

Healthiness and environmental impact of dinner recipes vary widely across developed countries

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Supplementary table 8: Scoring system for the dietary guidelines from World Health Organization and the Nordic countries.

Nutrient	Dietary guidelines	
	World Health Organization	Nordic Nutrition Recommendation
Fat	15-30 E%	25-40 E%
Saturated fat	<10 E%	<10 E%
Carbohydrate	55-75 E%	45-60 E%
Added sugar	<10 E%	<10 E%
Dietary fibre	3 g/MJ	3 g/MJ
Protein	10-15 E%	10-20 E%

Note:

Abbreviations used: E% = Energy percent, MJ = Megajoule.

Supplementary table 9: Scoring system for the UK Food Standard Agency multiple traffic light system

Nutrient	Green/Low	Amber/Medium	Red/High
	Healthier choice	Can be eaten most of the time	Eat less often
Salt	$\leq 0.3\text{g}/100\text{g}$	$>0.3\text{g}$ to $\leq 1.5\text{g}/100\text{g}$	$>1.5\text{g}/100\text{g}$
Fat	$\leq 3.0\text{g}/100\text{g}$	$>3.0\text{g}$ to $\leq 17.5\text{g}/100\text{g}$	$>17.5\text{g}/100\text{g}$
Saturated fat	$\leq 1.5\text{g}/100\text{g}$	$>1.5\text{g}$ to $\leq 5.0\text{g}/100\text{g}$	$>5.0\text{g}/100\text{g}$
Added sugar	$\leq 5.0\text{g}/100\text{g}$	$>5.0\text{g}$ to $\leq 22.5\text{g}/100\text{g}$	$>22.5\text{g}/100\text{g}$

Supplementary table 10: Scoring system for Nutriscore.

Points	Disqualifying				Qualifying		
	Energy density	Added sugars	Saturated fat	Sodium	Fruits, vegetables, pulses, nuts and rapeseed, walnut and olive oils	Dietary fibre	Protein
0	≤ 335 kJ	≤ 4.5 g	≤ 1 g	≤ 90 mg	≤ 40 %	≤ 0.9 g	≤ 1.6 g
1	> 335 kJ	> 4.5 g	> 1 g	> 90 mg	> 40 %	> 0.9 g	> 1.6 g
2	> 670 kJ	> 9 g	> 2 g	> 180 mg	> 60 %	> 1.9 g	> 3.2 g
3	> 1005 kJ	> 13.5 g	> 3 g	> 270 mg	-	> 2.8 g	> 4.8 g
4	> 1340 kJ	> 18 g	> 4 g	> 360 mg	-	> 3.7 g	> 6.4 g
5	> 1675 kJ	> 22.5 g	> 5 g	> 450 mg	> 80 %	> 4.7 g	> 8.0 g
6	> 2010 kJ	> 27 g	> 6 g	> 540 mg	-	-	-
7	> 2345 kJ	> 31 g	> 7 g	> 630 mg	-	-	-
8	> 2680 kJ	> 36 g	> 8 g	> 720 mg	-	-	-
9	> 3015 kJ	> 40 g	> 9 g	> 810 mg	-	-	-
10	> 3350 kJ	> 45 g	> 10 g	> 900 mg	-	-	-

Supplementary table 11: Kruskal Wallis and Dunn test results.

