

[Supplementary tables](#)

Supplementary Table 1. Meat replacers available from the Dutch Food Composition Table (NEVO) from 2016^a.

Mean meat replacers	NEVO food items included	GHGE ^b (kgCO ₂ eq/kg)	Energy (kcal)	Iron (mg)	Vit B1 (mg)	Vit B2 (mg)	Vit B3 (mg)	Vit B12 (mg)	Sodium (mg)
Minced meat replacer	Quorn minced	4.09	136.5	1.2	0.12	0.23	0.8	0.19	562.5
	Mincemeat vegetarian								
Hamburger replacer	Hamburger vegetarian	4.17	206.14	2.1	0.12	0.16	0.36	0.35	616.14
	Vegetarian prod w cheese Valess								
	Vegetarian product filled filet Valess								
	Schnitzel vegetarian								
	Quorn southern style burger								
	Vegetarian schnitzel Valess								
Mix meat replacer	Vegetable burger vegetarian								
	Nuggets vegetarian	3.72	186.5	1.7	0.1	0.42	0.75	0.19	526
	Quorn pieces								
	Vegetarian mincemeat balls								
Sausage replacer	Falafel								
	Vegetarian sausage	4.31	259	2.1	0	0.14	0	0.15	773
Luncheon meat replacer	Sausage luncheon meat vegetarian	4.31	263.5	2.1	0.09	0.1	0.8	0.24	813.5
	Ham vegetarian								
Pate replacer	Pate vegetarian	4.31	253.5	2.1	0.53	1.04	2.3	0.11	400.5

^a See the Dutch Food Composition Database (NEVO 2016 [26]) for the nutrient content.

^b Estimated greenhouse gas emissions (GHGE) were derived using comparable values from Blonk Consultants [7].

Supplementary Table 2 Results of the identification of efficient diets.

	Denmark		Czech Republic		Italy		France	
	Men	Women	Men	Women	Men	Women	Men	Women
	(n=619)	(n=766)	(n=671)	(n=715)	(n=898)	(n=1080)	(n=713)	(n=1000)
DEA-model using observed and meat-replacement diet								
N total efficient diets (%) ^a	356 (29%)	369 (24%)	440 (33%)	458 (32%)	405 (23%)	285 (13%)	385 (27%)	273 (14%)
N efficient diets (%) ^b								
based on observed diet only	17 (3%)	6 (1%)	20 (3%)	16 (2%)	21 (2%)	21 (2%)	13 (2%)	27 (3%)
based on meat-replacement diet only	101 (16%)	97 (13%)	90 (13%)	68 (10%)	110 (12%)	48 (4%)	72 (10%)	68 (7%)
based on observed and meat-replacement diet	119 (19%)	133 (17%)	165 (25%)	187 (26%)	137 (15%)	108 (10%)	150 (21%)	89 (9%)
DEA-model using observed and fortified meat-replacement diet								
N total efficient diets ^a	311 (25%)	334 (22%)	389 (29%)	424 (30%)	339 (19%)	282 (13%)	350 (25%)	182 (9%)
N efficient diets (%) ^b								
based on observed diet only	11 (2%)	3 (0%)	8 (1%)	15 (2%)	13 (1%)	16 (1%)	7 (1%)	5 (1%)
based on fortified meat-replacement diet only	92 (15%)	95 (12%)	91 (14%)	73 (10%)	104 (12%)	54 (5%)	87 (12%)	69 (7%)
based on observed and fortified meat-replacement diet	104 (17%)	118 (15%)	145 (22%)	168 (23%)	111 (12%)	106 (10%)	128 (18%)	54 (5%)

^a Number of efficient diets (percentage) calculated based on the number of all diets in the DEA-model, i.e. 1238 diets for men and 1532 diets for women in Denmark, 1342 diets for men and 1430 diets for women in Czech Republic, 1796 diets for men and 2160 diets for women in Italy, and 1426 diets for men and 2000 diets for women in France.

