



## SUPPLEMENTARY DATA

**Table S1. Prevalence of general obesity (BMI $\geq$ 30 kg/m<sup>2</sup>) by study, sex, and age.**

Age, years	Men		Women	
	KYH† (N=1732)	Tromsø7‡ (N=9300)	KYH† (N=2389)	Tromsø7‡ (N=8346)
	Percent (95% CI)		Percent (95% CI)	
40-44	23.1 (18.1-29.1)	26.4 (24.2-28.7)	22.6 (18.5-27.3)	21.2 (19.3-23.2)
45-49	26.8 (21.7-32.6)	27.5 (25.3-29.7)	27.2 (22.8-32.1)	24.9 (22.9-27.0)
50-54	26.0 (21.2-31.5)	25.5 (23.4-27.9)	34.4 (29.8-39.3)	20.9 (19.1-22.9)
55-59	28.6 (23.7-34.1)	24.9 (22.7-27.3)	43.9 (39.2-48.8)	21.3 (19.4-23.5)
60-64	27.2 (22.7-32.1)	25.3 (23.0-27.7)	48.6 (43.8-53.4)	21.4 (19.3-23.6)
65-69	29.0 (24.4-34.1)	24.0 (21.7-26.6)	48.2 (43.7-52.7)	22.5 (20.2-24.9)
<b>Total</b>	27.0 (25.0-29.1)	25.7 (24.8-26.7)	38.5 (36.6-40.5)	22.0 (21.2-22.9)

BMI – body mass index. †Missing data in KYH: weight – 13 (0.3%), height – 7 (0.17%). ‡Missing data in Tromsø7: weight – 40 (0.2%), height – 39 (0.2%).

**Table S2. Distribution of BMI categories according to age and study in women.**

Age, years	Underweight, BMI<18.5	Normal weight, BMI 18.5-24.9	Overweight, BMI 25.0–29.9	Obesity I, BMI 30.0–34.9	Obesity II, BMI 35.0–39.9	Obesity III, BMI >=40.0	Total
KYH, Abs (%)							
40-44	12 (3)	167 (48)	92 (26)	49 (14)	19 (5)	11 (3)	350 (100)
45-49	5 (1)	152 (44)	97 (28)	54 (15)	26 (7)	15 (4)	349 (100)
50-54	4 (1)	121 (32)	123 (33)	75 (20)	35 (9)	20 (5)	378 (100)
55-59	3 (1)	92 (22)	135 (33)	113 (28)	43 (10)	24 (6)	410 (100)
60-64	1 (0)	67 (16)	149 (35)	121 (29)	56 (13)	28 (7)	422 (100)
65-69	2 (0)	65 (14)	177 (38)	150 (32)	50 (11)	27 (6)	471 (100)
<b>Total</b>	<b>27 (1)</b>	<b>664 (28)</b>	<b>773 (32)</b>	<b>562 (24)</b>	<b>229 (10)</b>	<b>125 (5)</b>	<b>2380 (100)</b>
Tromsø7, Abs (%)							
40-44	15 (1)	744 (44)	561 (34)	244 (15)	74 (4)	37 (2)	1675 (100)
45-49	11 (1)	726 (43)	538 (32)	277 (16)	107 (6)	38 (2)	1697 (100)
50-54	14 (1)	740 (44)	591 (35)	246 (14)	80 (5)	30 (2)	1701 (100)
55-59	10 (1)	594 (39)	606 (39)	228 (15)	78 (5)	22 (1)	1538 (100)
60-64	10 (1)	540 (38)	562 (40)	227 (16)	54 (4)	21 (1)	1414 (100)

65-69	14 (1)	449 (36)	507 (41)	217 (17)	46 (4)	18 (1)	1251 (100)
<b>Total</b>	<b>74 (1)</b>	<b>3793 (41)</b>	<b>3365 (36)</b>	<b>1439 (16)</b>	<b>439 (5)</b>	<b>166 (2)</b>	<b>9276 (100)</b>

Abs – absolute number of participants with corresponding characteristic. BMI – body mass index

