Cohort, Exam 1

Nutrition Derived Variables in ANUT2

The nutrient values from foods other than alcoholic beverages were provided by the Willett group. ARIC added to these nutrient values the nutrients estimated from alcoholic beverage consumption from a program developed by Tomoko Shimakawa and were approved by the ARIC Nutrition Working Group.

ANUT2 is the most current data set containing nutrition derived variables. The earlier file TOTNUT has now been replaced by ANUT2 and is the file that should be used for analysis. Only values for participants meeting the ARIC Nutrition Working Groups criteria for analysis are included in this data set (see description of variable INCLUDE in attached memo). ANUT2 has 30 additional variables from TOTNUT:

ACAR, AOFIB, APIG, BCAR, BCAR_WO, BCRYP, CERAOFIB, CT18291, FRTAOFIB, GI, GIB, GIBD, GID, GL, GLB, GLU, KAEM, LEGAOFIB, LUT, LUTEOLIN, LYCO, MYRI, QUER, ST, TOTFLAVO, TR18191, TR18291, TRANS91, VEGAOFIB, and _16T191.

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

The attached memo describes in detail how values for these variables are calculated.

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

Number	Variable Name	Description
1	ID	Participant Identifier
2	CALOR	Total Calories kcal
	(Replaced by TCAL)	(includes calories from alcohol)
3	CARB	Carbohydrates gm
4	SUCR	Sucrose gm
5	FRUCT	Fructose gm
6	LACT	Lactose gm
7	ST	Starch gm
8	GLU	Glucose gm
9	AOFIB	AOAC Fiber gm, 1993
10	ACAR	Alpha Carotene mcg
11	BCAR	Beta Carotene mcg
12	BCRYP	Beta Cryptoxanthin mcg
13	LYCO	Lycopene mcg
14	LUT	Lutein and Zeaxanthin mcg
15	_16T191	Trans 16:1 fa gm, Sacks 1991
16	TR18191	Trans 18:1 fa gm, Sacks 1991
17	TR18291	Trans Trans 18:2 fa gm, Sacks 1991
18	CT18291	Cis Trans 18:2 fa gm, Sacks 1991
19	TRANS91	gm, Sacks 1991
20	MYRI	Myricetin mg, flavonol
21	KAEM	Kaempferol mg, flavonol
22	QUER	Quercetin mg, flavonol
23	LUTEOLIN	Luteolin mg, flavone
24	APIG	Apigenin mg, flavone
25	TOTFLAVO	Total Flavonoids mg

Number	Variable Name	Description
26	GI	Glycemic Index
27	GIB	Glycemic Index, Bread
28	GL	Glycemic Load
29	GLB	Glycemic Load, Bread
30	GID	Glycemic Index
31	GIBD	Glycemic Index, Bread
32	BCAR_WO	Beta Carotene w/out suppl mcg
33	CERAOFIB	Cereal Dietary Fiber
34	FRTAOFIB	Fruit Dietary Fiber
35	LEGAOFIB	Legume Dietary Fiber
36	VEGAOFIB	Vegetable Dietary Fiber
37	PROT	protein (g)
38	AFAT	animal fat (g)
39	VFAT	vegetable fat (g)
40	CFIB	crude fiber (g)
41	DFIB	dietary fiber (g)
42	CALC	calcium (mg)
43	IRON	iron (mg)
44	MAGN	magnesium (mg)
45	PHOS	phosphorous (mg)
46	POTA	potassium (mg)
47	ZINC	zinc (mg)
48	VITC	vitamin C (mg)
49	VITB1	thiamine (mg)
50	VITB2	riboflavin (mg)
51	NIAC	niacin (mg)
52	VITB6	vitamin B6 (mg)
53	FOLA	folate (micrograms)
54	RETI	retinol (IU)
55	CARO	total carotenoid (IU)
56	VITA	total vitamin A (IU)
57	SFAT	saturated fatty acid (g)
58	MFAT	monounsaturated fatty acid (g)
59	F181	fatty acid 18:1 (g)
60	PFAT	polyunsaturated fatty acid (g)
61	F182	fatty acid 18:2 (g)
62	CHOL	dietary cholesterol (mg)
63	METH	methionine (g)
64	VITD	vitamin D (IU)
65	ALCO	alcohol intake (g) per day

