



WHI Baseline and Follow-Up Data
Form 60b - Vitamins, Minerals & Carotenoids

Data File: f60b_os_pub **File Date:** 08/03/2007 **Structure:** Multiple rows per participant **Population:** OS participants

Participant ID

Variable # 1 **Usage Notes:** none
Sas Name: ID **Categories:** Study: Administration
Sas Label: Participant ID

F60 Days since randomization/enrollment

Variable # 2 **Usage Notes:** none
Sas Name: F60DAYS **Categories:** Study: Administration
Sas Label: F60 Days since randomization/enrollment

	N	Min	Max	Mean	Std Dev
	177140	-1648	2731	465.08855	644.1739

F60 Visit type

Variable # 3 **Usage Notes:** none
Sas Name: F60VTYP **Categories:** Study: Administration
Sas Label: Visit type

Values	N	%
1 Screening Visit	93,580	52.8%
2 Semi-Annual Visit	16	0.0%
3 Annual Visit	83,533	47.2%
4 Non-Routine Visit	11	0.0%
	177,140	

F60 Visit year

Visit year for which this form was collected.

Variable # 4 **Usage Notes:** none
Sas Name: F60VY **Categories:** Study: Administration
Sas Label: Visit year

	N	Min	Max	Mean	Std Dev
	177129	0	7	1.41457	1.49877

F60 Closest to visit within visit type and year

For forms entered with the same visit type and year, indicates the one closest to that visit's target date. Valid for forms entered with an annual or semi-annual visit type.

Variable # 5 **Usage Notes:** See data preparation document
Sas Name: F60VCLO **Categories:** Study: Administration
Sas Label: Closest to visit within visit type and year

Values	N	%
0 No	281	0.2%
1 Yes	176,859	99.8%
	177,140	



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F60 Expected for visit

This form/data was expected for this visit. Form 60 (FFQ) was expected at Baseline for all CT and OS, for all DM at year 1, for all OS at year 3, and for a subsample of DM in other years.

Variable # 6

Usage Notes: none

Sas Name: F60EXPC

Categories: Study: Administration

Sas Label: Expected for visit

Values		N	%
0	No	342	0.2%
1	Yes	176,798	99.8%
		177,140	

Analysis exclusion consideration status

Variable # 7

Usage Notes: May want to consider excluding participants with a status of 1 or 2 from analyses. The FFQ is suspect in light of the very low or very high value for the Energy (kcal) result.

Sas Name: STATUS

Categories: Computed Variables
Diet: FFQ

Sas Label: Analysis exclusion consideration status

Values		N	%
1	Energy < 600 kcal consider excluding from analyses	6,609	3.7%
2	Energy > 5000 kcal consider excluding from analyses	402	0.2%
3	600 kcal <= Energy <= 5000 kcal	170,129	96.0%
		177,140	

Dietary Vitamin A (RAE)

Vitamin A as retinol activity equivalents (RAE)

Variable # 8

Usage Notes: The 2001 Dietary Reference Intakes (DRI) from the Food and Nutrition Board, Institute of Medicine, National Academy of Sciences give the recommendations using the units Retinol Activity Equivalents (µg/day RAE). Thus, when reporting total vitamin A (food + supplements) RAE is the preferred unit of measure.

Sas Name: F60VITA

Sas Label: Dietary Vitamin A (RAE)

N	Min	Max	Mean	Std Dev
177140	1.77122	24151.814	729.46973	440.24456

RAE Vitamin A = mcg retinol + (mcg beta-carotene equivalents/12)

1 RAE (retinol activity equivalent):
 = 1 mcg all trans retinol
 = 2 mcg supplemental all trans beta-carotene
 = 12 mcg of dietary all trans beta-carotene
 = 24 mcg of other pro-vitamin A carotenoids (alpha-carotene and beta-cryptoxanthin)

Note that beta-carotene equivalents = mcg beta-carotene + 1/2(mcg alpha-carotene + mcg beta-cryptoxanthin). Alpha carotene and beta-cryptoxanthin have about half the activity as beta-carotene.