**Table S3. Distribution of BMI categories according to age and study in men.**

Age, years	Underweight, BMI<18.5	Normal weight, BMI 18.5-24.9	Overweight, BMI 25.0–29.9	Obesity I, BMI 30.0–34.9	Obesity II, BMI 35.0–39.9	Obesity III, BMI =>40.0	Total
<b>KYH, Abs (%)</b>							
40-44	3 (1)	66 (29)	104 (46)	39 (17)	10 (4)	3 (1)	225 (100)
45-49	2 (1)	81 (32)	103 (41)	51 (20)	14 (6)	3 (1)	254 (100)
50-54	3 (1)	80 (29)	122 (44)	55 (20)	12 (4)	5 (2)	277 (100)
55-59	3 (1)	74 (26)	130 (45)	63 (22)	13 (4)	7 (2)	290 (100)
60-64	3 (1)	89 (26)	160 (46)	76 (22)	15 (4)	3 (1)	346 (100)
65-69	4 (1)	89 (27)	144 (43)	71 (21)	20 (6)	6 (2)	334 (100)
<b>Total</b>	<b>18 (1)</b>	<b>479 (28)</b>	<b>763 (44)</b>	<b>355 (21)</b>	<b>84 (5)</b>	<b>27 (2)</b>	<b>1726 (100)</b>
<b>Tromsø7, Abs (%)</b>							
40-44	2 (0)	339 (23)	742 (50)	293 (20)	75 (5)	20 (1)	1471 (100)
45-49	2 (0)	354 (22)	788 (50)	331 (21)	81 (5)	21 (1)	1577 (100)
50-54	2 (0)	336 (23)	729 (51)	276 (19)	68 (5)	22 (2)	1433 (100)
55-59	3 (0)	304 (22)	710 (52)	279 (21)	49 (4)	10 (1)	1355 (100)
60-64	3 (0)	334 (25)	649 (49)	269 (20)	52 (4)	12 (1)	1319 (100)
65-69	2 (0)	272 (23)	617 (53)	236 (20)	39 (3)	7 (1)	1173 (100)
<b>Total</b>	<b>14 (0)</b>	<b>1939 (23)</b>	<b>4235 (51)</b>	<b>1684 (20)</b>	<b>364 (4)</b>	<b>92 (1)</b>	<b>8328 (100)</b>

Abs – absolute number of participants with corresponding characteristic. BMI – body mass index

**Table S4. Prevalence of abdominal obesity (WHR>0.9 for men and>0.85 for women) by study, sex and age.**

Age, years	Men		Women	
	KYH† (N=1732)	Tromsø7‡ (N=8346)	KYH† (N=2389)	Tromsø7‡ (N=9300)
	Percent (95% CI)		Percent (95% CI)	
40-44	69.3 (63.0-75.0)	53.6 (51.0-56.1)	25.9 (21.6-30.8)	11.5 (10.0-13.1)
45-49	66.1 (60.1-71.7)	65.1 (62.7-67.4)	26.9 (22.5-31.8)	14.3 (12.7-16.1)
50-54	75.3 (69.9-80.0)	70.9 (68.5-73.2)	41.3 (36.5-46.3)	14.9 (13.3-16.7)
55-59	78.3 (73.2-82.7)	78.8 (76.5-80.9)	54.0 (49.2-58.8)	21.5 (19.5-23.6)

60-64	79.5 (74.9-83.4)	82.2 (80.0-84.2)	58.6 (53.9-63.2)	23.2 (21.1-25.5)
65-69	83.3 (78.9-86.9)	87.9 (85.9-89.7)	65.5 (61.1-69.7)	28.0 (25.6-30.5)
<b>Total</b>	76.1 (74.0-78.0)	72.2 (71.2-73.2)	47.0 (45.0-49.0)	18.3 (17.5-19.1)

†Missing data in KYH: waist circumference – 5 (0.1%), hip circumference – 5 (0.1%). ‡Missing data in Tromsø7: waist circumference – 77 (0.4%), hip circumference – 72 (0.4%).

**Table S5. Cross-tabulation of general obesity (BMI $\geq$ 30 kg/m<sup>2</sup>) and abdominal obesity (WHR $>$ 0.9 for men and $>$ 0.85 for women) for men and women in Tromsø7 and in KYH.**

General obesity	Abdominal obesity, Abs (%)		Total
	Yes	No	
KYH, men			
Yes	458 (98.3)	8 (1.7)	466
No	854 (67.8)	406 (32.2)	1260
Tromsø7, men			
Yes	2053 (96.2)	82 (3.8)	2135
No	3942 (63.9)	2224 (36.1)	6166
KYH, women			
Yes	665 (72.6)	251 (27.4)	916
No	453 (30.9)	1011 (69.1)	1464
Tromsø7, women			
Yes	812 (39.9)	1122 (60.1)	2034
No	877 (12.2)	6332 (87.8)	7209

Abs – absolute number of participants with corresponding characteristic

**Table S6. Proportions of participants with overweight (BMI 25.0-29.9 kg/m<sup>2</sup>) among men and women in Tromsø7 and in KYH with abdominal obesity (WHR $>$ 0.9 for men and $>$ 0.85 for women) but without general obesity (BMI $\geq$ 30 kg/m<sup>2</sup>).**

	Number of participants with AO but without GO	Overweight, Abs (%)
	N	Abs (%)
<b>KYH</b>		
Men	854	653 (76.5)
Women	453	361 (79.7)
<b>Tromsø7</b>		
Men	3942	3200 (81.2)
Women	877	663 (75.6)

Abs – absolute number of participants with corresponding characteristic