Number	Variable Name	Description
66	VITE	alpha-tocopherol (mg)
67	CAFF	caffeine (mg)
68	VITB12	vitamin B12 (micrograms)
69	PANT	pantothenic acid (mg)
70	SODI	sodium (mg)
71	APROT	animal protein (g)
72	TRYP	tryptophan (mg)
73	MANG	manganese (mg)
74	OMEGA	omega fatty acid w20:5 and w22:6 (g)
75	COPP	copper (mg)
76	F183	fatty acid 18:3 (g)
77	F40	fatty acid 4:0 (g)
78	F60	fatty acid 6:0 (g)
79	F80	fatty acid 8:0 (g)
80	F100	fatty acid 10:0 (g)
81	F120	fatty acid 12:0 (g)
82	F140	fatty acid 14:0 (g)
83	F160	fatty acid 16:0 (g)
84	F180	fatty acid 18:0 (g)
85	F161	fatty acid 16:1 (g)
86	F201	fatty acid 20:1 (g)
87	F221	fatty acid 22:1 (g)
88	F184	fatty acid 18:4 (g)
89	F204	fatty acid 20:4 (g)
90	F205	fatty acid 20:5 (g)
91	F225	fatty acid 22:5 (g)
92	F226	fatty acid 22:6 (g)
93	GLUT	glutamic acid (g)
94	ASPA	aspartic acid (g)
95	FATE	animal fat wo visible fat (g)
96	CALF	energy wo visible fat (kcal)
97	TFAT	total fat (g)
98	P_TFAT	total fat (%kcal)
99	P_ALC	alcohol (%kcal)
100	P_PROT	protein (%kcal)
101	P_AFAT	animal fat (%kcal)
102	P_VFAT	vegetable fat (%kcal)
103	P_CARB	carbohydrate (%kcal)
104	P_SFAT	saturated fatty acid (%kcal)
105	P_MFAT	monounsaturated fatty acid (%kcal)

Cohort, Exam 1

Number	Variable Name	Description
106	P_PFAT	polyunsaturated fatty acid (%kcal)
107	KEYS	Keys score (defined below)
108	INCLUDE	Inclusion Criteria Variable

$$KeysScore = 1.26(2\_P.SFAT - P.PFAT) + 1.5\sqrt{CHOL}\_1000/TCAL$$

Description of the SAS program

The goal of the program is to create a new SAS data set ANUT2 that contains 108 variables, including 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 Groups 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 78 variables in detail and explains how these variables are created in the SAS program.

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 NUTR contains participant's daily intakes of 90 nutrients that are calculated from the ARIC 66 food item-frequency questionnaire by Willett. Another ARIC SAS data set DTIA 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 DTIA data.

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 (DTIA96 - DTIA98 in the ARIC SAS data set DTIA) and Willett's 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 (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).

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).

If a participants 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 ANUT1.

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, were 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.

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.
Both DTIA and NUTR data exist.

Cohort, Exam 1

1. 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.

2. Less than 10 blanks in our 66 food item-frequency questionnaire (DTIA01 -DTIA66).

3. 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.

ANUT2 Nutrient Data

Nutrient measurements.

ACAR		*Alpha Carotene mcg*
N	*Value*	*Description*
15428	Range	0 - 20356.42 (median=232.045 mean=512.6069 std=767.7428)

AFAT		*Animal Fat (g)*
N	*Value*	*Description*
15428	Range	0.83 - 188.28 (median=33.28 mean=36.122 std=18.106)

ALCO		*Alcohol Intake (g) Per Day*
N	*Value*	*Description*
15367	Range	0 - 265.1429 (median=0 mean=6.1 std=13.8)
61		Missing

AOFIB		*AOAC Fiber gm, 1993*
N	*Value*	*Description*
15428	Range	0.76 - 86.8 (median=13.85 mean=14.902 std=6.964)

APIG		*Apigenin mg, Flavone*
N	*Value*	*Description*
15428	0	

APROT		*Animal Protein (g)*
N	*Value*	*Description*
15428	Range	1.1 - 246.22 (median=50.14 mean=53.552 std=23.773)

ASPA		*Aspartic Acid (g)*
N	*Value*	*Description*
15428	Range	0.892857 - 23.67 (median=5.6795 mean=5.99481 std=2.39960)

