

IV. Nutritional Examinations

Three days dietary record (3DR)

Foods and nutrition intakes were assessed by the three-consecutive-day weighing dietary records. On this method, foods and dietary supplements were weighed separately with scales before or after cooked. If the subjects did not weigh foods, they asked to record food size by portion. The subjects were asked to take the photos before and after eating foods using disposable camera. The dietary records were checked and coded by nutritionists. The average intakes of food and nutrition per day were calculated according to the 5th edition Standard Tables of Foods Consumption edited by the Science and Technology Agency in Japan and others. The substituted food composition table for Japanese foods were developed by National Cancer Center for the assessment of fatty acid intakes (Sasaki et al., *J Epidemiol*, 9: 190-207, 1999).

Definition and categories of dietary supplement in NLS-LSA

Dietary supplement were defined as any products intended for ingestion as a supplement to the diet from unnatural food forms such as capsules, tablets, or powders, but not from functional foods or modified foods. It contains vitamins, minerals, herbs, botanicals, and other substances such as enzymes, organ tissues, metabolites, concentrates, and constituent extracts of these substances.

Dietary supplement was grouped into seven major categories according to primary nutrient contents. It contains vitamin, mineral, fat, protein, dietary fiber, others, and drug (which contains some nutrients, for example a remedy for the cold which containing vitamin C.)

Dietary supplement frequency questionnaire (DSFQ)

Dietary supplement user was defined as a subject who used one or more dietary supplement one or more times in previous one year.

Three days dietary record

1) Food intake (3DR)

Cereals

Potatoes and starches

Sugars and sweeteners

Pulses

Nuts and seeds

Vegetables
Fruits
Mushrooms
Seaweeds
Fishes and shellfishes
Meats
Eggs
Milks
Fats and oils
Confectioneries
Beverages
Seasonings and spices
Prepared foods

2) Nutrient intake from foods (3DR)

Energy
Water
Protein
Lipid
Carbohydrate
Ash
Sodium
Potassium
Calcium
Magnesium
Phosphorus
Iron
Zinc
Copper
Retinol
Carotene
Retinol equivalents
Vitamin D
Vitamin E
Vitamin K

Thiamin
Riboflavin
Niacin
Vitamin B₆
Vitamin B₁₂
Folate
Pantothenic acid
Vitamin C
Cholesterol
Water soluble dietary fibers
Water insoluble dietary fibers
Total dietary fibers
Salt
Manganese
Nitrogen
Isoleucine
Leucine
Lysine
Methionine
Cystine
Sulfer-containing amino acids
Phenylalanine
Tyrosine
Aromatic amino acids
Threonine
Tryptophan
Valine
Histidine
Alginine
Alanine
Aspartic acid
Glutamic acid
Glycine
Proline
Serine

Total fatty acids
Saturated fatty acids
Monounsaturated fatty acids
Polyunsaturated fatty acids
Unsaturated fatty acids
n-6 fatty acids
n-3 fatty acids
Butyric acid
Hexanoic acid
Octanoic acid
Decanoic acid
Decenoic acid
Lauric acid
Myristic acid
Myristoleic acid
Pentadecanoic acid
Pentadecenoic acid
Palmitic acid
Palmitoleic acid
Hexadecatrienoic acid
Heptadecanoic acid
Heptadecenoic acid
Stearic acid
Oleic acid
Linoleic acid
Linolenic acid
 γ -Linolenic acid
Octadecatetraenic acid
Arachidic acid
Eicosenoic acid
Eicosadienoic acid
Eicosatrienoic acid
Eicosatetraenoic acid
Arachidonic acid
Eicosapentaenoic acid

Behenic acid
Docosenoic acid
Docosadienoic acid
Docosapentaenoic acid (n-3)
Docosapentaenoic acid (n-6)
Docosahexaenoic acid
Lignoceric acid
Tetracosenoic acid
Alcohol

3) Nutrient intake from foods and dietary supplements (3DR)

