

Cohort, Exam 2**Nutrition Derived Variables in NUTV2**

Similar to visit 1, the nutrients from foods were calculated by the Willett group, to which ARIC added nutrients from alcoholic beverages. The DTI form at visit 2 was applied to a sample of participants in order to study repeatability. The earlier derived variables file TOTNUT2 has been replaced by NUTV2. These variables replaced the variables in the TOTNUT2 data set and, unless specifically requested otherwise, should be used in official ARIC analyses. NUTV2 has 6 additional variables from ANUT2: calor, carbo, crucaofib, fruct, lact_gm and sucr_gm.

The nutrition data set NUTV2X 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
65 total nutrient variables		
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

Cohort, Exam 2

Number	Variable names	Description
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

Cohort, Exam 2

Number	Variable names	Description
11 derived variables		
66	TFAT	total fat in grams = AFAT+VFAT
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	
Other variables		
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 TOTNUT2 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 is written for Exam 1 data, but it can be used for Exam 2 data by replacing data set names and variable names. 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 NUTRV2 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 DTIB 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 DRNKR01 variable in the ARIC SAS data set DERIVED. Do not use the DRNKR01 variable to classify participants unless DRNKR01 is updated using the latest DTIB 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 (DTIB96 - DTIB98 in the ARIC SAS data set DTIB) and Willett's

Cohort, Exam 2

nutrient database for these beverages (entered in pages 1-2 of my 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 (NUTRV2A01 - NUTRV2A90) to obtain daily total intakes of 90 nutrients (TNUTA01 - TNUTA90). See page 3 or my SAS program for computation.

The ALCDRNK data contains 274 variables; weight of one serving of wine (4oz glass = 116g), 90 nutrient values (NUTRV2A01 - NUTRV2A90) for one serving of wine, weight of one serving of beer (12oz can = 360g), 90 nutrient values (NUTRV2A01 - NUTRV2A90) for one serving of beer, weight of one serving of liquor (1.5oz shot = 45g), 90 nutrient values (NUTRV2A01 - NUTRV2A90) 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 (NUTRV2A01 - NUTRV2A32, NUTRV2A34 - NUTRV2A90).
- 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 (NUTRV2A01 - NUTRV2A32, NUTRV2A34 - NUTRV2A90).

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 TOTNUT2.

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 DTIB and NUTRV2 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 (DTIB01 -DTIB66).
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 2**Nutrient Data****Data set name: NUTV2**

Nutrient measurements.

<i>AFAT</i>		<i>Animal Fat (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	4.07 - 133.73 (median=29.41 mean=32.296 std=16.567)

<i>ALCO</i>		<i>Alcohol Intake (g) Per Day</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 158.4 (median=0 mean=5.5 std=12.3)

<i>APROT</i>		<i>Animal Protein (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	7.13 - 202.32 (median=47.05 mean=49.566 std=22.007)

<i>ASPA</i>		<i>Aspartic Acid (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1.243714 - 22.55 (median=5.4 mean=5.60 std=2.30)

<i>CAFF</i>		<i>Caffeine (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 1136.03 (median=175.98 mean=288.764 std=289.537)

<i>CALC</i>		<i>Calcium (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	109.3 - 2742.24 (median=549.8 mean=622.93 std=339.98)

<i>CALF</i>		<i>Energy without visible fat (Kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	466.47 - 3989.97 (median=1379.76 mean=1475.366 std=572.225)

<i>CARB</i>		<i>Carbohydrate (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	36.72571 - 679.94 (median=178.7414 mean=193.78301 std=83.26603)

Cohort, Exam 2

<i>CARO</i>		<i>Total Carotenoid (IU)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	264.88 - 55807.27 (median=4936.55 mean=6854.807 std=5801.283)

<i>CFIB</i>		<i>Crude Fiber (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.52 - 18.24 (median=3.82 mean=4.100 std=1.987)

<i>CHOL</i>		<i>Dietary Cholesterol (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	35.89 - 913.61 (median=200.98 mean=226.860 std=120.340)

<i>COPP</i>		<i>Copper (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.345714 - 3.672857 (median=1.197143 mean=1.2893991 std=0.5216595)

<i>DFIB</i>		<i>Dietary Fiber (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	2.3 - 88.95 (median=15.4 mean=16.69 std=8.04)

<i>F100</i>		<i>Fatty Acid 10:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.01 - 1.76 (median=0.2 mean=0.24 std=0.19)

<i>F120</i>		<i>Fatty Acid 12:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.02 - 2.15 (median=0.26 mean=0.305 std=0.220)

<i>F140</i>		<i>Fatty Acid 14:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.13 - 7.83 (median=1.41 mean=1.609 std=0.965)

