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Supplement to:



## Intake of various food groups among girls and boys with different utilisation of school meals

## **Results from EsKiMo II**

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Age group	6–11	years (n = 1,094)		12–17 years (n = 1,299)			
	n	% unweighted	% weighted	n	% unweighted	% weighted	
sex							
girls	542	49.5	49.0	694	53.4	48.0	
boys	552	50.5	51.1	605	46.6	52.0	
socioeconomic status c	of the fa	amilyª					
low	89	8.2	17.2	116	9.1	17.9	
medium	645	59.5	61.7	825	64.4	63.7	
high	351	32.4	21.1	340	26.5	18.4	
region of residence							
former West Germany	731	66.8	82.2	854	65.7	83.8	
former East Germany	363	33.2	17.8	445	34.3	16.2	
school meals							
$\geq$ 3 times per week	463	42.3	36.0	224	17.2	12.9	
< 3 times per week	631	57.7	64.0	1,075	82.8	87.1	

Tab. 1: Selected characteristics of the study population

<sup>a</sup> The variable "socioeconomic status of the family" contains some missing values (n = 9 for 6- to 11-year-olds; n = 18 for 12- to 17-year-olds).



Girls	School meals ≥ 3 times per week n = 238				School meals < 3 times per week n = 304				Significance level
	Food intake			OMD achieved	Food intake			OMD achieved	Difference OMD achieved
	Median	1st quartile	3rd quartile	%	Median	1st quartile	3rd quartile	%	p-value
beverages (g/day)	816.0	617.5	1,086.1	45.8	904.0	703.0	1,221.3	55.1	0.1287
fruit (g/day)	111.8	50.1	165.5	11.8	89.3	42.5	175.9	9.2	0.5064
vegetables (g/day)	94.4	54.4	124.9	1.8	68.8	40.1	128.0	0.7	0.1311
carbohydrate-rich foods (g/day)	216.4	181.4	265.0	13.2	208.1	163.5	268.2	15.9	0.5531
meat (g/day)	59.0	33.7	83.9	66.9	58.8	34.2	86.0	65.8	0.8578
fish (g/day)	0.0	0.0	14.5	25.3	0.0	0.0	14.3	24.2	0.8126
eggs (g/day)	5.9	0.9	18.7	21.8	3.8	0.0	15.0	18.5	0.5129
fatª (g/day)	11.8	8.1	17.8	9.2	11.5	6.6	16.5	6.6	0.4297
dairy products <sup>b</sup> (g/day)	223.8	150.0	366.6	10.2	229.0	129.1	322.2	7.1	0.3064
tolerated foods <sup>c</sup> (kcal/day)	343.8	246.3	487.1	10.3	410.9	266.4	569.4	5.8	0.1337
Boys	School meals ≥ 3 times per week n = 225				School meals < 3 times per week n = 327				Significance level
	Food intake			OMD achieved	Food intake	:	OMD achieved	Difference OMD achieved	
	Median	1st quartile	3rd quartile	%	Median	1st quartile	3rd quartile	%	p-value
beverages (g/day)	983.0	767.8	1,294.0	60.4	1,025.3	829.4	1,282.9	68.6	0.1375
fruit (g/day)	105.3	61.0	171.3	11.6	87.3	35.5	156.3	4.2	0.0147*
vegetables (g/day)	76.5	46.1	126.0	2.4	75.4	45.5	117.0	1.5	0.4297
carbohydrate-rich foods (g/day)	244.7	199.6	300.5	23.5	234.0	193.6	285.2	17.2	0.2059
meat (g/day)	64.9	46.2	105.8	78.7	72.1	47.3	102.4	80.2	0.7679
fish (g/day)	0.0	0.0	21.0	31.5	0.0	0.0	18.2	30.6	0.8627
eggs (g/day)	4.9	0.9	18.0	23.3	3.9	0.0	17.4	21.4	0.6930
fatª (g/day)	13.1	7.0	20.1	11.7	11.1	6.7	17.2	7.8	0.2091
dairy products <sup>b</sup> (g/day)	304.9	210.6	429.5	12.9	241.3	141.9	376.8	11.9	0.7925
tolerated foods <sup>c</sup> (kcal/day)	482.0	331.1	628.8	5.9	438.1	289.7	613.7	9.1	0.3952