Energy
Water
Protein
Lipid
Carbohydrate
Ash
Sodium
Potassium
Calcium
Magnesium
Phosphorus
Iron
Zinc
Copper
Retinol
Carotene
Retinol equivalents
Vitamin D
Vitamin E
Vitamin K
Thiamin
Riboflavin
Niacin
Vitamin B₆

Vitamin B₁₂
Folate
Pantothenic acid
Vitamin C
Cholesterol
Water soluble dietary fibers
Water insoluble dietary fibers
Total dietary fibers
Salt
Manganese
Nitrogen
Isoleucine
Leucine
Lysine
Methionine
Cystine
Sulfur-containing amino acids
Phenylalanine
Tyrosine
Aromatic amino acids
Threonine
Tryptophan
Valine
Histidine
Alanine
Aspartic acid
Glutamic acid
Glycine
Proline
Serine
Total fatty acids
Saturated fatty acids
Monounsaturated fatty acids
Polyunsaturated fatty acids

Unsaturated fatty acids
n-6 fatty acids
n-3 fatty acids
Butyric acid
Hexanoic acid
Octanoic acid
Decanoic acid
Decenoic acid
Lauric acid
Myristic acid
Myristoleic acid
Pentadecanoic acid
Pentadecenoic acid
Palmitic acid
Palmitoleic acid
Hexadecatrienoic acid
Heptadecanoic acid
Heptadecenoic acid
Stearic acid
Oleic acid
Linoleic acid
Linolenic acid
 γ -Linolenic acid
Octadecatetraenic acid
Arachidic acid
Eicosenoic acid
Eicosadienoic acid
Eicosatrienoic acid
Eicosatetraenoic acid
Arachidonic acid
Eicosapentaenoic acid
Behenic acid
Docosenoic acid
Docosadienoic acid
Docosapentaenoic acid (n-3)

Docosapentaenoic acid (n-6)

Docosahexaenoic acid

Lignoceric acid

Tetracosenoic acid

Alcohol

4) State of using supplement in previous 1 year (Frequency questionnaire)

5) Number of dietary supplement consumed in the previous 1 year

6) Beverage intakes

Three days dietary record (3DR)

1) Food intake (3DR)

Cereals (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	522.7	149.7	21	526.5	118.5	28	507.8	126.0	42	492.4	142.0	44	442.1	51.8	5	506.6	131.5	140
Female	358.4	62.5	11	354.3	104.0	40	387.7	84.0	37	365.8	76.3	27	544.4	216.0	5	375.5	101.5	120
Total	466.2	148.3	32	425.2	138.7	68	451.5	123.4	79	444.2	135.6	71	493.2	157.6	10	446.1	135.2	260

Potatoes and starches (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	80.4	74.6	21	43.8	32.6	28	54.7	29.9	42	61.4	39.6	44	55.1	37.2	5	58.5	43.8	140
Female	41.2	28.6	11	44.5	39.2	40	45.8	34.7	37	49.9	50.5	27	45.0	54.8	5	45.8	40.0	120
Total	66.9	64.9	32	44.2	36.4	68	50.6	32.3	79	57.0	44.1	71	50.1	44.5	10	52.6	42.5	260

Sugars and sweeteners (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	8.4	8.0	21	8.8	6.1	28	13.7	15.4	42	11.4	8.3	44	7.2	5.2	5	11.0	10.7	140
Female	11.5	19.1	11	13.7	16.1	40	13.7	13.3	37	10.1	7.9	27	11.7	7.3	5	12.6	13.6	120
Total	9.5	12.7	32	11.7	13.1	68	13.7	14.4	79	10.9	8.1	71	9.4	6.4	10	11.7	12.1	260

Pulses (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	90.3	95.3	21	98.7	85.6	28	89.6	48.0	42	92.8	55.6	44	62.4	19.3	5	91.6	66.5	140
Female	41.9	46.9	11	90.8	69.9	40	79.7	54.9	37	96.1	85.7	27	182.4	199.2	5	87.9	79.0	120
Total	73.7	84.3	32	94.1	76.2	68	84.9	51.3	79	94.0	68.0	71	122.4	147.7	10	89.9	72.4	260