	Median (IQR)			Kruskal-Wallis test, BH corrected		Dunn test, BH corrected	
	Norway	UK	US	Adj. <i>p</i> -value	Effect size (95% ci)	Pairwise	Adj. <i>p</i> -value
Environmental impact							
kg CO ₂ equivalents	0.5 (0.3, 0.9)	0.4 (0.3, 0.7)	0.7 (0.4, 1.1)	< 0.01	0.02 (0-0.05)	Norway - UK Norway - US UK - US	0.06 < 0.05 < 0.01
Landuse m ² /year	0.6 (0.3, 1.1)	0.5 (0.3, 1)	0.8 (0.4, 1.3)	< 0.01	0.02 (0-0.05)	Norway - UK Norway - US UK - US	0.45 < 0.05 < 0.01
Healthiness indicators							
Inv. Nutriscore	-0.5 (-3, 2)	1 (-2, 3)	-1 (-3, 1)	< 0.05	0.01 (0-0.04)	Norway - UK Norway - US UK - US	< 0.05 0.42 < 0.05
Inv. Traffic Light	9 (9, 10)	9 (9, 10)	9 (9, 10)	0.77	0 (0-0.01)	Norway - UK Norway - US UK - US	0.71 0.71 0.57
NNR Score	2 (1, 3)	2 (2, 3)	1 (1, 2)	< 0.001	0.04 (0.01-0.08)	Norway - UK Norway - US UK - US	< 0.01 < 0.05 < 0.001
WHO Score	1 (1, 2)	2 (1, 3)	1 (1, 2)	< 0.05	0.01 (0-0.04)	Norway - UK Norway - US UK - US	0.06 0.15 < 0.01
Macronutrients							
Fat E%	48.6 (35.5, 60.2)	44.7 (33.6, 55.8)	48.8 (37.1, 57.1)	0.36	0 (0-0.02)	Norway - UK Norway - US UK - US	0.22 0.65 0.57
Saturated Fat E%	16.4 (9.8, 23.9)	14.1 (9.2, 19.9)	18 (10.3, 23.1)	0.13	0 (0-0.03)	Norway - UK Norway - US UK - US	0.11 0.65 0.1
Protein E%	23.1 (18.1, 29.7)	20.9 (17.3, 29.9)	25.8 (21.2, 32)	< 0.05	0.01 (0-0.04)	Norway - UK Norway - US UK - US	0.2 0.06 < 0.05
Carbohydrates E%	22.2 (11.7, 34.4)	26.3 (15.3, 40.5)	20.9 (10, 32)	0.12	0.01 (0-0.03)	Norway - UK Norway - US UK - US	0.08 0.91 0.14
Dietary fibre g/MJ	1.8 (1.1, 2.8)	2.6 (1.5, 3.7)	1.4 (0.7, 2.7)	< 0.001	0.04 (0.02-0.08)	Norway - UK Norway - US UK - US	< 0.001 0.08 < 0.001
Sugar E%	0 (0, 0.5)	0 (0, 0.5)	0.1 (0, 1.8)	< 0.05	0.01 (0-0.04)	Norway - UK Norway - US UK - US	0.77 < 0.05 < 0.05
Vitamins							

Supplementary table 11: Kruskal Wallis a (continued)

