</i>		<i>Vitamin B6 (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.231429 - 9.38 ( median=1.795714 mean=1.9029290 std=0.7750095 )

<i>VITC</i>		<i>Vitamin C (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	2.16 - 1174.79 ( median=114.525 mean=131.3206 std=90.8122 )

<i>VITD</i>		<i>Vitamin D (IU)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	6.58 - 3692.4 ( median=221.22 mean=259.188 std=174.692 )

<i>VITE</i>		<i>Alpha-Tocopherol (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.6 - 110.66 ( median=4.42 mean=5.149 std=3.672 )

<i>VITEI</i>		<i>Vitamin E (IU)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.84 - 113.15 ( median=6.52 mean=7.466 std=4.561 )

<i>VITEIWO</i>		<i>Vitamin E without pills (IU)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.84 - 113.15 ( median=6.52 mean=7.466 std=4.561 )

<i>ZINC</i>		<i>Zinc (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.355714 - 81.6 ( median=9.719286 mean=10.4173580 std=4.5314106 )

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<i>_16T191</i>		<i>Trans 16:1 fatty acid gm, Sacks 1991</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 0.67 ( median=0.09 mean=0.106 std=0.063 )

<i>ACAR</i>		<i>Alpha Carotene mcg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 23318.44 ( median=483.995 mean=820.8792 std=1070.7967 )

<i>APIG</i>		<i>Apigenin mg, Flavone</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 0 ( median=0 mean=0.0 std=0.0 )

<i>BCAR</i>		<i>Beta Carotene mcg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	2.07 - 52310.59 ( median=2267.405 mean=3182.0806 std=3098.4825 )

<i>BCAR_WO</i>		<i>Beta Carotene without suppl mcg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	2.07 - 52310.59 ( median=2267.405 mean=3182.0806 std=3098.4825 )

<i>BCRYP</i>		<i>Beta Cryptoxanthin mcg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 2450.88 ( median=173.61 mean=195.430 std=169.058 )

<i>CALOR</i>		<i>Total Calories Kcal</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	188.73 - 4007.28 ( median=1208.295 mean=1291.6852 std=513.2620 )

<i>CARBO</i>		<i>Carbohydrates gm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	14.82 - 666.48 ( median=154.83 mean=168.236 std=75.054 )

<i>CEREALAOFIB</i>		<i>AOAC Fiber gm from cereal</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 37 ( median=2.96 mean=3.413 std=2.231 )

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<i>CRUCAOFIB</i>		<i>AOAC Fiber gm from cruc</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 27.91 ( median=0.43 mean=0.778 std=0.934 )

<i>CT18291</i>		<i>Cis Trans 18:2 fatty acid gm, Sacks 1991</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 2.22 ( median=0.12 mean=0.145 std=0.112 )

<i>FRUCT</i>		<i>Fructose gm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.43 - 139.21 ( median=17.06 mean=20.113 std=13.875 )

<i>FRUITAOFIB</i>		<i>AOAC Fiber gm from fruit</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 30.14 ( median=2.82 mean=3.256 std=2.611 )

<i>GIBD</i>		<i>Glycemic Index, Bread</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	50.53 - 99.74 ( median=81.79 mean=81.634 std=4.501 )

<i>GID</i>		<i>Glycemic Index</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	35.4 - 69.96 ( median=57.44 mean=57.324 std=3.150 )

<i>GL</i>		<i>Glycemic Load</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	700.61 - 41415.27 ( median=8921.055 mean=9674.9313 std=4409.3401 )

<i>GLB</i>		<i>Glycemic Load, Bread</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1000.41 - 59123.97 ( median=12707.48 mean=13778.215 std=6281.559 )

<i>GLU</i>		<i>Glucose gm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0.59 - 142.12 ( median=18.48 mean=21.434 std=14.270 )

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<i>KAEM</i>		<i>Kaempferol mg, Flavonol</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 44.08 ( median=2.43 mean=3.818 std=4.969 )

<i>LACT_GM</i>		<i>Lactose gm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 16.66 ( median=1.27 mean=1.569 std=1.263 )

<i>LEGAOFIB</i>		<i>AOAC fiber gm from legumes</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 38.5 ( median=1.49 mean=2.096 std=1.961 )

<i>LUT</i>		<i>Lutein And Zeaxanthin mcg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.81 - 45611.36 ( median=1538.83 mean=2124.761 std=2177.248 )

<i>LUTEOLIN</i>		<i>Luteolin mg, Flavone</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 0.55 ( median=0.01 mean=0.017 std=0.024 )

<i>LYCO</i>		<i>Lycopene mcg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 26045.25 ( median=520.91 mean=1075.464 std=1368.956 )

<i>MYRI</i>		<i>Myricetin mg, Flavonol</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 11.24 ( median=0.38 mean=0.695 std=0.962 )

<i>QUER</i>		<i>Quercetin mg, Flavonol</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 54.58 ( median=4.08 mean=6.187 std=6.400 )

<i>ST</i>		<i>Starch gm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	2.62 - 372.86 ( median=51.89 mean=55.976 std=26.658 )



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<i>SUCR_GM</i>		<i>Sucrose gm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	1.23 - 275.65 ( median=32.37 mean=38.188 std=25.324 )

<i>TOTFLAVO</i>		<i>Total Flavonoids mg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 103.81 ( median=6.64 mean=10.716 std=12.193 )

<i>TR18191</i>		<i>Trans 18:1 fatty acid gm, Sacks 1991</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 17.96 ( median=1.33 mean=1.695 std=1.328 )

<i>TR18291</i>		<i>Trans Trans 18:2 fatty acid gm, Sacks 1991</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 0.9 ( median=0.09 mean=0.105 std=0.075 )

<i>TRANS91</i>		<i>Total Trans gm, Sacks1991</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 19.2 ( median=1.65 mean=2.051 std=1.531 )

<i>VEGAOFIB</i>		<i>AOAC Fiber gm from vegetables</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12448	Range	0 - 62.92 ( median=4.32 mean=5.184 std=3.841 )