^b Number of efficient diets (percentage) calculated based on the number of men or women in the population subgroup.

Supplementary Table 3 Amount of foods by food group for the observed and modelled diets ^{abc}

3A: for men (g/2500kcal)

	Denmark							Czech Republic							Italy							France						
	Meat Replacers			Fortified				Meat replacers			Fortified				Meat replacers			Fortified				Meat replacers			Fortified			
	Obs	MaxP	MaxH	MaxS	MaxP	MaxH	MaxS	Obs	MaxP	MaxH	MaxS	MaxP	MaxH	MaxS	Obs	MaxP	MaxH	MaxS	MaxP	MaxH	MaxS	Obs	MaxP	MaxH	MaxS	MaxP	MaxH	MaxS
Solid foods	1324	1435	1527	1528	1432	1490	1481	1022	1097	1272	1180	1097	1275	1143	1456	1570	1708	1623	1574	1755	1625	1391	1501	1597	1637	1505	1603	1630
Whole grains	74	95	128	125	96	133	124	7	15	31	24	15	33	24	55	80	99	121	82	115	138	40	66	107	89	67	106	86
Refined grains	178	150	153	148	148	154	145	265	236	250	252	233	249	248	358	316	326	270	305	317	240	240	198	199	190	200	200	194
Potatoes	113	124	186	131	124	177	135	84	97	122	97	95	120	88	55	52	58	37	53	52	38	83	92	99	197	96	101	196
Vegetables	137	162	189	181	164	192	178	100	123	215	154	124	219	130	257	298	328	302	301	352	330	189	239	280	274	236	283	276
Fruit	152	188	219	242	192	209	256	80	105	104	103	104	106	98	195	236	234	323	249	252	310	151	191	246	228	191	248	222
Legumes/nuts and seeds	24	34	41	41	36	39	46	11	24	21	25	27	22	29	36	56	98	51	57	105	60	26	44	39	30	47	39	34
Legumes	21	30	35	37	31	35	41	8	16	16	20	19	16	23	35	53	96	50	53	103	58	23	39	35	27	41	35	31
Nuts and seeds	2	5	5	5	5	4	5	4	8	6	6	9	6	5	1	3	2	2	4	2	2	3	6	4	4	6	4	4
Total dairy	367	383	330	368	365	301	291	139	159	222	205	157	221	172	200	208	189	141	205	190	134	267	273	212	270	267	210	249
Dairy	328	351	300	343	335	269	269	113	128	178	173	124	173	148	131	142	142	110	137	146	110	215	226	165	240	220	162	219
Cheese	39	33	31	24	31	32	22	26	31	45	33	32	47	24	70	66	47	31	68	44	24	52	48	46	30	47	48	29
Meat/fish/eggs	176	143	126	96	138	112	86	196	172	162	115	159	153	84	182	163	217	196	150	212	169	231	193	197	130	176	185	116
Meat	139	97	62	36	92	54	28	167	133	82	58	121	72	39	113	69	58	28	59	45	19	175	119	84	42	107	74	34
Red and processed meat	118	78	51	29	75	44	23	139	117	52	48	108	42	33	90	55	43	20	48	32	14	132	93	70	33	86	62	27
Beef	36	17	13	7	18	12	6	19	14	9	6	13	7	5	42	23	21	9	20	16	6	46	37	26	11	30	22	8
Pork	93	65	48	23	62	41	18	138	113	48	47	106	39	31	46	29	20	10	27	15	7	62	39	31	15	37	28	13
Other meat	2	1	1	0	1	0	0	12	9	5	7	9	4	5	6	3	3	2	3	2	2	15	9	6	4	8	5	3
Poultry	23	19	11	8	17	10	6	30	15	33	9	13	33	6	19	12	13	5	10	12	3	37	21	10	7	18	8	6
Fish	19	26	46	32	26	39	29	12	18	36	25	18	35	19	43	58	111	52	56	117	42	37	46	80	33	41	77	28
Eggs	18	21	18	28	21	19	28	17	21	44	32	20	46	26	26	36	48	116	35	51	108	19	29	34	55	29	34	53
Meat replacers	0	54	70	100	68	89	123	0	28	17	64	45	29	119	0	46	52	75	60	60	101	0	54	85	108	80	102	140
Fats and oils	36	35	29	31	34	32	33	38	36	42	39	36	42	37	45	48	56	59	48	56	58	44	47	47	46	47	46	46