Nuts and seeds (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	6.3	16.6	21	5.2	11.1	28	5.4	7.4	42	4.8	6.3	44	0.4	0.5	5	5.1	9.7	140
Female	3.6	4.8	11	5.3	8.1	40	5.2	6.4	37	5.0	6.3	27	0.1	0.2	5	4.8	6.7	120
Total	5.4	13.6	32	5.3	9.3	68	5.3	6.9	79	4.9	6.3	71	0.3	0.4	10	5.0	8.4	260

Vegetables (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	223.0	86.3	21	282.6	126.2	28	336.8	129.7	42	339.1	125.7	44	341.5	164.2	5	309.8	128.9	140
Female	200.5	80.1	11	284.4	111.1	40	336.8	122.9	37	300.1	114.7	27	197.8	101.3	5	292.8	119.1	120
Total	215.3	83.6	32	283.7	116.6	68	336.8	125.7	79	324.3	122.3	71	269.6	149.3	10	301.9	124.5	260

Fruits (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	121.2	105.9	21	136.2	100.3	28	161.9	91.7	42	187.0	146.0	44	104.1	75.5	5	156.5	116.1	140
Female	77.3	90.2	11	172.0	97.4	40	158.7	120.4	37	251.7	146.9	27	117.7	126.9	5	174.9	126.0	120
Total	106.1	101.5	32	157.3	99.4	68	160.4	105.4	79	211.6	148.7	71	110.9	98.7	10	165.0	120.9	260

Mushrooms (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	9.2	8.0	21	16.9	15.8	28	18.5	17.4	42	13.0	15.9	44	13.9	16.2	5	14.9	15.6	140
Female	13.6	11.6	11	13.3	12.8	40	15.9	17.3	37	13.5	16.9	27	14.3	16.5	5	14.2	15.1	120
Total	10.7	9.4	32	14.8	14.1	68	17.3	17.3	79	13.2	16.2	71	14.1	15.4	10	14.6	15.4	260

Seaweeds (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	8.4	7.2	21	8.4	9.5	28	16.1	18.9	42	16.2	18.3	44	7.8	7.4	5	13.2	15.8	140
Female	3.3	4.0	11	23.0	39.7	40	19.4	27.6	37	21.3	38.3	27	19.5	33.0	5	19.5	33.7	120
Total	6.7	6.7	32	17.0	31.7	68	17.7	23.3	79	18.2	27.5	71	13.7	23.4	10	16.1	25.8	260

Fishes and shellfishes (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	101.4	53.6	21	121.8	65.2	28	104.3	52.2	42	102.1	48.4	44	80.1	28.2	5	105.8	53.6	140
Female	83.6	44.8	11	84.5	43.0	40	78.2	37.0	37	82.3	43.3	27	84.9	17.4	5	82.0	40.2	120
Total	95.3	50.8	32	99.8	56.0	68	92.0	47.3	79	94.6	47.2	71	82.5	22.2	10	94.8	49.3	260

Meats (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	81.2	35.6	21	80.9	40.9	28	70.7	37.8	42	50.2	25.5	44	64.1	25.8	5	67.6	36.2	140
Female	58.9	26.6	11	57.0	35.4	40	49.8	31.1	37	51.0	24.8	27	22.4	24.9	5	52.2	31.1	120
Total	73.6	34.1	32	66.8	39.3	68	60.9	36.2	79	50.5	25.0	71	43.3	32.5	10	60.5	34.8	260

Eggs (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	54.6	35.6	21	63.1	30.3	28	60.3	25.8	42	51.6	22.5	44	44.8	37.2	5	56.7	27.9	140
Female	54.0	27.9	11	50.7	21.9	40	46.5	20.7	37	55.1	28.1	27	56.9	33.1	5	51.0	24.0	120
Total	54.4	32.7	32	55.8	26.2	68	53.8	24.4	79	52.9	24.7	71	50.8	33.8	10	54.0	26.3	260

