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D18 Subpopulation intakes

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D18: Subpopulation intake: regional differences in Finland

In food consumption among adult males fruit consumption was higher in North Carelia than in other areas (capital area, Turku area, North Savo, Oulu province), whereas consumption of dairy products was lower on North Savo and Oulu province than elsewhere. Consumption of fats was lower in Turku area than in other areas.

In nutrient intakes among adult males n-3 intake was higher in North Savo than in other areas. Total fat intake was lower in Turku area than elsewhere. In North Carelia vitamin C intake from supplements was lower in North Savo than in other areas, but intake of folic acid from supplements was higher in Turku and capital areas than elsewhere.

In adult females consumption of meat and meat products was higher in Oulu province than in other areas, whereas consumption of fish and fish products was lower in Turku area and in Oulu province. Consumption of alcoholic beverages was higher in capital and Turku areas. In nutrient intakes vitamin D was lower in North Savo and Turku areas. In intakes from supplements vitamin C intake was higher in Turku and capital areas.

In children regional differences were rarer, especially in small children. In addition, dietary supplement use in general was low among children. In one year old boys consumption of non-alcoholic beverages was higher in Oulu area than in Tampere area. Sodium chloride intake was higher in Oulu area than in Tampere area. In one year old girls consumption of fruits and fish and shellfish was higher in Tampere area than in Oulu area, whereas consumption of fats and cakes was higher in Oulu area than in Tampere area.

In three year old children the regional differences were more common than among one year olds. Consumption of potatoes and vegetables in boys was higher in Tampere area than in Oulu area, whereas consumption of fish and shellfish and fats was higher in Oulu than in Tampere. In girls, consumption of vegetables and meat and meat products was higher in Tampere area than in Oulu area, whereas consumption of fats was higher in Oulu area than in Tampere area. Folate intake was higher in Tampere area than in Oulu area.

In six year old children the regional differences were approximately as common as among three year olds. Consumption of vegetables and fish and shellfish in boys was more common in Tampere area than in Oulu area. Intakes of DHA and folate in boys were higher among Tampere area than in Oulu area. In girls vegetable consumption was higher in Tampere area than in Oulu area. Intakes of DHA and vitamin D were higher in Oulu areas than in Tampere area.

Regional differences among pregnant women in food consumption and nutrient intake were rare. Consumption of legumes was higher in Tampere area than in Oulu area, whereas consumption of cakes was higher in Oulu area than in Tampere area. Use of dietary supplements was more common in Tampere area than in Oulu area.