Tab. 2: Distribution of intake of food groups (in g or kcal/day) and percentage of participants who achieved the recommended intakes according to the Optimised Mixed Diet (OMD) (in %) by frequency of utilisation of school meals in 6- to 11-year-olds in the EsKiMo II study (n = 1,094)

<sup>a</sup> fats/oils used for cooking or spreads

<sup>b</sup> quantity calculated as milk equivalent

<sup>c</sup> OMD achieved if intake is under the maximum value

\* statistically significant differences in the percentage of people who achieved the OMD recommendation (a statistically significant difference is assumed for p < 0.05)



Girls	School mea n = 109	ls ≥ 3 time	es per wee	k	School meals < 3 times per weel n = 585				Significance level
	Food intake			OMD achieved	Food intake			OMD achieved	Difference OMD achieved
	Median	1st quartile	3rd quartile	%	Median	1st quartile	3rd quartile	%	p-value
beverages (g/day)	1,393.6	997.6	1,845.3	73.2	1,546.4	1,128.4	2,144.2	80.1	0.2002
fruit (g/day)	135.5	82.3	214.8	13.2	124.3	63.4	239.8	16.1	0.6353
vegetables (g/day)	172.7	110.5	314.5	21.0	170.8	107.3	275.6	17.9	0.6144
carbohydrate-rich foods (g/day)	310.5	231.1	399.2	29.5	270.1	209.6	345.8	20.6	0.1734
meat (g/day)	78.8	37.8	128.4	62.4	71.8	40.2	111.5	65.4	0.6629
fish (g/day)	6.3	0.0	13.9	23.2	3.5	0.0	11.9	20.0	0.6177
eggs (g/day)	16.1	5.0	25.8	36.3	9.9	4.3	19.8	19.4	0.0081*
fatª (g/day)	28.4	17.4	36.0	45.1	20.2	13.5	30.5	26.3	0.0042*
dairy products <sup>b</sup> (g/day)	302.0	202.7	443.2	15.0	235.5	125.7	386.1	16.7	0.7485
tolerated foods <sup>c</sup> (kcal/day)	351.9	213.6	579.1	17.6	314.5	174.1	538.1	27.4	0.1175
	School meals ≥ 3 times per wee n = 115				School meals < 3 times per weel n = 490				
Boys		ls ≥ 3 time	es per wee	k		ls < 3 time	es per wee	k	Significance level
Boys			es per wee	ek OMD achieved			es per wee	k OMD achieved	
Boys	n = 115		es per wee 3rd quartile	OMD	n = 490		es per wee 3rd quartile	OMD	level Difference OMD
Boys beverages (g/day)	n = 115 Food intake	1st	3rd	OMD achieved	n = 490 Food intake	1st	3rd	OMD achieved	level Difference OMD achieved
	n = 115 Food intake Median	1st quartile	3rd quartile	OMD achieved %	n = 490 Food intake Median	1st quartile	3rd quartile	OMD achieved %	level Difference OMD achieved p-value
beverages (g/day)	n = 115 Food intake Median 1,602.9	1st quartile 1,206.2	3rd quartile 2,267.9	OMD achieved % 77.3	n = 490 Food intake Median 1,887.1	1st quartile 1,359.8	3rd quartile 2,540.8	OMD achieved % 83.9	level Difference OMD achieved p-value 0.2069
beverages (g/day) fruit (g/day)	n = 115 Food intake Median 1,602.9 118.2	1st quartile 1,206.2 72.9	3rd quartile 2,267.9 180.9	OMD achieved % 77.3 6.1	n = 490 Food intake Median 1,887.1 90.7	1st quartile 1,359.8 39.9	3rd quartile 2,540.8 169.3	OMD achieved % 83.9 6.7	level Difference OMD achieved p-value 0.2069 0.8121