BCAR		*Beta Carotene mcg*
N	*Value*	*Description*
15428	Range	6.14 - 56919.04 (median=1810.47 mean=2624.728 std=2591.401)

Cohort, Exam 1

BCAR_WO		*Beta Carotene Without Supplement mcg*
N	*Value*	*Description*
15428	Range	6.14 - 56919.04 (median=1810.47 mean=2624.728 std=2591.401)

BCRYP		*Beta Cryptoxanthin mcg*
N	*Value*	*Description*
15428	Range	0 - 1747.19 (median=56.67 mean=81.273 std=87.622)

CAFF		*Caffeine (mg)*
N	*Value*	*Description*
15428	Range	0 - 1429.19 (median=167.18 mean=285.892 std=293.595)

CALC		*Calcium (mg)*
N	*Value*	*Description*
15428	Range	76.29 - 3961.7 (median=573.53 mean=653.686 std=376.166)

CALF		*Energy Without Visible Fat (Kcal)*
N	*Value*	*Description*
15428	Range	245.37 - 4176.33 (median=1455.955 mean=1548.0068 std=591.0293)

CARB		*Carbohydrate (g)*
N	*Value*	*Description*
15428	Range	20.95 - 748.0271 (median=184.29 mean=198.522 std=85.033)

CARO		*Total Carotenoid (IU)*
N	*Value*	*Description*
15428	Range	41.66 - 144224.3 (median=4900.09 mean=6962.440 std=6627.390)

CERAOFIB		*Cereal Dietary Fiber*
N	*Value*	*Description*
15428	Range	0 - 38.65 (median=3.03 mean=3.511 std=2.348)

CFIB		*Crude Fiber (g)*
N	*Value*	*Description*
15428	Range	0.16 - 22.09 (median=3.94 mean=4.268 std=2.120)

Cohort, Exam 1

CHOL		*Dietary Cholesterol (mg)*
N	*Value*	*Description*
15428	Range	8.03 - 1704.75 (median=227.03 mean=251.888 std=131.252)

COPP		*Copper (mg)*
N	*Value*	*Description*
15428	Range	0.2 - 4.88 (median=1.267143 mean=1.3572282 std=0.5446440)

CT18291		*Cis Trans 18:2 Fat gm, Sacks 1991*
N	*Value*	*Description*
15428	Range	0 - 4.22 (median=0.16 mean=0.194 std=0.143)

DFIB		*Dietary Fiber (g)*
N	*Value*	*Description*
15428	Range	0.78 - 92.48 (median=15.94 mean=17.232 std=8.243)

F100		*Fatty Acid 10:0 (g)*
N	*Value*	*Description*
15428	Range	0 - 2.54 (median=0.23 mean=0.279 std=0.207)

F120		*Fatty Acid 12:0 (g)*
N	*Value*	*Description*
15428	Range	0.01 - 2.91 (median=0.29 mean=0.343 std=0.238)

F140		*Fatty Acid 14:0 (g)*
N	*Value*	*Description*
15428	Range	0.04 - 11.17 (median=1.6 mean=1.82 std=1.06)

F160		*Fatty Acid 16:0 (g)*
N	*Value*	*Description*
15428	Range	0.82 - 51.28 (median=11.08 mean=12.039 std=5.736)

F161		*Fatty Acid 16:1 (g)*
N	*Value*	*Description*
15428	Range	0.1 - 7.63 (median=1.35 mean=1.454 std=0.704)

Cohort, Exam 1

	F180	*Fatty Acid 18:0 (g)*
N	*Value*	*Description*
15428	Range	0.19 - 25.87 (median=5.26 mean=5.776 std=2.949)

	F181	*Fatty Acid 18:1 (g)*
N	*Value*	*Description*
15428	Range	0.91 - 92.04 (median=19.28 mean=20.976 std=10.095)

	F182	*Fatty Acid 18:2 (g)*
N	*Value*	*Description*
15428	Range	0.59 - 54.66 (median=6.95 mean=7.728 std=4.016)

	F183	*Fatty Acid 18:3 (g)*
N	*Value*	*Description*
15428	Range	0.1 - 3.22 (median=0.66 mean=0.715 std=0.304)

	F184	*Fatty Acid 18:4 (g)*
N	*Value*	*Description*
15428	Range	0 - 0.2 (median=0.01 mean=0.010 std=0.010)

