

Table S1. Mean and SD of nutrient intakes in the current study and the Japan National Health and Nutrition Study 2016*

Nutrients	Current Study (n=131)		National Health and Nutrition Survey Japan 2016 (n=26,133)
	Mean ^a	SD	Mean
Energy kcal	1846	354	1865
Protein g	69.9	15.0	68.5
Lipid g	56.5	15.9	57.2
SFA ^b g	15.65	4.99	15.74
MUSFA ^c g	20.51	6.52	19.70
PUFA ^d g	12.34	3.31	NA
n-3PUFA g	2.35	0.87	2.16
n-6PUFA g	9.94	2.71	9.16
Cholesterol mg	322	107	311
Carbohydrate g	247	49	253
Total fiber g	15.4	4.8	14.2
Soluble fiber g	3.4	1.2	3.3
Insoluble fiber g	11.3	3.5	10.3
Alcohol ^e g	7.5	14.6	5.0*
Vitamin A µgRE ^f	561	353	524
Vitamin D µg	7.9	4.2	7.5
alpha-Tocopherol mg	7.1	1.9	6.4
Vitamin K µg	232	103	225
Vitamin B1 mg	0.94	0.21	0.86
Vitamin B2 mg	1.39	0.35	1.15
Niacin mgNE ^g	30.9	7.2	14.4
Vitamin B6 mg	1.34	0.37	1.11
Vitamin B12 µg	6.5	3.3	6.0
Folate µg	410	128	277
Pantothenic acid mg	6.08	1.39	5.45
Vitamin C mg	143	55	89
Sodium mg	3624	856	3770
Salt-Eq g	9.1	2.2	9.6
Potassium mg	2794	732	2219
Calcium mg	538	164	502
Magnesium mg	278	67	238
Phosphorus mg	1035	232	976
Iron mg	8.7	2.3	7.4
Selenium µg	62	18	NA
Zinc mg	7.9	1.7	8.0
Copper mg	1.21	0.30	1.11
Manganese mg	4.35	1.29	NA
beta-carotene µg	3469	1696	NA
alpha-carotene µg	563	350	NA
beta-cryptoxanthin µg	528.4	442.7	NA
% energy intake from carbohydrate	53.5		54.2
% energy intake from protein	15.2		14.7
% energy intake from lipid	27.5		27.6

*The data in this study was collected between 2014 and 2015 in Nagasaki Prefecture, Japan. The title of this study is “Reliability of repeated measures of nutrient intake by diet records in residents in the western region of Japan.”

^aMeans of 1571 diet records: an average of 12 records per participant

^bSaturated fatty acid

^cMonounsaturated fatty acid

^dPolyunsaturated fatty acid

^eThe total alcohol intake in ethanol in gram was estimated from the total alcohol (ethanol) intake of beverages (beer, saki wine, and liquor and others) reported in the NHNS 2016.

^fRetinol equivalent

^gNiacin equivalent

^aOne participant completed 11 diet records.

^bSaturated fatty acid

^cMonounsaturated fatty acid

^dPolyunsaturated fatty acid

^eRetinol equivalent

^fNiacin equivalent

Table S3. Sex-specific Intraclass Correlation Coefficients (ICC) and the ratio of within- to between person variance (σ_w^2/σ_b^2) for intakes of energy-adjusted nutrients*^a