beverages (g/day) fruit (g/day) vegetables (g/day) carbohydrate-rich	n = 115 Food intake Median 1,602.9 118.2 159.0	1st quartile 1,206.2 72.9 79.2	3rd quartile 2,267.9 180.9 268.9	OMD achieved % 77.3 6.1 13.6	n = 490 Food intake Median 1,887.1 90.7 141.4	1st quartile 1,359.8 39.9 78.5	3rd quartile 2,540.8 169.3 251.6	OMD achieved % 83.9 6.7 6.7	level Difference OMD achieved p-value 0.2069 0.8121 0.0563
beverages (g/day) fruit (g/day) vegetables (g/day) carbohydrate-rich foods (g/day)	n = 115 Food intake Median 1,602.9 118.2 159.0 350.3	1st quartile 1,206.2 72.9 79.2 265.6	3rd quartile 2,267.9 180.9 268.9 412.9	OMD achieved % 77.3 6.1 13.6 23.4	n = 490 Food intake Median 1,887.1 90.7 141.4 336.7	1st quartile 1,359.8 39.9 78.5 250.3	3rd quartile 2,540.8 169.3 251.6 417.9	OMD achieved % 83.9 6.7 6.7 19.4	level Difference OMD achieved p-value 0.2069 0.8121 0.0563 0.4607
beverages (g/day) fruit (g/day) vegetables (g/day) carbohydrate-rich foods (g/day) meat (g/day)	n = 115 Food intake Median 1,602.9 118.2 159.0 350.3 127.4	1st quartile 1,206.2 72.9 79.2 265.6 77.9	3rd quartile 2,267.9 180.9 268.9 412.9 165.8	OMD achieved % 77.3 6.1 13.6 23.4 86.8	n = 490 Food intake Median 1,887.1 90.7 141.4 336.7 113.8	1st   quartile   1,359.8   39.9   78.5   250.3   72.2	3rd quartile 2,540.8 169.3 251.6 417.9 158.6	OMD achieved % 83.9 6.7 6.7 19.4 82.3	level Difference OMD achieved p-value 0.2069 0.8121 0.0563 0.4607 0.3812
beverages (g/day) fruit (g/day) vegetables (g/day) carbohydrate-rich foods (g/day) meat (g/day) fish (g/day)	n = 115 Food intake Median 1,602.9 118.2 159.0 350.3 127.4 9.9	1st   quartile   1,206.2   72.9   79.2   265.6   77.9   2.2	3rd quartile 2,267.9 180.9 268.9 412.9 165.8 21.2	OMD achieved % 77.3 6.1 13.6 23.4 86.8 41.0	n = 490 Food intake Median 1,887.1 90.7 141.4 336.7 113.8 5.9	1st   quartile   1,359.8   39.9   78.5   250.3   72.2   0.0	3rd quartile 2,540.8 169.3 251.6 417.9 158.6 15.7	OMD achieved % 83.9 6.7 6.7 19.4 82.3 27.9	level   Difference OMD achieved   p-value   0.2069   0.8121   0.0563   0.4607   0.3812   0.0257*
beverages (g/day) fruit (g/day) vegetables (g/day) carbohydrate-rich foods (g/day) meat (g/day) fish (g/day) eggs (g/day)	n = 115 Food intake Median 1,602.9 118.2 159.0 350.3 127.4 9.9 14.2	1st   quartile   1,206.2   72.9   79.2   265.6   77.9   2.2   6.1	3rd quartile 2,267.9 180.9 268.9 412.9 165.8 21.2 27.0	OMD achieved % 77.3 6.1 13.6 23.4 86.8 41.0 25.4	n = 490 Food intake Median 1,887.1 90.7 141.4 336.7 113.8 5.9 14.3	1st   quartile   1,359.8   39.9   78.5   250.3   72.2   0.0   7.5	3rd quartile 2,540.8 169.3 251.6 417.9 158.6 15.7 27.2	OMD achieved % 83.9 6.7 6.7 19.4 82.3 27.9 25.0	level   Difference OMD achieved   p-value   0.2069   0.8121   0.0563   0.4607   0.3812   0.0257*   0.9582

Tab. 4: Distribution of intake of food groups (in g or kcal/day) and percentage of participants who achieved the recommended intakes according to the Optimised Mixed Diet (OMD) (in %) by frequency of utilisation of school meals in 12- to 17-year-olds in the EsKiMo II study (n = 1,299)

<sup>a</sup> fats/oils used for cooking or spreads

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