<i>F160</i>		<i>Fatty Acid 16:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1.81 - 41.3 (median=9.97 mean=10.985 std=5.434)

Cohort, Exam 2

<i>F161</i>		<i>Fatty Acid 16:1 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.2 - 5.58 (median=1.21 mean=1.328 std=0.664)

<i>F180</i>		<i>Fatty Acid 18:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.61 - 20.06 (median=4.75 mean=5.280 std=2.760)

<i>F181</i>		<i>Fatty Acid 18:1 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1.93 - 77.65 (median=17.62 mean=19.399 std=9.624)

<i>F182</i>		<i>Fatty Acid 18:2 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1.04 - 31.39 (median=6.52 mean=7.395 std=4.013)

<i>F183</i>		<i>Fatty Acid 18:3 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.14 - 2.35 (median=0.62 mean=0.673 std=0.296)

<i>F184</i>		<i>Fatty Acid 18:4 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 0.11 (median=0.01 mean=0.009 std=0.009)

<i>F201</i>		<i>Fatty Acid 20:1 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 1.3 (median=0.14 mean=0.170 std=0.134)

<i>F204</i>		<i>Fatty Acid 20:4 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.01 - 0.69 (median=0.12 mean=0.127 std=0.066)

<i>F205</i>		<i>Fatty Acid 20:5 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 1.16 (median=0.07 mean=0.086 std=0.086)

Cohort, Exam 2

<i>F221</i>		<i>Fatty Acid 22:1 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 0.86 (median=0.02 mean=0.053 std=0.073)

<i>F225</i>		<i>Fatty Acid 22:5 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 0.25 (median=0.02 mean=0.028 std=0.024)

<i>F226</i>		<i>Fatty Acid 22:6 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 2.22 (median=0.13 mean=0.168 std=0.155)

<i>F40</i>		<i>Fatty Acid 4:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 2.3 (median=0.25 mean=0.300 std=0.250)

<i>F60</i>		<i>Fatty Acid 6:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 1.37 (median=0.14 mean=0.177 std=0.157)

<i>F80</i>		<i>Fatty Acid 8:0 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 0.79 (median=0.07 mean=0.087 std=0.074)

<i>FATE</i>		<i>Animal Fat without visible fat (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	4.07 - 110.85 (median=26.53 mean=29.686 std=15.420)

<i>FOLA</i>		<i>Folate (Micrograms)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	47.13 - 1206.22 (median=210.77 mean=223.594 std=103.824)

<i>FRUC</i>		<i>Fructose (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1.69 - 137.0886 (median=20.10857 mean=23.362387 std=16.497962)

Cohort, Exam 2

<i>GLUT</i>		<i>Glutamic Acid (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	2.222 - 40.86 (median=10.6 mean=11.02 std=4.41)

<i>ID</i>		<i>Aric Subject ID (Cir)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Present	Text suppressed

<i>INCLUDE</i>		<i>Inclusion Criteria Variable</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	YES	

<i>IRON</i>		<i>Iron (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	3.225714 - 57.3 (median=9.915714 mean=10.8894686 std=4.8294528)

<i>KEYS</i>		<i>Keys Score</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	12.92787 - 75.31383 (median=39.88152 mean=40.474858 std=9.214369)

<i>LACT</i>		<i>Lactose (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.07 - 87.31 (median=11.43 mean=12.471 std=11.091)

<i>MAGN</i>		<i>Magnesium (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	60.57 - 801.97 (median=235.4686 mean=244.54255 std=89.10242)

<i>MANG</i>		<i>Manganese (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.23 - 6.34 (median=1.830429 mean=2.0388232 std=0.9612991)

<i>METH</i>		<i>Methionine (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.29 - 6.41 (median=1.52 mean=1.585 std=0.646)

Cohort, Exam 2

<i>MFAT</i>		<i>Monounsaturated Fatty Acid (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	2.25 - 83.91 (median=19.3 mean=21.29 std=10.39)

<i>NIAC</i>		<i>Niacin (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	4.09 - 78.56 (median=17.14 mean=18.024 std=7.110)

<i>OMEGA</i>		<i>Omega Fatty Acid W20:5 And W22:6 (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 3.27 (median=0.17 mean=0.230 std=0.234)

<i>PANT</i>		<i>Pantothenic Acid (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1.004143 - 29.54 (median=3.72 mean=3.986 std=1.871)

<i>PFAT</i>		<i>Polyunsaturated Fatty Acid (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1.49 - 34.23 (median=7.66 mean=8.613 std=4.344)

<i>PHOS</i>		<i>Phosphorous (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	247.0229 - 3248.79 (median=983.17 mean=1020.789 std=396.967)