Milks (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	191.2	118.3	21	172.5	158.7	28	141.2	136.9	42	172.5	103.6	44	209.3	40.4	5	167.2	127.2	140
Female	165.5	80.4	11	159.4	105.7	40	162.9	101.6	37	225.0	136.7	27	139.3	165.3	5	175.0	114.4	120
Total	182.4	106.2	32	164.8	129.2	68	151.4	121.4	79	192.5	119.1	71	174.3	119.3	10	170.8	121.3	260

Fats and oils (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	11.7	4.2	21	12.2	6.0	28	11.0	5.4	42	9.9	4.9	44	6.9	3.9	5	10.9	5.2	140
Female	11.2	5.6	11	10.3	4.2	40	10.3	4.5	37	10.9	6.2	27	8.5	5.2	5	10.4	4.9	120
Total	11.5	4.7	32	11.1	5.1	68	10.7	5.0	79	10.3	5.4	71	7.7	4.4	10	10.7	5.1	260

Confectioneries (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	39.2	48.2	21	28.1	35.8	28	36.9	41.8	42	42.0	38.5	44	22.0	31.9	5	36.6	40.2	140
Female	54.5	34.2	11	53.7	42.7	40	40.9	40.7	37	46.7	48.8	27	32.3	24.0	5	47.4	42.2	120
Total	44.5	44.0	32	43.2	41.7	68	38.8	41.1	79	43.8	42.4	71	27.2	27.2	10	41.6	41.4	260

Beverages (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	1434.7	698.2	21	1095.8	569.9	28	1148.8	448.5	42	911.5	393.3	44	635.2	398.0	5	1088.1	530.6	140
Female	906.1	400.5	11	969.6	433.9	40	964.7	419.9	37	799.9	383.3	27	405.3	255.8	5	900.6	422.3	120
Total	1253.0	656.7	32	1021.6	494.4	68	1062.6	442.3	79	869.1	390.6	71	520.3	337.9	10	1001.6	491.7	260

Seasonings and spices (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	65.3	22.7	21	64.3	25.7	28	65.5	20.5	42	64.5	33.1	44	52.8	21.1	5	64.4	26.1	140
Female	61.4	18.1	11	56.4	21.5	40	58.6	21.3	37	55.9	19.2	27	48.3	15.3	5	57.1	20.3	120
Total	63.9	21.0	32	59.7	23.5	68	62.3	21.0	79	61.2	28.8	71	50.6	17.5	10	61.1	23.9	260

Prepared foods (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	72.3	81.8	21	48.0	71.3	28	34.4	49.7	42	19.8	36.3	44	57.4	57.6	5	39.0	59.2	140
Female	19.1	19.9	11	29.0	51.1	40	19.5	36.5	37	57.8	74.1	27	115.7	89.3	5	35.2	57.1	120
Total	54.1	71.4	32	36.8	60.5	68	27.4	44.4	79	34.2	56.5	71	86.6	77.2	10	37.3	58.2	260

2) Nutrition intake from foods (3DR)

Energy (kcal)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	2336.1	508.0	21	2410.2	350.6	28	2266.4	311.1	42	2136.7	396.3	44	1854.7	184.2	5	2250.2	393.9	140
Female	1745.3	309.0	11	1818.9	310.9	40	1856.2	226.5	37	1834.1	264.1	27	1877.9	467.6	5	1829.5	280.7	120
Total	2133.0	527.8	32	2062.4	437.9	68	2074.3	342.0	79	2021.6	379.8	71	1866.3	335.3	10	2056.0	404.5	260

Protein (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	84.6	17.4	21	89.2	14.2	28	86.9	16.1	42	81.7	17.9	44	72.0	6.5	5	84.8	16.5	140
Female	65.7	11.6	11	68.1	13.7	40	69.0	12.5	37	73.2	12.3	27	65.1	10.8	5	69.2	12.7	120
Total	78.1	17.9	32	76.8	17.3	68	78.5	17.0	79	78.4	16.4	71	68.5	9.2	10	77.6	16.8	260