g/day

Age group 3 years

	Age group 3 years															
	Tampere (n=282)								Oulu (n=264)							
	mean	SD	Fractile				0,95 % of users	mean	SD	Fractile				0,95 % of users		
		0,05	0,25	0,5	0,75					0,05	0,25	0,5	0,75			
MALES																
Main food groups (ingredient level, classification used in EPIC):																
Potatoes and other tubers	76,7	49,8	11,6	44,8	69,4	105	159	97,52 %	66,6	44,63	3,25	35,6	60,92	92,66	144,4	96,21 %
Vegetables	58,9	44,8	7,81	27,9	50,7	77,6	143	98,94 %	43,7	38,57	3,43	15,9	35,87	60,42	123,6	98,11 %
Legumes	3,71	8,14	0	0	0	3,33	21,7	35,11 %	2,55	6,46	0	0	0	0,102	16,14	25,38 %
Fruits	264	155	39,9	172	243	337	527	100,00 %	241	156,7	35,4	124	209,4	329,6	509,5	99,62 %
Dairy products	538	252	65	380	558	697	979	96,81 %	535	249,5	144	383	526,8	691	894,9	98,48 %
Cereals and cereal products	79,4	54	20	50,2	71,7	98,3	150	99,65 %	82,3	51,48	22,7	48,8	69,15	103,7	183,7	100,00 %
Meat and meat products	79,1	42,5	28,9	50,6	71,7	97,8	156	99,65 %	74,3	36,6	24,2	47,1	69,13	97,43	140,6	99,62 %
Fish and shellfish	8,39	14,2	0	0	0	12,3	31,2	46,45 %	9,91	16,14	0	0	0	13,98	40	49,62 %
Eggs and egg products	9,09	12,1	0	1,4	4,84	12,3	34,1	85,82 %	8,65	10,55	0	1,43	5,588	10,77	29,59	87,50 %
Fat	15,5	9,9	3,64	9,74	13,2	18,4	32,8	100,00 %	18,1	9,66	6,22	11,5	16,18	22,42	34,32	100,00 %
Sugar and confectionary	36,9	26,6	6,56	16,5	32	47,9	81,8	100,00 %	39,9	28,75	8,08	17	34,76	51,22	93,1	100,00 %
Cakes	18	21,6	0	2,67	10	25,3	58,2	79,43 %	21,9	23,72	0	5,17	13,58	30	66,67	84,85 %
Non alcoholic beverages	378	205	124	248	343	467	788	100,00 %	369	205,5	121	229	336,9	473,2	763,5	100,00 %