	F201	*Fatty Acid 20:1 (g)*
N	*Value*	*Description*
15428	Range	0 - 3.04 (median=0.15 mean=0.180 std=0.147)

	F204	*Fatty Acid 20:4 (g)*
N	*Value*	*Description*
15428	Range	0 - 0.8 (median=0.13 mean=0.136 std=0.068)

	F205	*Fatty Acid 20:5 (g)*
N	*Value*	*Description*
15428	Range	0 - 2.27 (median=0.07 mean=0.094 std=0.097)

	F221	*Fatty Acid 22:1 (g)*
N	*Value*	*Description*
15428	Range	0 - 2.16 (median=0.03 mean=0.058 std=0.085)

Cohort, Exam 1

F225		*Fatty Acid 22:5 (g)*
N	*Value*	*Description*
15428	Range	0 - 0.66 (median=0.02 mean=0.029 std=0.028)

F226		*Fatty Acid 22:6 (g)*
N	*Value*	*Description*
15428	Range	0 - 3.61 (median=0.13 mean=0.183 std=0.172)

F40		*Fatty Acid 4:0 (g)*
N	*Value*	*Description*
15428	Range	0 - 3.24 (median=0.28 mean=0.346 std=0.275)

F60		*Fatty Acid 6:0 (g)*
N	*Value*	*Description*
15428	Range	0 - 2.01 (median=0.16 mean=0.204 std=0.169)

F80		*Fatty Acid 8:0 (g)*
N	*Value*	*Description*
15428	Range	0 - 1.08 (median=0.08 mean=0.099 std=0.082)

FATE		*Animal Fat Without Visible Fat (g)*
N	*Value*	*Description*
15428	Range	0.83 - 182.33 (median=30.27 mean=33.240 std=16.902)

FOLA		*Folate (Micrograms)*
N	*Value*	*Description*
15428	Range	9.86 - 1017.59 (median=213.445 mean=228.9653 std=103.7888)

FRTAOFIB		*Fruit Dietary Fiber*
N	*Value*	*Description*
15428	Range	0 - 70.93 (median=3.41 mean=4.179 std=3.712)

FRUC		*Fructose (g)*
N	*Value*	*Description*
15428	Range	0.04 - 184.8 (median=21.36429 mean=25.103454 std=17.550991)

Cohort, Exam 1

GI		Glycemic Index
N	Value	Description
15428	Range	29.03 - 3574.7 (median=546.24 mean=589.987 std=264.163)

GIB		Glycemic Index, Bread
N	Value	Description
15428	Range	41.39 - 5084.43 (median=778.16 mean=840.331 std=376.153)

GL		Glycemic Load
N	Value	Description
15428	Range	315.29 - 42783.71 (median=9657.005 mean=10456.1699 std=4669.9493)

GLB		Glycemic Load, Bread
N	Value	Description
15428	Range	448.6 - 61044.7 (median=13750.65 mean=14894.539 std=6656.830)

GLU		Glucose gm
N	Value	Description
15428	Range	0.14 - 152.37 (median=19.62 mean=22.551 std=14.621)

GLUT		Glutamic Acid (g)
N	Value	Description
15428	Range	1.82 - 43.29 (median=11.08 mean=11.740 std=4.717)

ID		Participant Identifier
N	Value	Description
15428	Present	Text suppressed

INCLUDE		Inclusion Criteria Variable
N	Value	Description
15428	YES	

IRON		Iron (mg)
N	Value	Description
15428	Range	1.62 - 72.8 (median=10.22 mean=11.082 std=4.843)

Cohort, Exam 1

KAEM		Kaempferol mg, Flavonol
N	Value	Description
15428	Range	0 - 43.92 (median=2.41 mean=3.769 std=5.228)

KEYS		Keys Score
N	Value	Description
15428	Range	4.516035 - 85.83437 (median=42.25677 mean=42.380189 std=9.392539)

LACT		Lactose (g)
N	Value	Description
15428	Range	0 - 132.07 (median=11.305 mean=12.8315 std=12.4028)

LEGAOFIB		Legume Dietary Fiber
N	Value	Description
15428	Range	0 - 21.79 (median=0.88 mean=1.278 std=1.428)