Lipid (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	62.0	15.8	21	66.5	15.2	28	57.6	15.1	42	51.3	12.6	44	44.6	7.3	5	57.6	15.4	140
Female	52.5	12.1	11	54.1	15.4	40	51.7	12.7	37	53.5	11.1	27	39.9	14.3	5	52.5	13.4	120
Total	58.7	15.1	32	59.2	16.4	68	54.8	14.2	79	52.1	12.0	71	42.2	11.0	10	55.2	14.7	260

Carbohydrate (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	306.8	71.6	21	318.6	56.5	28	313.7	47.9	42	312.4	62.2	44	275.0	32.8	5	311.9	57.7	140
Female	233.9	44.5	11	259.4	42.9	40	270.7	37.6	37	262.4	44.9	27	305.3	87.1	5	263.1	45.5	120
Total	281.8	72.0	32	283.8	56.8	68	293.6	48.3	79	293.4	61.0	71	290.1	64.0	10	289.4	57.7	260

Ash (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	19.4	4.7	21	19.8	3.2	28	21.6	3.7	42	20.2	4.0	44	17.6	2.8	5	20.3	3.9	140
Female	16.3	3.2	11	17.7	2.8	40	18.1	2.9	37	19.2	4.1	27	16.7	2.0	5	18.0	3.2	120
Total	18.3	4.5	32	18.6	3.1	68	20.0	3.8	79	19.8	4.1	71	17.1	2.3	10	19.3	3.8	260

Sodium (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	4759	1207	21	4917	832	28	5024	939	42	4706	1080	44	4181	561	5	4833	1004	140
Female	3898	686	11	4044	717	40	4128	622	37	4230	758	27	4026	564	5	4098	686	120
Total	4463	1124	32	4404	875	68	4604	919	79	4525	992	71	4103	536	10	4494	945	260

Potassium (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	2674	771	21	2685	612	28	2985	656	42	2981	665	44	2454	576	5	2858	677	140
Female	2066	468	11	2565	553	40	2684	599	37	2801	736	27	2313	288	5	2598	624	120
Total	2465	735	32	2614	577	68	2844	644	79	2913	693	71	2384	436	10	2738	665	260

Calcium (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	569.9	159.9	21	570.2	179.6	28	688.8	250.2	42	685.8	242.9	44	537.4	140.1	5	640.9	225.2	140
Female	460.3	124.6	11	569.2	177.4	40	605.6	250.6	37	674.1	238.1	27	593.3	246.0	5	595.0	220.0	120
Total	532.3	155.9	32	569.6	177.0	68	649.9	252.2	79	681.3	239.5	71	565.4	191.0	10	619.7	223.6	260

Magnesium (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	298.0	81.0	21	306.3	59.8	28	328.2	60.9	42	322.2	82.8	44	263.1	31.4	5	315.1	71.5	140
Female	226.4	35.8	11	265.9	58.4	40	278.6	56.2	37	290.2	72.4	27	242.6	34.8	5	270.7	60.8	120
Total	273.4	76.4	32	282.5	61.8	68	305.0	63.5	79	310.0	80.0	71	252.9	33.1	10	294.6	70.2	260

Phosphorus (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	1226	274	21	1260	223	28	1315	270	42	1253	299	44	1009	124	5	1260	271	140
Female	960	208	11	1015	182	40	1061	219	37	1148	240	27	1001	132	5	1053	213	120
Total	1135	280	32	1116	232	68	1196	277	79	1213	281	71	1005	121	10	1165	266	260

Iron (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	8.4	2.3	21	9.4	1.5	28	9.8	1.9	42	10.2	2.9	44	8.0	2.0	5	9.6	2.4	140
Female	6.8	1.0	11	8.3	2.2	40	8.6	2.2	37	9.2	2.5	27	8.6	0.9	5	8.4	2.2	120
Total	7.9	2.1	32	8.7	2.0	68	9.3	2.1	79	9.8	2.8	71	8.3	1.5	10	9.1	2.3	260