Categories: Computed Variables
Diet: FFQ



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Dietary Vitamin A (IU)

Total Vitamin A in International Units

Variable # 9

Sas Name: F60VITAIU

Sas Label: Dietary Vitamin A (IU)

N	Min	Max	Mean	Std Dev
177140	7.77074	161813.75	7722.4249	4689.58863

Usage Notes: Historically, International Units were the first measure to combine retinol (preformed vitamin A) and vitamin A from carotenoids into a single measure. While International Units is no longer the preferred unit for dietary assessment it is still included in the dataset because dietary supplement labels still use this terminology.

IU vitamin A = (mcg retinol/0.3) + (mcg beta-carotene equivalents/0.6)

Categories: Computed Variables
Diet: FFQ

Dietary Vitamin A (mcg RE)

Total vitamin A in retinol equivalents (RE)

Variable # 10

Sas Name: F60VITARE

Sas Label: Dietary Vitamin A (mcg RE)

N	Min	Max	Mean	Std Dev
177140	2.16855	27981.994	1046.8178	601.09126

Usage Notes: Retinol equivalents (RE) overestimate the amount of vitamin A activity from carotenoids.

RE Vitamin A = mcg retinol + (mcg beta-carotene equivalents/6)

Categories: Computed Variables
Diet: FFQ

Dietary Retinol (mcg)

Variable # 11

Sas Name: F60RETIN

Sas Label: Dietary Retinol (mcg)

N	Min	Max	Mean	Std Dev
177140	0	22834.770	412.12431	347.97618

Usage Notes: Dietary Retinol (mcg) is preformed vitamin A found only in animal products as all-trans retinol. 1 mcg provides the equivalent of 1 mcg RE or RAE or 3.33 IU. The Dietary Retinol (mcg) variable is acceptable to use if there is interest ONLY in all-trans retinol from animal products.

Categories: Computed Variables
Diet: FFQ

Dietary Thiamin (mg)

Variable # 12

Sas Name: F60THIAM

Sas Label: Dietary Thiamin (mg)

N	Min	Max	Mean	Std Dev
177140	0	16.30899	1.30052	.58912

Usage Notes: none

Categories: Computed Variables
Diet: FFQ

Dietary Riboflavin (mg)

Variable # 13

Sas Name: F60RIBO

Sas Label: Dietary Riboflavin (mg)

N	Min	Max	Mean	Std Dev
177140	0	24.14833	1.90114	.91527

Usage Notes: none

Categories: Computed Variables
Diet: FFQ



WHI Baseline and Follow-Up Data
Form 60b - Vitamins, Minerals & Carotenoids

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Dietary Niacin (mg)

Variable # 14

Usage Notes: none

Sas Name: F60NIACN

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Niacin (mg)

N	Min	Max	Mean	Std Dev
177140	0	262.27056	16.87512	7.91823

Dietary Niacin Equivalents (mg)

Variable # 15

Usage Notes: none

Sas Name: F60NICNEQ

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Niacin Equivalents (mg)

N	Min	Max	Mean	Std Dev
177140	.00066	468.08023	28.71188	13.03009

Dietary Pantothenic Acid (mg)

Variable # 16

Usage Notes: none

Sas Name: F60PANTO

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Pantothenic Acid (mg)

N	Min	Max	Mean	Std Dev
177140	.00016	64.40306	5.10713	2.66499

Dietary Vitamin B6 (mg)

Variable # 17

Usage Notes: none

Sas Name: F60VITB6

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Vitamin B6 (mg)

N	Min	Max	Mean	Std Dev
177140	0	21.47606	1.57151	.70767

Dietary Vitamin B12 (mcg)

Variable # 18

Usage Notes: none

Sas Name: F60VB12

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Vitamin B12 (mcg)

N	Min	Max	Mean	Std Dev
177140	0	229.18048	5.73868	4.04346

Dietary Folic Acid (mcg)

Variable # 19

Usage Notes: none

Sas Name: F60FOLA

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Folic Acid (mcg)

N	Min	Max	Mean	Std Dev
177140	.00756	4854.2113	308.84844	147.65194



WHI Baseline and Follow-Up Data
Form 60b - Vitamins, Minerals & Carotenoids

Data File: f60b_os_pub File Date: 08/03/2007 Structure: Multiple rows per participant Population: OS participants

Dietary Folate Equivalents (mcg)

Variable # 20

Usage Notes: none

Sas Name: F60FLDEQ

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Folate Equivalents (mcg)