	Norway	UK	US	Adj. <i>p</i> -value	Effect size (95% ci)	Pairwise	Adj. <i>p</i> -value
Vitamin A % of RDI	7 (3, 11)	7 (4, 11.2)	5.5 (2, 11.8)	0.38	0 (0-0.02)	Norway - UK Norway - US UK - US	0.37 0.57 0.24
Retinol % of RDI	3 (1, 7)	2 (1, 5)	2 (1, 5)	0.17	0 (0-0.03)	Norway - UK Norway - US UK - US	0.19 0.22 0.94
Beta-carotene % of RDI	2 (1, 3)	2 (1, 5)	1 (0.2, 3)	0.12	0.01 (0-0.03)	Norway - UK Norway - US UK - US	0.14 0.43 0.07
Vitamin D % of RDI	3 (1, 9)	1 (0, 3)	2 (1, 5.8)	<0.001	0.04 (0.01-0.08)	Norway - UK Norway - US UK - US	<0.001 0.32 <0.05
Vitamin E % of RDI	11 (7, 16)	12 (8, 18)	9 (6.2, 15.8)	0.17	0 (0-0.03)	Norway - UK Norway - US UK - US	0.48 0.2 0.11
Vitamin C % of RDI	8 (5, 15)	13 (7, 21)	6.5 (3, 12)	<0.001	0.04 (0.01-0.07)	Norway - UK Norway - US UK - US	<0.01 <0.05 <0.001
Thiamin % of RDI	7 (5, 11)	9 (6.8, 12)	9 (5, 14)	<0.05	0.02 (0-0.05)	Norway - UK Norway - US UK - US	<0.05 0.08 0.62
Riboflavin % of RDI	6 (5, 9)	7 (5, 9)	7 (5, 9)	0.36	0 (0-0.02)	Norway - UK Norway - US UK - US	0.37 0.32 0.93
Niacin % of RDI	13 (9, 20)	11 (8, 18)	15 (9, 23)	<0.05	0.01 (0-0.04)	Norway - UK Norway - US UK - US	0.11 0.2 <0.05
Vitamin B6 % of RDI	14 (9.8, 20)	13 (8, 20)	14.5 (10, 23.8)	0.3	0 (0-0.02)	Norway - UK Norway - US UK - US	0.65 0.24 0.2
Folate % of RDI	4 (3, 6)	5 (3, 8)	3 (2, 4)	<0.001	0.06 (0.03-0.11)	Norway - UK Norway - US UK - US	<0.01 <0.001 <0.001
Vitamin B12 % of RDI	30 (11, 51)	22.5 (6, 43)	17.5 (9.2, 38)	<0.05	0.01 (0-0.05)	Norway - UK Norway - US UK - US	<0.05 <0.05 0.91
Minerals							
Calcium % of RDI	3 (2, 5.2)	4 (2, 9)	3 (2, 8)	0.08	0.01 (0-0.04)	Norway - UK Norway - US UK - US	<0.05 0.88 0.15
Copper % of RDI	8.5 (6, 13)	11 (7.8, 18.2)	7 (5, 11)	<0.001	0.04 (0.02-0.08)	Norway - UK Norway - US UK - US	<0.001 0.1 <0.001

Supplementary table 11: Kruskal Wallis a (continued)

	Norway	UK	US	Adj. <i>p</i> -value	Effect size (95% ci)	Pairwise	Adj. <i>p</i> -value
Iodine % of RDI	3 (2, 6)	2 (1, 5)	2 (1, 4)	<0.05	0.01 (0-0.04)	Norway - UK	0.12
						Norway - US	<0.05
						UK - US	0.61
Iron % of RDI	5 (3, 7)	6 (4, 8)	5 (4, 7.8)	<0.01	0.02 (0-0.05)	Norway - UK	<0.01
						Norway - US	0.35
						UK - US	0.12
Magnesium % of RDI	7 (6, 9)	8 (6, 11)	7 (6, 8.8)	0.07	0.01 (0-0.04)	Norway - UK	0.06
						Norway - US	0.59
						UK - US	0.06
Phosphorus % of RDI	19 (14.8, 22)	19 (15, 22.2)	20 (15, 25)	0.17	0 (0-0.03)	Norway - UK	0.57
						Norway - US	0.1
						UK - US	0.43
Potassium % of RDI	8.5 (7, 10)	9 (7.8, 11)	8 (6, 10)	<0.05	0.01 (0-0.04)	Norway - UK	0.06
						Norway - US	0.24
						UK - US	<0.05
Selenium % of RDI	10.5 (6, 19)	7 (5, 15)	10 (6, 14)	<0.05	0.01 (0-0.04)	Norway - UK	<0.05
						Norway - US	0.33
						UK - US	0.37
Sodium % of RDI	10 (6, 15)	9 (7, 13)	9 (4.2, 16)	0.77	0 (0-0.01)	Norway - UK	0.74
						Norway - US	0.57
						UK - US	0.85
Zinc % of RDI	11 (7, 18)	12 (8, 17.2)	13 (8.2, 21.5)	0.05	0.01 (0-0.04)	Norway - UK	0.27
						Norway - US	<0.05
						UK - US	0.47
Energy							
Kilocalories/100g	140.1 (104.2, 182.3)	147 (107.3, 191)	137.8 (106.6, 186.4)	0.61	0 (0-0.01)	Norway - UK	0.48
						Norway - US	0.57
						UK - US	0.91

Note:

Abbreviations used: Inv = Inverted, NNR = Nordic Nutrition Recommendations, WHO = World Health Organization, E% = Percentage of energy, MJ = Megajoule, RDI = Recommended daily intake.