Zinc (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	8.9	2.1	21	9.7	1.9	28	9.6	2.0	42	9.3	2.4	44	8.8	0.4	5	9.4	2.1	140
Female	7.0	1.5	11	7.5	1.6	40	7.9	1.3	37	8.2	1.4	27	7.7	1.8	5	7.7	1.5	120
Total	8.2	2.1	32	8.4	2.0	68	8.8	1.9	79	8.9	2.2	71	8.2	1.3	10	8.6	2.0	260

Copper (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	1.36	0.39	21	1.49	0.43	28	1.45	0.29	42	1.46	0.37	44	1.36	0.24	5	1.44	0.36	140
Female	0.98	0.17	11	1.16	0.22	40	1.24	0.26	37	1.34	0.31	27	1.22	0.24	5	1.21	0.27	120
Total	1.23	0.38	32	1.29	0.36	68	1.35	0.29	79	1.41	0.35	71	1.29	0.24	10	1.34	0.34	260

Retinol (μ g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	189	123	21	348	720	28	250	227	42	314	337	44	203	242	5	279	397	140
Female	147	51	11	169	134	40	178	153	37	436	683	27	197	209	5	231	359	120
Total	175	105	32	243	477	68	216	198	79	361	496	71	200	213	10	257	380	260

Carotene (μg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	3159	1726	21	3131	1825	28	3968	1868	42	3965	1784	44	3346	2116	5	3656	1837	140
Female	2057	508	11	3596	1930	40	3800	1798	37	3791	1988	27	2075	1053	5	3499	1857	120
Total	2780	1513	32	3405	1888	68	3889	1826	79	3899	1852	71	2711	1712	10	3583	1845	260

Retinol equivalents (μg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	719	312	21	868	789	28	909	330	42	977	402	44	759	449	5	888	480	140
Female	489	107	11	766	357	40	810	351	37	1067	819	27	543	276	5	813	507	120
Total	640	280	32	808	572	68	863	341	79	1011	592	71	651	369	10	854	493	260

Vitamin D (μg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	8.6	7.0	21	11.3	6.1	28	11.7	5.7	42	10.3	6.8	44	5.5	5.0	5	10.5	6.4	140
Female	7.0	4.5	11	8.0	5.3	40	7.0	4.8	37	7.9	5.0	27	10.8	9.7	5	7.7	5.2	120
Total	8.1	6.2	32	9.3	5.8	68	9.5	5.7	79	9.4	6.3	71	8.1	7.8	10	9.2	6.0	260

Vitamin E (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	8.9	3.0	21	10.0	3.1	28	9.5	2.4	42	9.1	2.2	44	8.1	0.6	5	9.3	2.6	140
Female	7.5	2.2	11	8.8	2.0	40	9.0	2.7	37	9.6	2.9	27	6.9	1.7	5	8.8	2.5	120
Total	8.4	2.8	32	9.3	2.6	68	9.2	2.5	79	9.3	2.5	71	7.5	1.3	10	9.1	2.5	260

Vitamin K (μg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	201	103	21	217	128	28	276	142	42	269	178	44	280	146	5	251	148	140
Female	150	74	11	205	101	40	197	88	37	239	164	27	140	106	5	203	115	120
Total	183	96	32	210	112	68	239	125	79	258	172	71	210	141	10	229	136	260

Vitamin B1 (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	1.00	0.31	21	0.95	0.20	28	1.04	0.24	42	0.94	0.23	44	0.86	0.18	5	0.98	0.24	140
Female	0.76	0.16	11	0.82	0.20	40	0.85	0.21	37	0.95	0.33	27	0.75	0.12	5	0.85	0.24	120
Total	0.92	0.29	32	0.87	0.21	68	0.95	0.24	79	0.94	0.27	71	0.81	0.16	10	0.92	0.25	260

Vitamin B2 (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	1.37	0.38	21	1.40	0.31	28	1.44	0.39	42	1.44	0.37	44	1.26	0.49	5	1.41	0.36	140
Female	1.09	0.13	11	1.22	0.24	40	1.24	0.31	37	1.41	0.35	27	1.03	0.30	5	1.25	0.30	120
Total	1.27	0.34	32	1.29	0.28	68	1.34	0.36	79	1.43	0.36	71	1.14	0.40	10	1.34	0.35	260