LUT		Lutein And Zeaxanthin mcg
N	Value	Description
15428	Range	0 - 57518.25 (median=1936.685 mean=2723.1067 std=2780.5708)

LUTEOLIN		Luteolin mg, Flavone
N	Value	Description
15428	Range	0 - 0.7 (median=0.01 mean=0.016 std=0.026)

LYCO		Lycopene mcg
N	Value	Description
15428	Range	0 - 79814 (median=1596.28 mean=3292.881 std=4267.951)

MAGN		Magnesium (mg)
N	Value	Description
15428	Range	31.27 - 863.86 (median=240.215 mean=253.4123 std=95.5591)

MANG		Manganese (mg)
N	Value	Description
15428	Range	0.21 - 9.754571 (median=1.894714 mean=2.0986374 std=1.0298970)

Cohort, Exam 1

METH		Methionine (g)
N	Value	Description
15428	Range	0.25 - 6.92 (median=1.6 mean=1.69 std=0.69)

MFAT		Monounsaturated Fatty Acid (g)
N	Value	Description
15428	Range	1.04 - 98.08 (median=21.22 mean=23.058 std=10.910)

MYRI		Myricetin mg, Flavonol
N	Value	Description
15428	Range	0 - 14.8 (median=0.49 mean=0.914 std=1.129)

NIAC		Niacin (mg)
N	Value	Description
15428	Range	2.37 - 87.44 (median=17.43286 mean=18.358855 std=6.858235)

OMEGA		Omega Fatty Acid W20:5 And W22:6 (g)
N	Value	Description
15428	Range	0 - 5.89 (median=0.18 mean=0.252 std=0.262)

PANT		Pantothenic Acid (mg)
N	Value	Description
15428	Range	0.68 - 24.68 (median=3.827357 mean=4.0938555 std=1.7107514)

PFAT		Polyunsaturated Fatty Acid (g)
N	Value	Description
15428	Range	0.86 - 58 (median=8.22 mean=9.031 std=4.348)

PHOS		Phosphorous (mg)
N	Value	Description
15428	Range	174.14 - 3720.69 (median=1011.566 mean=1076.6295 std=431.1920)

POTA		Potassium (mg)
N	Value	Description
15428	Range	382.23 - 9097.44 (median=2504.504 mean=2627.3158 std=980.9718)

Cohort, Exam 1

PROT		*Protein (g)*
N	*Value*	*Description*
15428	Range	13.33 - 267.84 (median=67.475 mean=71.2251 std=27.6696)

P_AFAT		*Animal Fat (%kcal)*
N	*Value*	*Description*
15428	Range	0.753555 - 53.15815 (median=19.70368 mean=19.964879 std=6.228179)

P_ALC		*Alcohol (%kcal)*
N	*Value*	*Description*
15367	Range	0 - 64.3155 (median=0 mean=2.6 std=5.3)
61		Missing

P_CARB		*Carbohydrate (%kcal)*
N	*Value*	*Description*
15428	Range	6.868298 - 94.99254 (median=48.61803 mean=48.853272 std=9.418239)

P_MFAT		*Monounsaturated Fatty Acid (%kcal)*
N	*Value*	*Description*
15428	Range	1.125934 - 27.23942 (median=12.71252 mean=12.622232 std=2.979901)

P_PFAT		*Polyunsaturated Fatty Acid (%kcal)*
N	*Value*	*Description*
15428	Range	0.837006 - 16.25844 (median=4.844219 mean=5.0052769 std=1.4468708)

P_PROT		*Protein (%kcal)*
N	*Value*	*Description*
15428	Range	3.954138 - 48.82601 (median=17.70419 mean=17.919456 std=4.176578)

P_SFAT		*Saturated Fatty Acid (%kcal)*
N	*Value*	*Description*
15428	Range	1.277502 - 29.0341 (median=11.96501 mean=11.988342 std=3.000315)

P_TFAT		*Total Fat (%kcal)*
N	*Value*	*Description*
15428	Range	5.857021 - 62.62002 (median=33.12056 mean=32.850392 std=6.761904)

Cohort, Exam 1

P_VFAT		*Vegetable Fat (%kcal)*
N	*Value*	*Description*
15428	Range	0.301487 - 47.58655 (median=12.45783 mean=12.885513 std=5.050311)