Alcoholic beverages	0,01	0,11	0	0	0	0	0	1,42 %	0,09	1,267	0	0	0	0	0	1,14 %
Condiments and sauces	5,17	7,51	0	0,55	2,21	6,07	20,7	85,46 %	7,95	12,13	0	0,54	3,953	10	29,63	84,47 %
Soups, bouillon	8,76	26,9	0	0	0	0	66,7	13,48 %	4,33	20,74	0	0	0	0	16,67	8,33 %
Miscellaneous	5	17,8	0	0	0	1,27	30,2	46,81 %	18,3	62,4	0	0	0,075	2,676	105	56,82 %
Unclassified																
Nutrients:																
Energy, KJ/day	5402	1020	3876	4654	5376	6004	7010	100,00 %	5337	970,8	3967	4678	5262	5818	7140	100,00 %
Total fat, g/day	44,5	14,3	24,6	35,4	43,1	51,2	67,7	100,00 %	46,2	11,94	29,9	38,1	44,3	52,88	68,15	100,00 %
n-3 fatty acids (total) (g/day)	1,21	0,57	0,51	0,87	1,12	1,41	2,24	100,00 %	1,18	0,566	0,51	0,79	1,032	1,469	2,4	100,00 %
DHA, mg/day	68,5	94,7	4,32	16,7	32,4	79,7	250	99,65 %	96,5	156,5	5,43	15,6	35	99,08	401,5	99,62 %
EPA, mg/day	23,8	34,3	1,15	4,49	10,9	27,4	94,1	99,29 %	35,8	58,77	2,63	6,6	12,03	37,19	163,5	99,62 %
Selenium, µg/day	34,8	8,98	21,4	28,8	34,2	39,5	50,8	100,00 %	35,3	9,968	20,4	28	34,34	41,44	53,53	100,00 %
Vitamin D, µg/day	3,92	2	1,24	2,66	3,67	4,92	7,36	100,00 %	4,35	3,221	1,06	2,15	3,53	5,344	11,21	100,00 %
Sodium chloride, g/day	4654	1312	2678	3758	4622	5509	6795	100,00 %	4974	1430	2763	4021	4857	5771	7330	100,00 %
Folate, µg/day	129	43,4	75,6	101	123	148	210	100,00 %	122	46,38	71,4	93,6	113,1	137,3	197	100,00 %
Dietary supplements																
Vitamin C, g/day	9,2	21	0	0	0	0	50	20,57 %	2,99	10,78	0	0	0	0	30	8,71 %
n-3 fatty acids (total), g/day	0	0,07	0	0	0	0	0	0,35 %	0	6E-04	0	0	0	0	0	0,38 %
Folic acid, µg/day	9,14	25,5	0	0	0	0	75	17,73 %	4,45	18,99	0	0	0	0	43,5	7,95 %