Soft fat and vegetable oils	3	4	3	2	3	4	2	17	20	31	28	20	31	25	42	46	54	58	46	54	57	21	25	28	22	26	28	22
Hard fat and butter	33	31	26	29	31	28	31	20	16	12	12	16	11	12	4	2	2	2	2	2	2	23	22	19	24	22	19	23
Miscellaneous	67	67	59	66	65	52	65	102	103	86	101	104	83	115	73	67	50	49	64	44	49	120	103	86	74	98	83	72
Drinks	2328	2512	2014	2036	2503	2028	2197	1632	1713	1789	1565	1677	1766	1471	1076	1084	1008	1146	1093	964	1087	1763	1793	1967	1376	1778	1952	1433
Coffee, tea and water	1668	1944	1648	1611	1915	1653	1749	914	1068	1472	1144	1046	1467	1071	839	911	865	1061	925	829	1021	1338	1466	1757	1227	1441	1737	1270
Sweet beverages	249	207	89	145	220	103	154	131	87	44	52	89	42	58	65	47	27	31	42	15	21	181	144	61	69	145	57	82
Alcoholic beverages	411	360	277	280	368	273	294	587	558	272	369	542	257	343	173	126	117	54	126	120	45	244	183	150	80	192	157	80
Total	3653	3947	3541	3564	3935	3519	3678	2654	2810	3061	2744	2775	3041	2614	2533	2654	2716	2769	2666	2719	2713	3153	3294	3564	3013	3284	3555	3063

3B: for women (g/2000kcal)

	Denmark							Czech Republic							Italy							France						
	Meat Replacers				Fortified			Meat replacers				Fortified			Meat replacers				Fortified			Meat replacers				Fortified		
	Obs	MaxP	MaxH	MaxS	MaxP	MaxH	MaxS	Obs	MaxP	MaxH	MaxS	MaxP	MaxH	MaxS	Obs	MaxP	MaxH	MaxS	MaxP	MaxH	MaxS	Obs	MaxP	MaxH	MaxS	MaxP	MaxH	MaxS
Solid foods	1249	1373	1421	1493	1366	1416	1435	962	1039	1157	1073	1032	1153	1070	1307	1413	1471	1432	1406	1469	1423	1253	1403	1558	1486	1423	1581	1478
Whole grains	65	84	87	91	86	94	100	12	22	38	26	23	39	26	42	74	115	110	71	115	111	33	65	67	113	79	84	136
Refined grains	133	112	110	113	110	114	115	186	163	158	161	161	158	163	279	224	182	199	228	185	201	160	114	132	88	116	130	66
Potatoes	70	69	64	57	71	76	72	73	78	59	71	75	55	71	46	46	94	65	46	95	67	68	68	55	53	69	48	56
Vegetables	172	211	250	238	209	253	244	105	130	161	132	130	165	132	240	271	284	260	271	282	258	196	247	246	278	257	264	297
Fruit	226	269	337	396	267	359	387	147	172	232	179	172	235	180	210	267	310	304	263	308	298	175	230	258	219	225	270	261
Legumes/nuts and seeds	26	41	41	57	41	39	54	11	22	26	37	23	27	36	31	58	62	60	57	62	62	17	39	78	35	45	86	52
Legumes	22	34	34	47	34	34	45	9	16	22	24	17	23	25	30	53	57	56	52	57	59	14	35	75	30	38	83	48
Nuts and seeds	4	7	7	10	7	5	9	3	6	4	13	6	4	12	1	5	5	4	5	5	4	2	5	3	5	7	4	5
Total dairy	356	380	316	340	375	264	258	165	188	231	215	181	224	208	210	209	138	182	206	135	174	275	289	311	342	298	297	253
Dairy	325	348	287	316	344	238	236	139	158	202	194	151	194	188	155	164	97	161	161	96	153	237	259	290	321	270	280	237
Cheese	32	32	29	25	31	27	22	25	30	29	21	30	30	20	55	46	40	22	44	39	21	39	30	21	21	28	17	16
Meat/fish/eggs	118	96	89	59	87	80	60	128	108	95	64	105	91	58	146	126	144	99	119	143	95	176	149	135	102	123	110	72
Meat	85	48	30	17	41	22	14	99	70	35	31	68	32	27	86	53	21	16	49	20	15	122	73	32	17	50	15	6