<i>POTA</i>		<i>Potassium (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	708.92 - 7820.8 (median=2406.137 mean=2521.1019 std=921.0772)

<i>PROT</i>		<i>Protein (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	15.14 - 254.24 (median=65.24 mean=66.991 std=26.013)

<i>P_AFAT</i>		<i>Animal Fat (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	3.354518 - 48.71846 (median=18.24832 mean=18.732852 std=6.151731)

Cohort, Exam 2

<i>P_ALC</i>		<i>Alcohol (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 46.12236 (median=0 mean=2.5 std=5.2)

<i>P_CARB</i>		<i>Carbohydrate (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	17.75813 - 83.02789 (median=50.30102 mean=50.221478 std=9.232254)

<i>P_MFAT</i>		<i>Monounsaturated Fatty Acid (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	2.39971 - 24.56069 (median=12.33762 mean=12.219594 std=2.985041)

<i>P_PFAT</i>		<i>Polyunsaturated Fatty Acid (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1.029517 - 14.45146 (median=4.864411 mean=4.9841801 std=1.4090563)

<i>P_PROT</i>		<i>Protein (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	5.904903 - 36.48137 (median=17.45587 mean=17.730652 std=3.970882)

<i>P_SFAT</i>		<i>Saturated Fatty Acid (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	2.193807 - 21.22909 (median=11.29989 mean=11.434887 std=2.910690)

<i>P_TFAT</i>		<i>Total Fat (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	6.319362 - 56.31318 (median=32.00209 mean=31.774644 std=6.719414)

<i>P_VFAT</i>		<i>Vegetable Fat (%kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.979819 - 47.17416 (median=12.63436 mean=13.041793 std=4.901918)

<i>RETI</i>		<i>Retinol (IU)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	50.9 - 13125.82 (median=1674.7 mean=1914.54 std=1318.93)

Cohort, Exam 2

<i>SFAT</i>		<i>Saturated Fatty Acid (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	3.36 - 69.18 (median=17.81 mean=19.943 std=9.967)

<i>SODI</i>		<i>Sodium (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	248.67 - 4747.27 (median=1345.394 mean=1423.6840 std=595.2299)

<i>SUCR</i>		<i>Sucrose (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	3.34 - 309.15 (median=43.46 mean=52.209 std=36.492)

<i>TCAL</i>		<i>Energy (Kcal)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	523.79 - 4010.51 (median=1461.09 mean=1544.954 std=585.073)

<i>TFAT</i>		<i>Total Fat (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	9.25 - 193.84 (median=50.31 mean=55.184 std=25.746)

<i>TRYP</i>		<i>Tryptophan (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	162.24 - 2873 (median=748.21 mean=773.971 std=303.221)

<i>VFAT</i>		<i>Vegetable Fat (g)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1.08 - 95.13 (median=20.2 mean=22.89 std=13.62)

<i>VITA</i>		<i>Total Vitamin A (IU)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	656.5 - 58995.82 (median=6940.26 mean=8769.395 std=6085.280)

<i>VITB1</i>		<i>Thiamine (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.27 - 4.88 (median=0.99 mean=1.053 std=0.427)

Cohort, Exam 2

<i>VITB12</i>		<i>Vitamin B12 (micrograms)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.56 - 24.1 (median=6.21 mean=6.874 std=4.058)

<i>VITB2</i>		<i>Riboflavin (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.32 - 5.57 (median=1.381429 mean=1.4836514 std=0.6150211)

<i>VITB6</i>		<i>Vitamin B6 (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.43 - 7.12 (median=1.63 mean=1.692 std=0.687)

<i>VITC</i>		<i>Vitamin C (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	10.94 - 1061.65 (median=102.76 mean=115.638 std=86.638)

<i>VITD</i>		<i>Vitamin D (IU)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	5.16 - 1122.65 (median=184 mean=208.8 std=126.8)

<i>VITE</i>		<i>Alpha-Tocopherol (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.85 - 78.97 (median=4.18 mean=4.950 std=4.023)

<i>ZINC</i>		<i>Zinc (mg)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	2.57 - 50.54 (median=9.65 mean=10.188 std=4.381)

<i>_16T191</i>		<i>Trans 16:1 fatty acid gm, Sacks 1991</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.02 - 0.62 (median=0.14 mean=0.149 std=0.078)

<i>ACAR</i>		<i>Alpha Carotene mcg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	2.65 - 8173.52 (median=415.57 mean=653.797 std=751.066)

Cohort, Exam 2

<i>AOFIB</i>		<i>AOAC fiber gm, 1993</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1.96 - 54.35 (median=13.28 mean=14.332 std=6.472)