Nutrients	Male (n=33)				Female (n=98)			
	Mean ^b	SD	ICC (95%CI)	R _{w/b}	Mean ^c	SD	ICC (95%CI)	R _{w/b}
Energy kcal	2091	369	0.40 (0.28, 0.54)	1.5	1764	310	0.46 (0.38, 0.54)	1.2
Protein g	77.5	16.3	0.32 (0.20, 0.46)	2.1	67.4	13.7	0.28 (0.22, 0.36)	2.6
Lipid g	62.3	15.9	0.37 (0.25, 0.51)	1.7	54.6	15.6	0.25 (0.19, 0.33)	3.0
SFA ^d g	16.85	4.91	0.35 (0.23, 0.49)	1.9	15.25	4.97	0.27 (0.21, 0.35)	2.7
MSFA ^e g	23.03	6.78	0.32 (0.20, 0.45)	2.1	19.67	6.24	0.25 (0.19, 0.32)	3.0
PUFA ^f g	13.82	3.21	0.15 (0.08, 0.28)	5.7	11.84	3.20	0.14 (0.09, 0.20)	6.1
n-6PUFA g	2.78	0.93	0.15 (0.08, 0.27)	5.7	2.21	0.80	0.13 (0.09, 0.19)	6.7
n-3PUFA g	10.99	2.66	0.09 (0.04, 0.21)	10.1	9.59	2.64	0.14 (0.10, 0.20)	6.1
Cholesterol mg	375	127	0.22 (0.13, 0.35)	3.5	305	93	0.10 (0.06, 0.16)	9.0
Carbohydrates g	261	65	0.47 (0.34, 0.61)	1.1	242	42	0.29 (0.22, 0.37)	2.4
Total fiber g	14.2	5.7	0.54 (0.40, 0.67)	0.9	15.8	4.4	0.42 (0.34, 0.50)	1.4
Soluble fiber g	3.0	1.3	0.48 (0.35, 0.61)	1.1	3.5	1.1	0.25 (0.19, 0.32)	3.0
Insoluble fiber g	10.5	4.4	0.54 (0.41, 0.67)	0.9	11.5	3.2	0.40 (0.33, 0.48)	1.5
vitamin A μgRE^g	547	409	0.07 (0.03, 0.18)	13.3	566	335	0.01 (0.00, 0.12)	99.0
Vitamin D μg	9.6	5.3	0.11 (0.05, 0.22)	8.1	7.3	3.6	0.03 (0.01, 0.08)	32.3
alpha-Tocopherol mg	7.1	2.0	0.25 (0.15, 0.38)	3.0	7.1	1.8	0.21 (0.15, 0.28)	3.8
Vitamin K μg	230	106	0.29 (0.18, 0.43)	2.4	232	103	0.33 (0.26, 0.41)	2.0
Vitamin B ₁ mg	0.98	0.22	0.11 (0.05, 0.22)	8.1	0.92	0.2	0.12 (0.08, 0.18)	7.3
Vitamin B ₂ mg	1.42	0.36	0.24 (0.14, 0.38)	3.2	1.37	0.35	0.32 (0.25, 0.40)	2.1
Niacin mgNE ^h	35.8	8.2	0.29 (0.18, 0.43)	2.4	29.3	6.1	0.19 (0.14, 0.26)	4.3
Vitamin B ₆ mg	1.44	0.44	0.46 (0.33, 0.60)	1.2	1.31	0.34	0.37 (0.30, 0.45)	1.7
Vitamin B ₁₂ μg	7.4	4.2	0.16 (0.08, 0.28)	5.3	6.2	2.9	0.05 (0.02, 0.10)	19.0
Folate μg	399	154	0.41 (0.28, 0.55)	1.4	413	118	0.30 (0.24, 0.38)	2.3
Pantothenic acid mg	6.34	1.59	0.37 (0.25, 0.52)	1.7	5.99	1.32	0.29 (0.22, 0.36)	2.4
Vitamin C mg	126	58	0.40 (0.27, 0.54)	1.5	149	53	0.35 (0.28, 0.43)	1.9
Sodium mg	3880	940	0.23 (0.14, 0.36)	3.3	3538	812	0.22 (0.16, 0.29)	3.5
Salt-Eq g	9.8	2.4	0.22 (0.13, 0.35)	3.5	8.9	2.1	0.22 (0.16, 0.29)	3.5
Potassium mg	2770	811	0.51 (0.38, 0.64)	1.0	2803	707	0.48 (0.41, 0.56)	1.1
Calcium mg	487	170	0.36 (0.24, 0.50)	1.8	555	159	0.28 (0.21, 0.36)	2.6
Magnesium mg	286	69	0.20 (0.11, 0.33)	4.0	275	66	0.29 (0.22, 0.37)	2.4
Phosphorus mg	1100	252	0.40 (0.27, 0.54)	1.5	1013	222	0.35 (0.27, 0.43)	1.9
Iron mg	8.8	2.7	0.44 (0.31, 0.58)	1.3	8.7	2.2	0.31 (0.24, 0.39)	2.2
Selenium μg	69	19	0.06 (0.02, 0.17)	15.7	59	17	0.07 (0.04, 0.13)	13.3
Zinc mg	8.7	1.9	0.20 (0.11, 0.33)	4.0	7.7	1.5	0.16 (0.11, 0.23)	5.3
Copper mg	1.27	0.37	0.19 (0.11, 0.32)	4.3	1.19	0.27	0.33 (0.26, 0.41)	2.0
Manganese mg	4.32	1.48	0.42 (0.30, 0.56)	1.4	4.36	1.22	0.45 (0.37, 0.53)	1.2
beta-Carotene μg	3362	1995	0.23 (0.14, 0.37)	3.3	3504	1594	0.24 (0.18, 0.32)	3.2
alpha-Carotene μg	593	461	0.06 (0.02, 0.17)	15.7	554	305	0.02 (0.00, 0.09)	49.0
beta-Cryptoxanthin μg	319	366	0.15 (0.08, 0.27)	5.7	599	446	0.03 (0.01, 0.08)	32.3

*The data in this study was collected between 2014 and 2015 in Nagasaki Prefecture, Japan. The title of this study is “Reliability of repeated measures of nutrient intake by diet records in residents in the western region of Japan.”