g/day

Age group 6 years

	Age group 6 years																			
	Tampere (n=269)								Oulu (n=175)											
	mean	SD	Fractile		0,05	0,25	0,5	0,75	0,95	% of users	mean	SD	Fractile		0,05	0,25	0,5	0,75	0,95	% of users
MALES																				
Main food groups (ingredient level, classification used in EPIC):																				
Potatoes and other tubers	91,4	52,17	18,6	51,5	87,18	121	175	98,14 %	86,9	49,21	16,49	53	80,07	114	175	98,86 %				
Vegetables	69,2	47,22	12,3	34,2	60,95	92,5	159	100,00 %	48,1	34,96	4	22	40,56	68,1	123	99,43 %				
Legumes	3,39	7,717	0	0	0	0,76	19,1	30,48 %	1,92	6,089	0	0	0	0	16,1	21,14 %				
Fruits	286	178,4	38	161	248,5	394	636	99,63 %	256	162,2	42,28	130	228,8	349	590	98,29 %				
Dairy products	651	235,5	244	498	641,6	805	1028	99,26 %	669	259,5	268	507	644,4	837	1144	98,29 %				
Cereals and cereal products	125	59,53	49,6	87,3	115,4	149	222	100,00 %	113	51,01	41,8	75,4	108,5	145	217	100,00 %				
Meat and meat products	96,4	47,61	33,5	62,4	87,77	121	187	100,00 %	91,6	42,37	34,49	62,1	84,4	112	172	100,00 %				
Fish and shellfish	13,4	19,61	0	0	1,674	20,8	55	52,42 %	10,2	14,01	0	0	2,236	18,1	41,1	50,86 %				
Eggs and egg products	12,4	12,82	0	3,34	8,412	18,1	38,3	94,80 %	12,9	13,74	0	2,97	8,312	17,5	45,2	89,14 %				
Fat	22,9	10,41	10,2	15,4	21,02	28,2	43	100,00 %	20	8,835	7,23	13,1	19,6	26,1	35	100,00 %				
Sugar and confectionary	49,9	32,15	8,88	24,5	44,86	64,3	113	100,00 %	54,4	36,22	10,26	26,7	45,78	69,7	129	100,00 %				
Cakes	26,4	27,72	0	5	20	39	79	82,16 %	27,3	27,99	0	5,33	21,33	37	89,3	82,86 %				
Non alcoholic beverages	406	200	149	263	378,4	507	802	100,00 %	396	184,1	143,7	249	384,3	513	710	100,00 %				
Alcoholic beverages	0,03	0,347	0	0	0	0	0	0,74 %	0,2	2,52	0	0	0	0	0	1,71 %				
Condiments and sauces	8,44	9,688	0	1,11	5,466	12,1	29	91,82 %	7,54	9,702	0	1,4	5,041	10,3	28,6	92,00 %				
Soups, bouillon	9,54	30,2	0	0	0	0	66,7	13,75 %	7,84	26,33	0	0	0	0	83,3	12,00 %				
Miscellaneous	5,16	61,18	0	0	0	1,05	5,33	49,07 %	4,88	36,63	0	0	0,101	1,07	6,51	56,57 %				
Unclassified																				
Nutrients:																				
Energy, KJ/day	6783	1140	5134	5993	6687	7465	8596	100,00 %	6558	1238	4694	5834	6443	7328	8604	100,00 %				
Total fat, g/day	57,6	14,94	37,7	47	55,93	66,6	82,2	100,00 %	55,1	16,23	31,85	44,8	52,75	63	87,9	100,00 %				
n-3 fatty acids (total) (g/day)	1,64	0,603	0,83	1,17	1,574	1,93	2,81	100,00 %	1,51	0,615	0,595	1,02	1,462	1,81	2,62	100,00 %				
DHA, mg/day	111	158,6	11,8	26,4	54,42	106	442	100,00 %	97,9	135,5	6,98	22,3	51,32	113	410	99,43 %				
EPA, mg/day	38,2	55,45	1,98	7,32	16,63	41,9	149	99,63 %	34,3	47,55	2,423	7,05	14,8	40,3	144	99,43 %				
Selenium, µg/day	44,7	11,22	28,6	37	43,1	50,3	67,3	100,00 %	42,4	10,08	27,5	34,7	42,52	49	59,9	100,00 %				
Vitamin D, µg/day	5,01	2,094	2,57	3,55	4,586	5,9	9,02	100,00 %	5	2,116	1,717	3,57	4,71	6,1	9,16	100,00 %				
Sodium chloride, g/day	5999	1729	4028	4967	5841	6848	8158	100,00 %	5680	1322	3773	4723	5635	6552	7858	100,00 %				
Folate, µg/day	164	53,18	96,2	133	153,8	185	256	100,00 %	147	50,33	83,22	114	140,5	167	240	100,00 %				
Dietary supplements																				
Vitamin C, g/day	7,05	20,29	0	0	0	0	45	15,99 %	7,05	29,71	0	0	0	0	45	14,86 %				
n-3 fatty acids (total), g/day	0,03	0,362	0	0	0	0	0	0,74 %	0	0	0	0	0	0	0	0,00 %				
Folic acid, µg/day	8,98	28,04	0	0	0	0	75	14,87 %	7,68	22,55	0	0	0	0	66,7	15,43 %				

