

Validation of the Web-Based Self-Administered 24-h Dietary Recall myfood24-Germany: comparison with a weighed dietary record and biomarkers

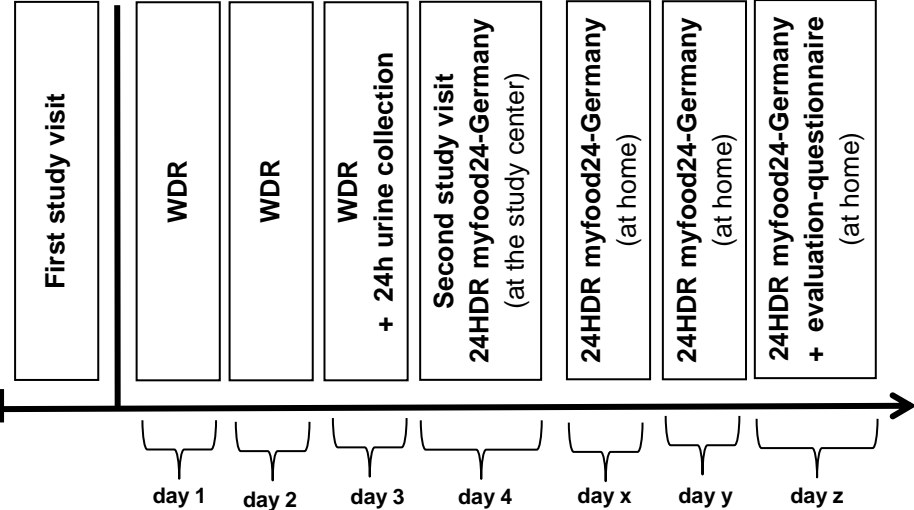
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Supplementary Material



Online Resource 1 Study design overview (WDR=Weighed Dietary Record, 24HDR=24-hour Recall)

Supplementary Material

Online Resource 2 Mean energy and nutrient intake assessed by 380 24-hour recalls with myfood24-Germany and 291 days of weighed dietary recording (WDR) in n=97 participants.

Nutrient intake	myfood24 (n=380 recalls)	WDR (n=291 days)	Ratio of intake (myfood24/WDR)	Spearman Correlation*	
	Geo. mean (CV)	Geo. mean (CV)	Geo. mean (95% CI)	Raw	Adjusted ^a
Energy (kcal)	1850 (0.35)	1894 (0.32)	0.99 (0.95, 1.03)	0.65	
Fat (g)	71.3 (0.56)	71.2 (0.53)	1.02 (0.96, 1.09)	0.61	0.63
SFA (g)	27.5 (0.67)	27.4 (0.65)	1.03 (0.95, 1.10)	0.64	0.62
MUFA (g)	24.3 (0.63)	24.3 (0.58)	1.03 (0.96, 1.11)	0.55	0.53
PUFA (g)	11.5 (0.72)	11.1 (0.69)	1.08 (1.00, 1.17)	0.60	0.61
Protein (g)	65.5 (0.46)	66.1 (0.43)	1.02 (0.96, 1.07)	0.72	0.54
Carbohydrate (g)	203.0 (0.38)	213.1 (0.40)	0.96 (0.92, 1.01)	0.67	0.74
Starch (g)	103.0 (0.73)	106.8 (0.62)	0.98 (0.92, 1.05)	0.73	0.75
Fibre (g)	21.8 (0.54)	23.4 (0.55)	0.94 (0.87, 1.00)	0.64	0.68
Total sugars (g)	77.4 (0.60)	86.4 (0.59)	0.92 (0.86, 0.98)	0.65	0.69
Cholesterol (mg)	150.5 (2.99)	131.8 (3.26)	1.23 (1.02, 1.49)	0.62	0.60
Alcohol (g)	0.8 (17.04)	0.7 (16.99)	1.36 (0.94, 1.98)	0.62	0.62
Sodium (g)	2.1 (0.59)	2.4 (0.56)	0.90 (0.84, 0.97)	0.52	0.42
Potassium (g)	2.7 (0.43)	3.0 (0.40)	0.91 (0.87, 0.96)	0.59	0.60
Calcium (g)	0.8 (0.53)	0.8 (0.56)	0.94 (0.89, 1.00)	0.72	0.60
Magnesium (g)	0.3 (0.45)	0.4 (0.42)	0.98 (0.93, 1.03)	0.75	0.70
Phosphorous (g)	1.2 (0.42)	1.2 (0.42)	0.97 (0.93, 1.02)	0.75	0.56
Iron (mg)	12.0 (0.50)	12.6 (0.43)	0.98 (0.93, 1.03)	0.72	0.63
Copper (mg)	1.6 (0.52)	1.9 (0.46)	0.88 (0.83, 0.95)	0.66	0.60
Zinc (mg)	9.6 (0.46)	9.9 (0.40)	0.99 (0.94, 1.04)	0.65	0.43
Iodine (ug)	79.01 (0.68)	91.1 (0.84)	0.85 (0.76, 0.94)	0.41	0.34
Retinol (Equ) (mg)	1.0 (0.88)	1.2 (0.96)	0.84 (0.75, 0.94)	0.45	0.39
β-carotene (mg)	2.8 (1.59)	4.0 (1.52)	0.74 (0.64, 0.86)	0.53	0.49
Vitamin D (ug)	1.6 (1.47)	1.6 (1.34)	1.16 (1.01, 1.33)	0.53	0.54
Vitamin E (mg)	11.4 (0.63)	13.0 (0.69)	0.88 (0.81, 0.96)	0.47	0.38

Supplementary Material

Thiamin (mg)	1.1 (0.51)	1.3 (0.49)	0.89 (0.82, 0.95)	0.50	0.45
Niacin (mg)	13.1 (0.60)	14.7 (0.55)	0.92 (0.86, 1.00)	0.51	0.46
Vitamin B6 (mg)	1.3 (0.59)	1.7 (0.53)	0.82 (0.77, 0.89)	0.49	0.47
Vitamin B12 (ug)	1.5 (2.21)	2.7 (1.41)	0.65 (0.57, 0.74)	0.72	0.68
Folate (Equ) (ug)	233.4 (0.54)	334.7 (0.52)	0.70 (0.65, 0.75)	0.53	0.50
Pantothenic acid (mg)	4.0 (0.55)	5.3 (0.46)	0.78 (0.73, 0.83)	0.59	0.54
Biotin (ug)	42.4 (0.58)	50.7 (0.55)	0.86 (0.80, 0.92)	0.65	0.64
Vitamin C (mg)	78.8 (1.20)	103.9 (1.06)	0.79 (0.70, 0.89)	0.58	0.60

*Geo. mean=geometric mean, CV=coefficient of variation, * $p < .0001$ for all displayed correlations, ^a correlation for nutrient densities (nutrient intake per 1000kcal), a constant was added to each individual intake value when the calculation of geometric mean was not possible due to intake values of zero and subtracted from the result for absolute numbers (alcohol, cholesterol, vitamin D, vitamin B12, vitamin C)*