^aAdjustment by use of the residual model method

^bMean of 395 diet records obtained from 33 male participants

^cMeans of 1176 diet records obtained from 98 female participants

^dSaturated fatty acid

^eMonounsaturated fatty acid

^fPolyunsaturated fatty acid

^gRetinol equivalent

^hNiacin equivalent

Table S4. Coefficients of within-person variation and the number of days needed to lie within specified 10% of the true mean of energy-adjusted nutrients*^a

Nutrients	Male (n=33)		Female (n=98)	
	CV _w (95% CI) ^b	Specified limit	CV _w (95% CI) ^c	Specified limit
		as %		as %
		10%		10%
Protein g	0.18 (0.17, 0.20)	13	0.17 (0.16, 0.18)	12
Lipid g	0.24 (0.22, 0.27)	23	0.23 (0.22, 0.24)	21
SFA ^d g	0.33 (0.29, 0.37)	42	0.31 (0.29, 0.33)	37
MSFA ^e g	0.32 (0.29, 0.36)	40	0.30 (0.29, 0.32)	35
PUFA ^f g	0.28 (0.26, 0.31)	31	0.32 (0.30, 0.34)	40
n-6PUFA g	0.33 (0.30, 0.36)	42	0.34 (0.33, 0.36)	45
n-3PUFA g	0.57 (0.51, 0.63)	125	0.55 (0.51, 0.58)	117
Cholesterol mg	0.45 (0.40, 0.51)	78	0.49 (0.46, 0.52)	93
Carbohydrates g	0.15 (0.14, 0.16)	9	0.12 (0.12, 0.13)	6
Total fiber g	0.30 (0.26, 0.35)	35	0.26 (0.25, 0.28)	26
Soluble fiber g	0.36 (0.32, 0.42)	50	0.41 (0.38, 0.44)	65
Insoluble fiber g	0.31 (0.27, 0.36)	37	0.27 (0.25, 0.29)	29
vitamin A µgRE ^g	1.32 (1.09, 1.61)	670	1.67 (1.49, 1.86)	1072
Vitamin D µg	1.11 (0.92, 1.34)	474	1.41 (1.27, 1.56)	764
alpha-Tocopherol mg	0.33 (0.30, 0.36)	42	0.32 (0.31, 0.34)	40
Vitamin K µg	0.62 (0.52, 0.73)	148	0.56 (0.51, 0.62)	121
Vitamin B ₁ mg	0.38 (0.34, 0.41)	56	0.31 (0.30, 0.33)	37
Vitamin B ₂ mg	0.26 (0.24, 0.29)	26	0.25 (0.23, 0.26)	25
Niacin mgNE ^h	0.23 (0.21, 0.25)	21	0.23 (0.21, 0.24)	21
Vitamin B ₆ mg	0.24 (0.22, 0.27)	23	0.24 (0.23, 0.26)	23
Vitamin B ₁₂ µg	0.89 (0.75, 1.06)	305	1.33 (1.20, 1.48)	680
Folate µg	0.35 (0.31, 0.39)	48	0.34 (0.32, 0.36)	45
Pantothenic acid mg	0.20 (0.19, 0.22)	16	0.21 (0.20, 0.22)	17
Vitamin C mg	0.46 (0.39, 0.54)	82	0.39 (0.37, 0.43)	59
Sodium mg	0.31 (0.28, 0.34)	37	0.28 (0.27, 0.30)	31
Salt-Eq g	0.32 (0.29, 0.35)	40	0.29 (0.27, 0.30)	33
Potassium mg	0.21 (0.19, 0.23)	17	0.19 (0.18, 0.21)	14
Calcium mg	0.36 (0.32, 0.41)	50	0.32 (0.31, 0.35)	40
Magnesium mg	0.30 (0.27, 0.33)	35	0.25 (0.24, 0.27)	25
Phosphorus mg	0.18 (0.16, 0.20)	13	0.17 (0.16, 0.18)	12
Iron mg	0.23 (0.21, 0.26)	21	0.26 (0.25, 0.28)	26
Selenium µg	0.50 (0.45, 0.55)	97	0.50 (0.47, 0.53)	97
Zinc mg	0.22 (0.20, 0.24)	19	0.23 (0.22, 0.24)	21
Copper mg	0.37 (0.34, 0.42)	53	0.21 (0.20, 0.22)	17
Manganese mg	0.28 (0.25, 0.31)	31	0.26 (0.24, 0.28)	26
beta-carotene µg	0.85 (0.70, 1.03)	278	0.68 (0.61, 0.74)	178

alpha-carotene µg	1.99 (1.51, 2.61)	1522	2.57 (2.18, 3.03)	2538
beta-cryptoxanthin µg	2.10 (1.45, 3.06)	1695	2.37 (2.00, 2.79)	2158

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