N	Min	Max	Mean	Std Dev
177140	.00756	5981.2050	467.72749	217.13329

Dietary Natural Folate (food folate) (mcg)

Variable # 21

Usage Notes: none

Sas Name: F60FLNAT

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Natural Folate (food folate) (mcg)

N	Min	Max	Mean	Std Dev
177140	.00756	3259.3719	231.05639	95.55252

Dietary Synthetic Folate (folic acid) (mcg)

Variable # 22

Usage Notes: none

Sas Name: F60FLSYN

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Synthetic Folate (folic acid) (mcg)

N	Min	Max	Mean	Std Dev
177140	0	1698.4308	139.25158	94.34703

Dietary Vitamin C (mg)

Variable # 23

Usage Notes: none

Sas Name: F60VITC

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Vitamin C (mg)

N	Min	Max	Mean	Std Dev
177140	0	1034.8006	102.70185	57.81076

Dietary Vitamin D (mcg)

Variable # 24

Usage Notes: none

Sas Name: F60VIDD

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Vitamin D (mcg)

N	Min	Max	Mean	Std Dev
177140	0	100.84294	4.36536	3.24127

Dietary Vitamin E (IU)

Variable # 25

Usage Notes: none

Sas Name: F60VTEIU

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Vitamin E (IU)

N	Min	Max	Mean	Std Dev
177140	.03008	127.12879	9.02977	6.11555



WHI Baseline and Follow-Up Data
Form 60b - Vitamins, Minerals & Carotenoids

Data File: f60b_os_pub File Date: 08/03/2007 Structure: Multiple rows per participant Population: OS participants

Dietary Alpha-Tocopherol (mg)

Variable # 26

Usage Notes: none

Sas Name: F60ATOCO

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Alpha-Tocopherol (mg)

N	Min	Max	Mean	Std Dev
177140	.02035	79.34748	5.75651	3.29406

Dietary Total Alpha-Toc Eq (mg)

Variable # 27

Usage Notes: none

Sas Name: F60VITE

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Total Alpha-Toc Eq (mg)

N	Min	Max	Mean	Std Dev
177140	.02382	124.49993	7.74746	5.8226

Dietary Natural Alpha-Tocopherol (mg)

Variable # 28

Usage Notes: none

Sas Name: F60NATOC

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Natural Alpha-Tocopherol (mg)

N	Min	Max	Mean	Std Dev
177140	.02035	79.34748	5.12833	2.41562

Dietary Synthetic Alpha-Tocopherol (mg)

Variable # 29

Usage Notes: none

Sas Name: F60STOCO

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Synthetic Alpha-Tocopherol (mg)

N	Min	Max	Mean	Std Dev
177140	0	104.56192	1.39617	4.87008

Dietary Beta-Tocopherol (mg)

Variable # 30

Usage Notes: none

Sas Name: F60BTOCO

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Beta-Tocopherol (mg)

N	Min	Max	Mean	Std Dev
177140	0	4.89567	.25634	.14232

Dietary Delta-Tocopherol (mg)

Variable # 31

Usage Notes: none

Sas Name: F60DTOCO

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Delta-Tocopherol (mg)

N	Min	Max	Mean	Std Dev
177140	.00032	37.2814	1.9281	1.57334



WHI Baseline and Follow-Up Data
Form 60b - Vitamins, Minerals & Carotenoids

Data File: f60b_os_pub File Date: 08/03/2007 Structure: Multiple rows per participant Population: OS participants

Dietary Gamma-Tocopherol (mg)

Variable # 32

Usage Notes: none

Sas Name: F60GTOCO

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Gamma-Tocopherol (mg)

N	Min	Max	Mean	Std Dev
177140	.00065	259.37596	10.95311	7.84582

Dietary Vitamin K (NDS Value) (mcg)

Variable # 33

Usage Notes: none

Sas Name: F60VITK

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Vitamin K (NDS Value) (mcg)

N	Min	Max	Mean	Std Dev
177140	.5014	1595.307	91.99917	66.64732

Dietary Calcium (mg)

Variable # 34

Usage Notes: none

Sas Name: F60CALC

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Calcium (mg)

N	Min	Max	Mean	Std Dev
177140	.07463	10899.978	802.85503	474.31751

Dietary Copper (mg)