Red and processed meat	68	38	18	12	32	13	10	72	57	25	24	55	22	21	67	44	19	12	41	18	11	90	55	21	12	37	6	5
Beef	22	12	6	4	9	4	3	10	5	5	3	5	5	2	34	24	14	5	23	14	5	35	21	12	4	17	2	2
Pork	47	24	12	8	22	9	7	61	44	17	18	43	15	16	30	17	4	6	16	4	6	37	22	6	5	16	3	2
Other meat	1	1	1	0	1	0	0	6	4	2	2	4	2	2	4	1	0	1	1	0	1	9	7	2	2	3	0	0
Poultry	17	10	11	5	8	8	4	27	14	11	8	14	10	8	15	6	2	2	6	2	2	28	16	9	4	11	7	1
Fish	17	28	37	29	27	41	33	14	21	48	19	22	48	17	41	53	106	59	52	106	56	37	52	79	46	51	74	34
Eggs	16	20	23	13	19	17	13	16	17	12	15	15	11	15	19	20	17	24	19	18	24	17	24	25	39	21	21	32
Meat replacers	0	35	51	57	43	61	58	0	27	42	57	34	45	70	0	38	55	71	45	57	76	0	52	144	116	81	173	160
Fats and oils	25	21	21	22	21	22	22	35	32	33	31	31	33	30	39	40	44	37	40	44	38	40	42	39	41	42	39	43
Soft fat and vegetable oils	2	3	3	4	3	2	3	16	17	20	18	17	20	18	36	39	43	36	39	43	37	20	22	25	24	22	26	23
Hard fat and butter	23	18	18	18	19	20	19	19	14	13	12	14	13	12	3	1	1	1	1	1	1	20	20	13	18	21	13	20
Miscellaneous	59	57	56	63	58	55	64	101	98	82	102	96	82	96	64	61	45	45	61	44	43	115	107	94	98	89	80	82
Drinks	2310	2442	2351	2328	2428	2247	2224	1415	1628	1713	1380	1620	1750	1365	986	1033	747	996	1029	742	978	1702	1671	1314	1512	1532	1317	1519
Coffee, tea and water	1925	2095	2159	2156	2080	2078	2072	1178	1426	1571	1247	1417	1609	1234	872	966	716	940	958	712	923	1486	1555	1254	1464	1422	1271	1483
Sweet beverages	221	197	79	94	197	68	82	124	104	52	53	104	50	49	53	35	20	23	38	19	23	141	68	24	32	76	20	24
Alcoholic beverages	165	150	113	79	150	101	70	113	98	90	80	98	91	81	62	32	11	32	33	11	31	76	48	36	16	35	27	12
Total	3559	3815	3772	3821	3794	3663	3658	2377	2667	2870	2452	2651	2903	2435	2293	2446	2219	2428	2435	2211	2401	2955	3074	2872	2998	2955	2898	2997

^a All modelled diets have an improved adherence to food-based dietary guidelines, Max P is the most preferred diet based on minimal deviation from the observed diet, Max H the most healthy diet based on NRD15.3 for nutrient quality, and Max S the most environmentally sustainable diets based on GHGE.

^b Information on amount of coffee, tea, and water in the diets is not included in the graph.