g/day

Age group 3 years

	Tampere (n=282)							Oulu (n=264)								
	mean	SD	Fractile				% of users	mean	SD	Fractile				% of users		
			0,05	0,25	0,5	0,75				0,05	0,25	0,5	0,75			
MALES																
FEMALES																
Main food groups (ingredient level, classification used in EPIC):																
Potatoes and other tubers	67,3	41,2	13,7	37,4	60,3	87	146	99,26 %	59,1	38,58	3,46	32	56,45	82,47	128,2	97,83 %
Vegetables	59,8	42,1	8,41	29,6	53,6	80,5	134	100,00 %	41,1	33,96	4,81	16,2	31	59,5	97,02	98,70 %
Legumes	2,24	7,49	0	0	0	0,81	13,5	29,37 %	1,79	5,023	0	0	0	0,37	12,62	26,96 %
Fruits	238	144	48,6	137	217	317	495	99,63 %	234	140,4	48,2	133	206,3	309,9	511,9	99,57 %
Dairy products	515	234	104	371	521	657	880	95,91 %	520	217,9	68,2	398	514,3	653,1	884,6	99,13 %
Cereals and cereal products	76,7	42,5	23,7	49,8	69,5	96,7	148	99,63 %	74,8	44,43	21,7	43,4	66,73	97,06	161,8	100,00 %
Meat and meat products	72,2	37,8	24,6	47,5	64,9	90,6	133	99,63 %	61,1	34,42	14	37,9	56,34	75,57	125,4	99,57 %
Fish and shellfish	8,88	13,3	0	0	0	14,7	37,2	48,33 %	8,84	14,04	0	0	0	12,58	41,15	47,83 %
Eggs and egg products	8,11	9,59	0	1,7	5,11	10,4	27,5	86,99 %	8,96	10,29	0	1,45	5,002	13,02	27,45	87,39 %
Fat	14,4	9,31	5,1	8,65	12,7	17,6	27,4	100,00 %	17,1	9,027	6,4	10,8	15,87	20,95	32,02	100,00 %
Sugar and confectionary	33,5	23,6	5,7	15	27,4	46,4	73,8	99,63 %	40,5	25,76	6,86	21,8	35,23	54,91	94,21	99,57 %
Cakes	16,4	17,3	0	3	12,7	24,5	47,7	79,55 %	21,9	23,78	0	4,33	14,42	32	68,67	85,22 %
Non alcoholic beverages	347	170	113	225	323	455	677	100,00 %	314	172,8	90,4	188	287,3	412,2	652,8	100,00 %
Alcoholic beverages	0,02	0,22	0	0	0	0	0	2,23 %	0	0,015	0	0	0	0	0	0,87 %
Condiments and sauces	4,81	8,03	0	0,31	2	5,39	20,9	84,01 %	4,93	7,346	0	0,13	2,349	6,259	20,59	77,39 %
Soups, bouillon	9,15	31,5	0	0	0	0	66,7	13,75 %	3,7	16,4	0	0	0	0	33,33	6,52 %
Miscellaneous	5,99	33,9	0	0	0,01	1,11	20,7	50,19 %	19,4	94,33	0	0	0,091	2	71,67	55,65 %
Unclassified																
Nutrients:																
Energy, KJ/day	4975	905	3499	4377	4911	5556	6562	100,00 %	5010	960,9	3653	4405	4898	5501	6620	100,00 %
Total fat, g/day	40,8	11,6	25,2	32,6	39,6	47	62,3	100,00 %	43,4	12,64	25,6	35,6	42,19	49,78	66,62	100,00 %
n-3 fatty acids (total) (g/day)	1,13	0,52	0,54	0,75	1,02	1,34	2,2	100,00 %	1,04	0,508	0,5	0,7	0,941	1,265	1,808	100,00 %
DHA, mg/day	81,9	120	5,26	16,4	38,5	90,4	320	100,00 %	80	122,2	3,68	13,3	30,19	70,51	328,1	99,13 %
EPA, mg/day	28,9	48,6	1,44	4,78	10,9	31,5	119	98,51 %	30,6	51,9	1,73	4,56	10,68	27,23	126,2	99,57 %
Selenium, µg/day	32,4	8,44	20,8	26	31,7	37,5	47,8	100,00 %	31,8	8,996	19,5	25,6	30,76	35,94	47,72	100,00 %
Vitamin D, µg/day	3,87	1,98	1,23	2,55	3,65	4,78	7,26	100,00 %	4,04	3,472	0,92	1,83	3,123	4,874	11,18	100,00 %
Sodium chloride, g/day	4295	1127	2577	3558	4162	5042	6343	100,00 %	4403	1242	2785	3474	4273	5125	6494	100,00 %
Folate, µg/day	123	42,1	75,9	96,3	113	137	205	100,00 %	108	31,56	66,5	86,4	102,4	122,6	162,7	100,00 %
Dietary supplements																
Vitamin C, g/day	5,4	14,7	0	0	0	0	45	15,24 %	3,05	11,61	0	0	0	0	30	7,83 %
n-3 fatty acids (total), g/day	0	0,04	0	0	0	0	0	0,74 %	0	0	0	0	0	0	0	0,00 %
Folic acid, µg/day	7,33	22,1	0	0	0	0	75	15,24 %	4,02	17,31	0	0	0	0	25	6,52 %