<i>APIG</i>		<i>Apigenin mg, Flavone</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	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>
1027	Range	101.56 - 35650.04 (median=1996.29 mean=2680.784 std=2363.530)

<i>BCAR_WO</i>		<i>Beta Carotene without suppl mcg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	101.56 - 35650.04 (median=1996.29 mean=2680.784 std=2363.530)

<i>BCRYP</i>		<i>Beta Cryptoxanthin mcg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 1330.94 (median=137.63 mean=158.439 std=126.741)

<i>CALOR</i>		<i>Total Calories Kcal</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	474.12 - 3966.71 (median=1407.97 mean=1508.407 std=576.702)

<i>CARBO</i>		<i>Carbohydrates gm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	34.35 - 650.5 (median=173.24 mean=186.071 std=80.739)

<i>CEREALAOFIB</i>		<i>AOAC fiber gm from cereal</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.12 - 19.35 (median=2.96 mean=3.372 std=2.039)

<i>CRUCAOFIB</i>		<i>AOAC fiber gm from cruc</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 9.97 (median=0.43 mean=0.705 std=0.838)

Cohort, Exam 2

<i>CT18291</i>		<i>Cis Trans 18:2 fatty acid gm, Sacks 1991</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.01 - 0.95 (median=0.14 mean=0.163 std=0.118)

<i>FRUCT</i>		<i>Fructose gm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1.39 - 125.25 (median=20.19 mean=22.811 std=14.766)

<i>FRUITAOFIB</i>		<i>AOAC fiber gm from fruit</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 26.48 (median=3.33 mean=3.931 std=2.978)

<i>GIBD</i>		<i>Glycemic Index, Bread</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	54.73 - 92.4 (median=77.87 mean=77.446 std=5.308)

<i>GID</i>		<i>Glycemic Index</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	38.36 - 65.09 (median=54.7 mean=54.40 std=3.71)

<i>GL</i>		<i>Glycemic Load</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1572.47 - 40001.35 (median=9386.5 mean=10166.41 std=4617.48)

<i>GLB</i>		<i>Glycemic Load, Bread</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	2240.26 - 56957.77 (median=13367.3 mean=14474.43 std=6578.52)

<i>GLU</i>		<i>Glucose gm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	1.34 - 118.23 (median=18.97 mean=21.440 std=14.026)

<i>KAEM</i>		<i>Kaempferol mg, Flavonol</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 37.64 (median=2.41 mean=3.592 std=4.719)

Cohort, Exam 2

<i>LACT_GM</i>		<i>Lactose gm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.01 - 89.86 (median=11.2 mean=12.84 std=10.96)

<i>LEGAOFIB</i>		<i>AOAC fiber gm from legumes</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 47.07 (median=1.37 mean=1.908 std=2.303)

<i>LUT</i>		<i>Lutein And Zeaxanthin mcg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	69.93 - 18300.09 (median=1426.88 mean=1853.683 std=1533.004)

<i>LUTEOLIN</i>		<i>Luteolin mg, Flavone</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 0.08 (median=0.01 mean=0.013 std=0.015)

<i>LYCO</i>		<i>Lycopene mcg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 3720.75 (median=520.91 mean=924.471 std=997.542)

<i>MYRI</i>		<i>Myricetin mg, Flavonol</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 7.02 (median=0.26 mean=0.649 std=0.938)

<i>QUER</i>		<i>Quercetin mg, Flavonol</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.39 - 59.99 (median=6.22 mean=7.744 std=6.882)

<i>ST</i>		<i>Starch gm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	6.49 - 188.39 (median=50.01 mean=53.682 std=25.553)

<i>SUCR_GM</i>		<i>Sucrose gm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	4.02 - 232.69 (median=37.55 mean=43.732 std=28.266)

Cohort, Exam 2

<i>TOTFLAVO</i>		<i>Total Flavonoids mg</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.39 - 100.37 (median=8.41 mean=11.997 std=12.137)

<i>TR18191</i>		<i>Trans 18:1 fatty acid gm, Sacks 1991</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.06 - 10.69 (median=1.8 mean=2.18 std=1.51)

<i>TR18291</i>		<i>Trans Trans 18:2 fatty acid gm, Sacks 1991</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 0.59 (median=0.11 mean=0.135 std=0.087)

<i>TRANS91</i>		<i>Total Trans gm, Sacks 1991</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0.12 - 12.15 (median=2.21 mean=2.625 std=1.738)

<i>VEGAOFIB</i>		<i>AOAC fiber gm from vegetables</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1027	Range	0 - 49.1 (median=3.78 mean=4.477 std=3.386)