^c Average amount of food consumed by the population in gram per 2500 kcal for men and per 2000 kcal for women.

Supplementary Table 4 Estimated prevalence (%) of nutrient inadequacies for the observed and modelled diets ^a

4A: for men

	Denmark							Czech Republic							Italy							France						
	Meat replacers			Fortified				Meat replacers			Fortified				Meat replacers			Fortified				Meat replacers			Fortified			
	Obs	Max P	Max H	Max S	Max P	Max H	Max S	Obs	Max P	Max H	Max S	Max P	Max H	Max S	Obs	Max P	Max H	Max S	Max P	Max H	Max S	Obs	Max P	Max H	Max S	Max P	Max H	Max S
Prevalence of nutrient inadequacies ^b																												
Protein	4	4	3	6	4	3	8	10	6	3	6	6	3	6	1	1	0	3	1	0	3	2	2	1	4	2	1	5
Dietary fibre	66	39	14	13	35	12	10	91	74	55	52	69	49	44	72	48	36	43	43	28	30	86	64	40	32	58	36	27
Iron	39	28	14	17	10	3	1	36	23	15	23	15	10	5	19	6	2	15	3	1	5	26	22	18	17	14	10	7
Magnesium	26	12	7	6	11	7	6	54	34	19	31	32	17	27	44	26	25	38	25	25	41	56	41	26	35	42	26	36
Calcium	34	16	20	7	14	18	7	76	56	25	27	53	21	35	58	29	28	38	22	24	25	37	19	18	9	16	14	6
Zinc	10	15	14	24	16	17	28	68	59	41	57	60	41	65	12	12	5	32	13	5	38	17	21	23	27	22	24	30
Potassium	39	27	16	25	26	17	27	97	90	76	87	90	74	89	60	44	36	49	43	35	49	63	51	41	32	50	40	32
Vitamin A	26	31	34	39	32	36	41	52	44	21	36	46	20	49	28	23	21	29	22	20	31	37	34	38	33	36	39	34
Vitamin D	99	99	90	99	99	91	99	100	99	28	92	99	23	99	100	97	25	99	97	25	100	100	100	100	100	100	100	100
Vitamin E	91	56	33	17	52	24	9	42	24	3	5	22	3	5	24	8	0	12	3	0	7	42	20	16	19	18	16	14
Vitamin B1	5	28	4	8	2	1	2	14	11	11	11	7	8	3	32	17	2	30	11	1	23	19	20	16	11	15	11	13
Vitamin B2	27	6	29	27	15	17	14	80	69	55	63	60	47	43	42	24	12	31	15	5	18	18	18	20	16	12	11	9
Vitamin B3	0	0	0	3	0	0	1	10	14	19	28	9	14	11	11	18	14	24	10	7	12	24	35	28	43	25	14	17
Vitamin B12	29	33	30	36	32	29	35	39	27	25	33	29	25	37	23	11	3	35	10	2	39	34	32	25	42	33	24	41
Folate	33	23	10	9	22	8	9	81	66	33	50	64	32	49	62	45	45	44	45	41	46	59	37	20	19	35	21	24
Intake estimates																												
Sodium ^c	4059	4275	4225	4150	4332	4335	4160	5212	5433	4960	5174	5542	5017	5514	2123	2450	2426	2567	2537	2553	2773	4083	4417	3962	5711	4579	4015	5956