Variable # 35

Usage Notes: none

Sas Name: F60COPPR

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Copper (mg)

N	Min	Max	Mean	Std Dev
177140	.00049	28.88621	1.00658	.51892

Dietary Iron (mg)

Variable # 36

Usage Notes: none

Sas Name: F60IRON

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Iron (mg)

N	Min	Max	Mean	Std Dev
177140	0	184.09623	11.97065	5.75403

Dietary Magnesium (mg)

Variable # 37

Usage Notes: none

Sas Name: F60MAGN

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Magnesium (mg)

N	Min	Max	Mean	Std Dev
177140	.00625	3120.5857	249.55285	103.09768



WHI Baseline and Follow-Up Data
Form 60b - Vitamins, Minerals & Carotenoids

Data File: f60b_os_pub File Date: 08/03/2007 Structure: Multiple rows per participant Population: OS participants

Dietary Manganese (mg)

Variable # 38

Usage Notes: none

Sas Name: F60MANGN

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Manganese (mg)

N	Min	Max	Mean	Std Dev
177140	0	25.71092	3.12986	1.44472

Dietary Phosphorous (mg)

Variable # 39

Usage Notes: none

Sas Name: F60PHOS

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Phosphorous (mg)

N	Min	Max	Mean	Std Dev
177140	.07463	17519.621	1117.8079	536.85477

Dietary Potassium (mg)

Variable # 40

Usage Notes: none

Sas Name: F60POTAS

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Potassium (mg)

N	Min	Max	Mean	Std Dev
177140	.07463	31129.429	2576.354	1044.14904

Dietary Selenium (mcg)

Variable # 41

Usage Notes: none

Sas Name: F60SELEN

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Selenium (mcg)

N	Min	Max	Mean	Std Dev
177140	.00148	1588.0114	85.8067	41.83968

Dietary Sodium (mg)

Variable # 42

Usage Notes: none

Sas Name: F60SODUM

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Sodium (mg)

N	Min	Max	Mean	Std Dev
177140	1.79112	51564.790	2540.6157	1217.86146

Dietary Zinc (mg)

Variable # 43

Usage Notes: none

Sas Name: F60ZINC

Categories: Computed Variables
Diet: FFQ

Sas Label: Dietary Zinc (mg)

N	Min	Max	Mean	Std Dev
177140	.00082	204.95723	10.27532	5.39364



WHI Baseline and Follow-Up Data
Form 60b - Vitamins, Minerals & Carotenoids

Data File: f60b_os_pub File Date: 08/03/2007 Structure: Multiple rows per participant Population: OS participants

Dietary Alpha-Carotene (mcg)

Variable # 44 Usage Notes: none
 Sas Name: F60ACARO Categories: Computed Variables
 Sas Label: Dietary Alpha-Carotene (mcg) Diet: FFQ

N	Min	Max	Mean	Std Dev
177140	0	11552.624	710.35622	576.74918

Dietary Beta-Carotene (mcg)

Variable # 45 Usage Notes: none
 Sas Name: F60BETA Categories: Computed Variables
 Sas Label: Dietary Beta-Carotene (mcg) Diet: FFQ

N	Min	Max	Mean	Std Dev
177140	.49118	62786.709	3377.0741	2350.61528

Dietary Beta-Cryptoxanthin (mcg)

Variable # 46 Usage Notes: none
 Sas Name: F60BCRYP Categories: Computed Variables
 Sas Label: Dietary Beta-Cryptoxanthin (mcg) Diet: FFQ

N	Min	Max	Mean	Std Dev
177140	0	2261.8403	151.9828	97.07316

Dietary Lycopene (mcg)

Variable # 47 Usage Notes: none
 Sas Name: F60LYCO Categories: Computed Variables
 Sas Label: Dietary Lycopene (mcg) Diet: FFQ

N	Min	Max	Mean	Std Dev
177140	0	98105.353	4915.5804	3400.63835

Dietary Lutein+Zeaxanthin (mcg)

Variable # 48 Usage Notes: none
 Sas Name: F60LUTZX Categories: Computed Variables
 Sas Label: Dietary Lutein+Zeaxanthin (mcg) Diet: FFQ

N	Min	Max	Mean	Std Dev
177140	0	40497.090	1859.2742	1656.82355