Niacin (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	19.6	6.0	21	21.2	5.7	28	20.0	4.9	42	18.0	5.2	44	14.3	4.2	5	19.3	5.4	140
Female	13.9	4.4	11	15.1	4.4	40	15.0	4.0	37	14.5	4.9	27	11.5	3.0	5	14.7	4.3	120
Total	17.7	6.1	32	17.6	5.8	68	17.6	5.1	79	16.6	5.3	71	12.9	3.7	10	17.2	5.5	260

Vitamin B6 (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	1.35	0.46	21	1.40	0.37	28	1.46	0.31	42	1.45	0.41	44	1.20	0.35	5	1.42	0.38	140
Female	0.97	0.27	11	1.16	0.31	40	1.21	0.29	37	1.22	0.38	27	0.99	0.39	5	1.16	0.33	120
Total	1.22	0.44	32	1.26	0.35	68	1.34	0.33	79	1.36	0.41	71	1.10	0.36	10	1.30	0.38	260

Vitamin B12 (μg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	7.2	4.0	21	10.7	5.3	28	8.3	4.5	42	8.9	6.0	44	4.7	0.3	5	8.7	5.2	140
Female	4.7	2.5	11	6.3	2.9	40	5.8	3.1	37	7.8	4.6	27	8.8	2.0	5	6.4	3.5	120
Total	6.3	3.7	32	8.1	4.6	68	7.1	4.1	79	8.5	5.5	71	6.7	2.6	10	7.6	4.6	260

Folate (μg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	295	96	21	323	95	28	358	95	42	371	108	44	337	132	5	345	103	140
Female	237	54	11	295	79	40	320	91	37	370	117	27	272	86	5	313	97	120
Total	275	87	32	307	86	68	340	94	79	371	110	71	305	111	10	330	101	260

Pantothenic Acid (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	6.20	1.54	21	6.45	1.66	28	6.47	1.36	42	6.53	1.53	44	5.68	1.24	5	6.41	1.49	140
Female	4.88	0.84	11	5.24	1.04	40	5.53	0.99	37	6.30	1.43	27	4.82	0.75	5	5.52	1.18	120
Total	5.75	1.47	32	5.74	1.45	68	6.03	1.28	79	6.44	1.49	71	5.25	1.06	10	6.00	1.43	260

Vitamin C (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	96.7	52.9	21	123.9	106.8	28	117.1	50.2	42	121.3	55.2	44	103.7	70.4	5	116.3	67.3	140
Female	61.9	20.9	11	118.3	74.2	40	121.5	73.3	37	125.1	53.5	27	70.7	32.7	5	113.6	67.2	120
Total	84.7	47.2	32	120.6	88.4	68	119.2	61.8	79	122.7	54.2	71	87.2	54.6	10	115.0	67.1	260

Cholesterol (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	368.7	157.2	21	438.2	145.4	28	392.3	137.1	42	362.5	140.7	44	274.4	142.8	5	384.4	145.4	140
Female	313.3	65.8	11	297.7	76.2	40	310.9	109.5	37	360.1	136.2	27	243.7	95.6	5	315.0	105.1	120
Total	349.7	134.4	32	355.6	129.4	68	354.2	130.7	79	361.6	138.0	71	259.0	115.7	10	352.3	132.7	260

Water soluble dietary fibers (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	3.2	1.1	21	3.4	1.1	28	3.9	1.0	42	4.0	1.0	44	3.5	1.0	5	3.7	1.1	140
Female	3.0	0.8	11	3.5	1.0	40	3.7	1.1	37	3.6	1.1	27	2.4	0.6	5	3.5	1.0	120
Total	3.1	1.0	32	3.4	1.0	68	3.8	1.0	79	3.9	1.1	71	3.0	1.0	10	3.6	1.1	260