4B: for women

	Denmark							Czech Republic							Italy							France						
	Obs	Meat replacers			Fortified			Obs	Meat replacers			Fortified			Obs	Meat replacers			Fortified			Obs	Meat replacers			Fortified		
		Max P	Max H	Max S	Max P	Max H	Max S		Max P	Max H	Max S	Max P	Max H	Max S		Max P	Max H	Max S	Max P	Max H	Max S		Max P	Max H	Max S	Max P	Max H	Max S
Prevalence of nutrient inadequacies ^b																												
Protein	0	0	0	0	0	0	0	16	10	7	13	10	7	12	1	1	0	2	1	0	2	3	3	1	2	3	1	4
Dietary fibre	55	49	44	40	49	41	39	97	87	54	73	86	49	69	85	58	36	37	57	36	36	94	73	36	48	60	20	24
Iron	64	62	61	60	60	57	57	96	87	85	85	81	75	69	75	60	50	63	55	42	51	74	66	57	52	53	23	19
Magnesium	0	0	0	0	0	0	0	57	31	16	20	31	15	21	44	16	24	17	17	25	18	55	36	23	30	38	19	30
Calcium	31	8	6	3	7	9	6	75	50	36	43	50	35	43	70	47	55	41	43	55	40	48	24	8	10	17	5	5
Zinc	50	50	50	50	50	50	50	66	57	57	62	57	57	62	9	6	7	16	7	8	18	18	17	13	17	18	15	20
Potassium	60	46	33	28	46	33	27	98	94	84	90	94	83	90	78	57	41	45	58	42	46	82	68	50	65	70	49	68
Vitamin A	27	28	25	33	29	17	31	49	38	38	44	38	39	46	29	25	29	26	26	30	27	33	31	36	32	31	35	29
Vitamin D	100	99	85	99	99	68	94	100	100	95	100	100	97	100	99	99	98	100	99	99	100	100	100	100	100	100	100	100
Vitamin E	73	47	19	3	46	19	2	37	18	10	8	18	10	9	28	22	13	27	23	13	28	30	10	2	5	9	1	8
Vitamin B1	11	11	9	7	6	3	2	27	19	19	14	14	12	6	39	32	30	40	30	27	34	28	29	21	22	23	11	14
Vitamin B2	52	41	48	48	32	42	46	86	71	72	67	65	65	55	50	30	31	42	25	23	29	28	24	26	18	18	11	12
Vitamin B3	1	2	1	4	1	1	2	50	57	70	67	48	58	46	37	24	47	41	16	33	21	42	49	48	55	36	16	26
Vitamin B12	40	33	30	40	34	26	38	54	41	38	49	39	37	49	26	22	31	20	23	30	20	36	34	34	43	38	35	47
Folate	42	25	8	2	25	6	1	80	63	50	57	61	49	56	59	49	45	47	50	46	48	63	43	29	30	40	27	36
Intake estimates																												
Sodium ^c	3122	3303	3145	3181	3316	3160	3048	4054	4244	4337	4038	4254	4365	4124	1616	1981	2240	2240	2014	2245	2445	3300	3501	3172	3777	3614	3462	4411

^a All modelled diets have an improved adherence to food-based dietary guidelines, Max P is the most preferred diet based on minimal deviation from the observed diet, Max H the most healthy diet based on NRD15.3 for nutrient quality, and Max S the most environmentally sustainable diets based on GHGE.

^b Prevalence of nutrient inadequacies were calculated using the gender-specific Population Reference Intake (PRI), and Adequate Intake (AI) if PRI cannot be set, of the European Food Safety Authority (EFSA).

° In Czech Republic, sodium intake included sodium intake from raw foods and discretionary salt, while in Italy discretionary salt was excluded, and in Denmark and France discretionary salt added at the table was excluded but discretionary salt added during cooking was included when a recipe was reported

Supplementary Table 5 Amount of foods by food group for the observed, full meat replaced, and full fortified meat replaced diets^a