g/day

Age group 6 years

	Tampere (n=269)														Oulu (n=175)					
	mean	SD	Fractile		0,05	0,25	0,5	0,75	0,95	% of users	mean	SD	Fractile		0,05	0,25	0,5	0,75	0,95	% of users
MALES																				
FEMALES																				
Main food groups (ingredient level, classification used in EPIC):																				
Potatoes and other tubers	81,2	48,98	11,9	47,5	79,66	103	174	98,31 %	82,2	42,49	21,07	51	79,95	112	156	98,81 %				
Vegetables	65,8	43,26	11,5	40	56,86	83	154	99,16 %	49,6	33,4	8,425	25,7	40,92	70,2	111	100,00 %				
Legumes	2,83	6,845	0	0	0	0,79	19,6	29,54 %	1,79	5,447	0	0	0	0	12,5	20,83 %				
Fruits	256	153,9	61	137	234,9	352	563	99,16 %	238	158,8	35,24	117	204,5	337	553	100,00 %				
Dairy products	571	223,6	210	431	561,3	734	945	100,00 %	605	236,5	252,7	448	617,9	759	984	98,81 %				
Cereals and cereal products	102	56,02	30,7	66,3	94,36	126	200	100,00 %	105	49,73	36	66,1	98,69	138	197	100,00 %				
Meat and meat products	81,7	38,72	22,8	54,2	76,35	108	149	99,58 %	79,7	38,91	30,13	54,1	72,97	97,9	150	100,00 %				
Fish and shellfish	9,95	16,76	0	0	0	13,6	50,1	42,62 %	10,3	14,82	0	0	2,699	17,4	33,8	54,17 %				
Eggs and egg products	10,9	11,83	0	3,37	6,874	13,5	35,2	92,83 %	10,1	11,19	0	2,1	6,883	13,5	37,5	92,86 %				
Fat	19,3	8,634	6,48	13,8	18,86	23,7	34,3	99,58 %	22	10,3	7,377	14,8	20,38	29,2	41,6	100,00 %				
Sugar and confectionary	49,5	30,79	9,55	27,8	47,09	67,2	108	100,00 %	51,3	30,85	11,08	29,3	46,24	67,7	121	100,00 %				
Cakes	25,6	25,92	0	6,67	18	39,3	73,2	85,65 %	28,2	28,29	0	8	20,33	41,7	80,7	81,55 %				
Non alcoholic beverages	396	200,7	149	248	371,8	498	801	100,00 %	386	215,6	96,81	250	337,2	479	797	100,00 %				
Alcoholic beverages	0,04	0,432	0	0	0	0	0	0,84 %	0,03	0,211	0	0	0	0	0	2,38 %				
Condiments and sauces	6,18	11,12	0	0,69	3,419	7,73	20	86,92 %	6,96	10,81	0	0,37	3,539	9,03	34,3	80,36 %				
Soups, bouillon	7,15	23,77	0	0	0	0	66,7	11,39 %	2,08	11,99	0	0	0	0	0	3,57 %				
Miscellaneous	4,48	28,22	0	0	0	1,39	13	47,68 %	3,62	19,75	0	0	0,023	1,01	9,33	51,79 %				
Unclassified																				
Nutrients:																				
Energy, KJ/day	5965	1030	4219	5276	6020	6567	7633	100,00 %	6100	1180	4110	5252	6087	6918	8220	100,00 %				
Total fat, g/day	50	12,11	30,6	43	49,5	57	71,4	100,00 %	53,4	14,39	31,64	43,1	51,34	62,7	79,3	100,00 %				
n-3 fatty acids (total) (g/day)	1,37	0,508	0,67	0,99	1,355	1,65	2,21	100,00 %	1,4	0,533	0,722	0,99	1,312	1,66	2,37	100,00 %				
DHA, mg/day	80,4	111,5	4,76	15,9	36,54	86,1	318	99,58 %	89,3	135,5	7,428	20,4	44,41	91,6	382	100,00 %				
EPA, mg/day	27,4	38,7	1,14	5,08	10,7	30,5	114	99,16 %	31,6	49,73	2,108	6,23	13,62	32,2	134	99,40 %				
Selenium, µg/day	38,4	9,722	23,6	31,9	37,95	44	53,7	100,00 %	38	9,837	22,42	31,5	36,91	42,4	56,8	100,00 %				
Vitamin D, µg/day	4,26	1,852	1,55	3	3,994	5,32	7,39	100,00 %	4,63	1,963	1,782	3,34	4,354	5,54	8,55	100,00 %				
Sodium chloride, g/day	5130	1361	2968	4233	5130	5920	7697	100,00 %	5159	1425	3284	4115	5056	6086	7255	100,00 %				
Folate, µg/day	143	51,51	85,5	107	133,5	164	246	100,00 %	132	40,61	79,57	104	126,9	151	207	100,00 %				
Dietary supplements																				
Vitamin C, g/day	7,23	15,92	0	0	0	0	45	22,36 %	3,17	11,07	0	0	0	0	30	9,52 %				
n-3 fatty acids (total), g/day	0	0,031	0	0	0	0	0	0,42 %	0	0	0	0	0	0	0	0,00 %				
Folic acid, µg/day	10	24,1	0	0	0	0	75	21,94 %	3,83	14,87	0	0	0	0	25	8,93 %				