QUER		*Quercetin mg, Flavonol*
N	*Value*	*Description*
15428	Range	0 - 89.58 (median=6.77 mean=8.671 std=7.778)

RETI		*Retinol (IU)*
N	*Value*	*Description*
15428	Range	19.95 - 13513.38 (median=1754.455 mean=2035.7258 std=1378.1857)

SFAT		*Saturated Fatty Acid (g)*
N	*Value*	*Description*
15428	Range	1.18 - 89.6 (median=20.16 mean=21.921 std=10.658)

SODI		*Sodium (mg)*
N	*Value*	*Description*
15428	Range	210.97 - 5214.5 (median=1388.206 mean=1475.3966 std=598.9163)

ST		*Starch gm*
N	*Value*	*Description*
15428	Range	1.29 - 229.55 (median=48.84 mean=52.914 std=25.806)

SUCR		*Sucrose (g)*
N	*Value*	*Description*
15428	Range	0.68 - 342.04 (median=44.73 mean=53.451 std=36.608)

TCAL		*Energy (Kcal)*
N	*Value*	*Description*
15428	Range	500.59 - 4191.56 (median=1530.19 mean=1625.029 std=609.244)

TFAT		*Total Fat (g)*
N	*Value*	*Description*
15428	Range	5.41 - 235.12 (median=55.38 mean=59.804 std=26.975)

Cohort, Exam 1

TOTFLAVO		Total Flavonoids mg
N	Value	Description
15428	Range	0 - 130.15 (median=9.31 mean=13.371 std=13.570)

TR18191		Trans 18:1 Fa Gm, Sacks 1991
N	Value	Description
15428	Range	0.02 - 16.27 (median=2 mean=2.4 std=1.6)

TR18291		Trans Trans 18:2 Fat gm, Sacks 1991
N	Value	Description
15428	Range	0 - 1.64 (median=0.14 mean=0.164 std=0.098)

TRANS91		gm, Sacks 1991
N	Value	Description
15428	Range	0.03 - 22.25 (median=2.49 mean=2.913 std=1.819)

TRYP		Tryptophan (mg)
N	Value	Description
15428	Range	127.37 - 3080.48 (median=778.615 mean=823.6768 std=323.9342)

VEGAOFIB		Vegetable Dietary Fiber
N	Value	Description
15428	Range	0 - 47.22 (median=3.79 mean=4.499 std=3.085)

VFAT		Vegetable Fat (g)
N	Value	Description
15428	Range	0.4 - 205.05 (median=20.84 mean=23.682 std=14.008)

VITA		Total Vitamin A (IU)
N	Value	Description
15428	Range	138.68 - 150692.9 (median=7005.195 mean=8998.2253 std=6965.4284)

VITB1		Thiamine (mg)
N	Value	Description
15428	Range	0.09 - 4.12 (median=1 mean=1.1 std=0.4)

Cohort, Exam 1

VITB12		*Vitamin B12 (Micrograms)*
N	*Value*	*Description*
15428	Range	0.11 - 34.73 (median=6.82 mean=7.648 std=4.421)

VITB2		*Riboflavin (mg)*
N	*Value*	*Description*
15428	Range	0.22 - 7.09 (median=1.43 mean=1.536 std=0.660)

VITB6		*Vitamin B6 (mg)*
N	*Value*	*Description*
15428	Range	0.27 - 7.2 (median=1.63 mean=1.711 std=0.682)

VITC		*Vitamin C (mg)*
N	*Value*	*Description*
15428	Range	2.96 - 981.87 (median=106.24 mean=122.580 std=84.952)

VITD		*Vitamin D (IU)*
N	*Value*	*Description*
15428	Range	2.65 - 2391.83 (median=188.415 mean=219.1525 std=143.0530)

VITE		*Alpha-Tocopherol (mg)*
N	*Value*	*Description*
15428	Range	0.59 - 49.15 (median=4.24 mean=4.854 std=2.964)

ZINC		*Zinc (mg)*
N	*Value*	*Description*
15428	Range	1.47 - 46.91 (median=10.07786 mean=10.755728 std=4.492265)

_16T191		*Trans 16:1 Fat gm, Sacks 1991*
N	*Value*	*Description*
15428	Range	0 - 0.77 (median=0.16 mean=0.169 std=0.085)