	Denmark						Czech Republic						Italy						France					
	Men			Women			Men			Women			Men			Women			Men			Women		
	Obs	Full meat replacer	Full fortified	Obs	Full meat replacer	Full fortified	Obs	Full meat replacer	Full fortified	Obs	Full meat replacer	Full fortified	Obs	Full meat replacer	Full fortified	Obs	Full meat replacer	Full fortified	Obs	Full meat replacer	Full fortified	Obs	Full meat replacers	Full fortified
Solid foods	1324	1330	1330	1249	1259	1259	1022	1030	1030	962	965	965	1456	1430	1430	1307	1280	1280	1391	1402	1402	1253	1261	1261
Whole grains	74	75	75	65	65	65	7	7	7	12	12	12	55	54	54	42	42	42	40	40	40	33	33	33
Refined grains	178	182	182	133	135	135	265	268	268	186	187	187	358	352	352	279	273	273	240	242	242	160	161	161
Potatoes	113	112	112	70	69	69	84	85	85	73	73	73	55	54	54	46	45	45	83	84	84	68	69	69
Vegetables	137	138	138	172	173	173	100	101	101	105	105	105	257	252	252	240	235	235	189	190	190	196	197	197
Fruit	152	153	153	226	228	228	80	81	81	147	148	148	195	192	192	210	206	206	151	151	151	175	175	175
Legumes/nuts and seeds	24	24	24	26	26	26	11	11	11	11	11	11	36	36	36	31	31	31	26	26	26	17	17	17
Legumes	21	22	22	22	23	23	8	8	8	9	9	9	35	35	35	30	30	30	23	23	23	14	15	15
Nuts and seeds	2	2	2	4	4	4	4	4	4	3	3	3	1	1	1	1	1	1	3	3	3	2	2	2
Total dairy	367	368	368	356	358	358	139	140	140	165	165	165	200	197	197	210	206	206	267	270	270	275	277	277
Dairy	328	329	329	325	327	327	113	113	113	139	140	140	131	128	128	155	151	151	215	217	217	237	238	238
Cheese	39	39	39	32	32	32	26	26	26	25	25	25	70	69	69	55	54	54	52	53	53	39	39	39
Meat/fish/eggs	176	37	37	118	33	33	196	29	29	128	29	29	182	68	68	146	59	59	231	56	56	176	54	54
Meat	139	0	0	85	0	0	167	0	0	99	0	0	113	0	0	86	0	0	175	0	0	122	0	0
Red and processed meat	118	0	0	68	0	0	139	0	0	72	0	0	90	0	0	67	0	0	132	0	0	90	0	0
Beef	36	0	0	22	0	0	19	0	0	10	0	0	42	0	0	34	0	0	46	0	0	35	0	0
Pork	93	0	0	47	0	0	138	0	0	61	0	0	46	0	0	30	0	0	62	0	0	37	0	0
Other meat	2	0	0	1	0	0	12	0	0	6	0	0	6	0	0	4	0	0	15	0	0	9	0	0
Poultry	23	0	0	17	0	0	30	0	0	27	0	0	19	0	0	15	0	0	37	0	0	28	0	0
Fish	19	19	19	17	17	17	12	12	12	14	14	14	43	42	42	41	40	40	37	37	37	37	37	37
Eggs	18	18	18	16	16	16	17	17	17	16	16	16	26	25	25	19	19	19	19	19	19	17	17	17
Meat replacers	0	139	139	0	85	85	0	168	168	0	99	99	0	110	110	0	84	84	0	177	177	0	123	123
Fats and oils	36	36	36	25	25	25	38	38	38	35	35	35	45	44	44	39	38	38	44	44	44	40	40	40
Soft fat and vegetable oils	3	3	3	2	2	2	17	17	17	16	16	16	42	41	41	36	35	35	21	21	21	20	20	20