Water insoluble dietary fibers (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	9.3	3.2	21	10.2	2.7	28	12.2	2.9	42	12.5	2.9	44	10.7	1.6	5	11.4	3.1	140
Female	8.7	2.1	11	10.5	2.4	40	11.4	2.6	37	11.3	3.2	27	8.9	2.1	5	10.7	2.8	120
Total	9.1	2.8	32	10.4	2.5	68	11.8	2.8	79	12.1	3.1	71	9.8	2.0	10	11.1	3.0	260

Total dietary fibers (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	13.1	4.1	21	14.3	3.7	28	16.9	3.8	42	17.6	3.9	44	15.2	2.8	5	16.0	4.2	140
Female	12.1	2.8	11	14.9	3.6	40	16.2	3.8	37	15.7	4.5	27	12.4	2.6	5	15.1	3.9	120
Total	12.8	3.7	32	14.6	3.6	68	16.6	3.8	79	16.9	4.2	71	13.8	3.0	10	15.6	4.1	260

Salt (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	12.0	3.1	21	12.2	2.1	28	12.6	2.4	42	11.7	2.7	44	10.4	1.5	5	12.1	2.5	140
Female	9.8	1.7	11	10.1	1.8	40	10.3	1.5	37	10.6	1.9	27	9.9	1.5	5	10.2	1.7	120
Total	11.2	2.9	32	11.0	2.2	68	11.5	2.3	79	11.3	2.5	71	10.1	1.4	10	11.2	2.4	260

Manganese (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	4.29	1.89	21	3.91	0.89	28	4.41	1.32	42	4.26	1.41	44	3.72	1.54	5	4.22	1.38	140
Female	2.86	0.73	11	3.86	1.38	40	3.91	1.23	37	3.75	1.02	27	3.76	1.41	5	3.75	1.22	120
Total	3.80	1.72	32	3.88	1.19	68	4.17	1.29	79	4.07	1.29	71	3.74	1.39	10	4.00	1.33	260

Nitrogen (g)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	10.9	2.6	21	11.9	2.3	28	11.6	2.2	42	10.9	2.8	44	9.5	0.6	5	11.2	2.5	140
Female	9.1	1.7	11	9.4	2.0	40	9.3	1.8	37	9.8	2.1	27	8.0	1.3	5	9.4	1.9	120
Total	10.3	2.4	32	10.4	2.4	68	10.5	2.3	79	10.5	2.6	71	8.7	1.2	10	10.4	2.4	260

Isoleucine (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	3499	821	21	3739	673	28	3652	737	42	3416	822	44	3074	386	5	3552	763	140
Female	2759	543	11	2862	611	40	2923	544	37	3168	587	27	2797	546	5	2937	583	120
Total	3245	811	32	3223	768	68	3310	746	79	3322	747	71	2935	469	10	3268	750	260

Leucine (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	6124	1395	21	6515	1149	28	6356	1280	42	5968	1403	44	5343	640	5	6195	1308	140
Female	4838	944	11	4990	1032	40	5087	915	37	5505	998	27	4903	922	5	5118	986	120
Total	5682	1389	32	5618	1313	68	5762	1286	79	5792	1277	71	5123	783	10	5698	1286	260

Lysine (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	5116	1406	21	5530	1194	28	5380	1249	42	4933	1362	44	4516	581	5	5199	1295	140
Female	3960	994	11	4098	1013	40	4130	900	37	4568	937	27	3968	963	5	4196	965	120
Total	4719	1381	32	4688	1294	68	4795	1260	79	4794	1224	71	4242	803	10	4736	1257	260

Methionine (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	1862	467	21	2014	400	28	1928	439	42	1786	458	44	1597	233	5	1879	443	140
Female	1451	311	11	1472	328	40	1492	298	37	1618	303	27	1458	293	5	1508	311	120
Total	1720	460	32	1695	446	68	1724	436	79	1722	412	71	1527	260	10	1708	429	260

Cystine (mg)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N									
Male	1247	268	21	1316	225	28	1293	226	42	1241	250	44	1061	141	5	1266	240	140
Female	1008	124	11	1026	177	40	1063	171	37	1113	178	27	1007	165	5	1055	172	120
Total	1165	254	32	1146	243	68	1185	232	79	1193	233	71	1034	147	10	1168	236	260