and	Hard fat	33	33	33	23	24	24	20	21	21	19	19	19	4	4	4	3	3	3	23	23	23	20	20	20
	butter																								
	Miscellaneous	67	67	67	59	60	60	102	103	103	101	101	101	73	71	71	64	63	63	120	120	120	115	115	115
Drinks		2328	2339	2339	2310	2324	2324	1632	1647	1647	1415	1419	1419	1076	1057	1057	986	966	966	1763	1778	1778	1702	1712	1712
	Coffee, tea and water	1668	1683	1683	1925	1938	1938	914	921	921	1178	1182	1182	839	823	823	872	854	854	1338	1349	1349	1486	1494	1494
	Sweet beverages	249	248	248	221	222	222	131	133	133	124	124	124	65	64	64	53	52	52	181	183	183	141	141	141
	Alcoholic beverages	411	409	409	165	164	164	587	593	593	113	113	113	173	170	170	62	61	61	244	246	246	76	76	76
Total		3653	3669	3669	3559	3583	3583	2654	2677	2677	2377	2384	2384	2533	2487	2487	2293	2246	2246	3153	3180	3180	2955	2973	2973
NRD15.3 score		872	884	894	863	873	880	830	846	868	842	859	872	1021	1013	1024	994	994	1001	842	853	866	827	840	850
GHGE ^b		6.63	4.68	4.68	4.84	3.71	3.71	6.61	4.70	4.70	4.74	3.77	3.77	6.01	4.24	4.24	4.92	3.55	3.55	7.35	5.11	5.11	5.85	4.25	4.25
GHGE % of observed		100	70.6	70.6	100	76.7	76.7	100	71.1	71.1	100	79.5	79.5	100	70.5	70.5	100	72.2	72.2	100	69.5	69.5	100	72.6	72.6

^A Average amount of food consumed by the population in gram per 2500 kcal for men and per 2000 kcal for women.

^B kg CO₂-eq per day.

Supplementary Table 6 Estimated prevalence (%) of nutrient inadequacies in the observed, full meat replaced, and full fortified meat replaced diets^a

	Denmark						Czech Republic						Italy						France					
	Men			Women			Men			Women			Men			Women			Men			Women		
	Obs	Full meat replacer	Full fortified	Obs	Full meat replacer	Full fortified	Obs	Full meat replacer	Full fortified	Obs	Full meat replacer	Full fortified	Obs	Full meat replacer	Full fortified	Obs	Full meat replacer	Full fortified	Obs	Full meat replacer	Full fortified	Obs	Full meat replacers	Full fortified
Dietary fibre	66	36	36	55	51	51	91	68	68	97	88	88	72	48	48	85	68	68	86	53	53	94	77	77
Protein	4	12	12	0	4	4	10	17	17	16	25	25	1	6	6	1	6	6	2	8	8	3	11	11
Iron	39	29	3	64	63	58	36	42	10	96	97	87	19	18	5	75	75	63	26	27	10	74	74	56
Magnesium	26	16	16	0	0	0	54	42	42	57	51	51	44	34	34	44	36	36	56	35	35	55	42	42
Calcium	34	3	3	31	3	3	76	36	36	75	44	44	58	9	9	70	23	23	37	3	3	48	12	12
Zinc	10	42	42	50	50	50	68	89	89	66	78	78	12	30	30	9	22	22	17	40	40	18	37	37
Potassium	39	36	36	60	59	59	97	96	96	98	98	98	60	61	61	78	79	79	63	58	58	82	79	79
Vitamin A	26	49	49	27	41	41	52	59	59	49	54	54	28	39	39	29	38	38	37	47	47	33	44	44
Vitamin D	99	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100	100	100	100
Vitamin E	91	32	32	73	47	47	42	15	15	37	19	19	24	28	28	28	30	30	42	18	18	30	15	15
Vitamin B1	5	21	6	11	31	13	14	28	6	27	40	18	32	40	29	39	43	36	19	32	16	28	38	25
Vitamin B2	27	34	11	52	57	35	80	80	43	86	87	71	42	54	31	50	61	42	18	26	9	28	37	20
Vitamin B3	0	8	1	1	17	6	10	51	9	50	86	57	11	46	18	37	58	31	24	63	25	42	72	44
Vitamin B12	29	50	44	40	59	52	39	62	54	54	67	63	23	44	40	26	45	42	34	50	46	36	53	50
Folate	33	22	22	42	36	36	81	58	58	80	71	71	62	51	51	59	55	55	59	38	38	63	51	51

^A Prevalence of nutrient inadequacies were calculated using the gender-specific Population Reference Intake (PRI), and Adequate Intake (AI) if PRI cannot be set, of the European Food Safety Authority (EFSA).