

Supplementary Table 1. Breast cancer risk factors in ALSPAC mothers of European ancestry.

variable	mean	standard deviation	N
sex hormone binding globulin (SHBG, nmol/l) in pregnancy	238.2	133.2	217
testosterone (nmol/l) in pregnancy	3.2	1.3	217
IGF-I (ng/ml) in pregnancy	193.4	56.3	553
IGF-II (ng/ml) in pregnancy	641.4	213.5	514
IGFBP-3 (ng/ml) in pregnancy	5384.0	1366.7	553
mother's natural mother's age at birth (years)	26.8	5.8	10332
age of mother at birth (years)	28.5	4.7	10685
age at menarche (years)	12.8	1.5	10027
age at menopause (years) (child ~ 20 years old)	48.6	4.2	1543
birth weight of mother (g)	3263.3	604.7	6984
BMI (kg/m ²) (~ 12 weeks gestation)	23.0	3.8	10407
BMI (kg/m ²) (May-Sept 2010)	25.7	5.1	3204
BMI (kg/m ²) (FOM1: 2009-2011)	26.6	5.4	4496
BMI (kg/m ²) (FOM2: 2011-2013)	26.3	5.2	2725
pre-pregnancy weight (kg)	61.8	11.0	10513
weight (kg) (May-Sept 2010)	69.4	14.0	3235

weight (kg) (FOM1: 2009-2011)	71.7	14.8	4496
weight (kg) (FOM2: 2011-2013)	70.9	14.2	2726
height (cm) (~ 12 weeks gestation)	164.1	6.7	11017
height (cm) (May-Sept 2010)	164.4	6.5	3755
height (cm) (FOM1: 2009-2011)	164.1	6.1	4499
sitting height (cm) (FOM1: 2009-2011)	87.4	3.3	4450
leg length (cm) (FOM1: 2009-2011)	76.8	4.1	4450
height (cm) (FOM2: 2011-2013)	164.3	6.2	2725
sitting height (cm) (FOM2: 2011-2013)	87.2	3.2	2723
leg length (cm) (FOM2: 2011-2013)	77.1	4.2	2722
total body bone mineral density (g/cm ²) (FOM1: 2009-2011)	1.22	0.08	4360
total body bone mineral density (g/cm ²) (FOM2: 2011-2013)	1.20	0.09	2675
daily fat intake (g) (~32 weeks gestation)	71.9	23.2	11178
	N	%	
parity (~18 weeks gestation)	11379		
no children	5053	44.4	
1 child	4022	35.9	
2 children	1609	14.1	
3 or more children	629	5.5	

number of pregnancies after study child (child ~21 months old)	9561		
0	7177	75.1	
1	2153	22.5	
2 or more	231	2.4	
alcohol consumption before this pregnancy	11504		
do not drink	808	7.0	
< once a week	4372	38.0	
> once a week	5038	43.8	
1+/day	1286	11.2	
alcohol consumption (child ~ 8 months old)	10266		
do not drink	1241	12.1	
< once a week	4875	47.5	
> once a week	3780	36.8	
1+/day	370	3.6	
quantity of alcohol mother drinks (child ~21 months old)	9504		
do not drink	1314	13.8	
< once a week	4525	47.6	
> once a week	2837	29.9	
1+/day	828	8.7	
quantity of alcohol mother drinks (child ~33 months old)	8949		
do not drink	988	11.0	
< once a week	4093	45.7	
> once a week	2922	32.7	
1+/day	946	10.6	
quantity of alcohol mother drinks (child ~5 years old)	8335		
do not drink	672	8.1	
< once a week	3229	38.7	
> once a week	3057	36.7	

1+/day	1377	16.5	
years taking contraceptive pill (child ~ 8 years old)	6965		
< 1 year	417	6.0	
1-2 years	617	8.9	
3-4 years	1118	16.0	
5+ years	4813	69.1	
years taking contraceptive pill (child ~ 11 years old)			
< 1 year	383	5.8	
1-2 years	549	8.3	
3-4 years	1071	16.1	
5+ years	4631	69.8	
frequency of alcohol consumption (May-Sept 2010)	3934		
do not drink	384	9.8	
< once a week	1388	35.3	
> once a week	2162	55.0	
duration of breastfeeding last baby (~ 18 weeks gestation)	6483		
not at all	1849	28.5	
< 1 month	872	13.5	
1-3 months	1249	19.3	
> 3 months	2513	38.8	
average time spent exercising in past year (from ~18 weeks gestation to 2010)²	10567		
never	2152	20.4	
≤ once a month	4814	45.6	
≤ once a week	2026	19.2	
2-3 times a week	1001	9.5	
4-5 times a week	312	3.0	
most days	262	2.5	

number of hours of activity per week (from ~18 weeks gestation to 2010) ²	11351	
none	1990	17.5
≤ 3 hours	3874	34.1
> 3 hours	5487	48.3
number of hours of vigorous activity per week (from ~18 weeks gestation to 2010) ²	11355	
none	8000	70.5
< 2 hours	1840	16.2
2-6 hours	1054	9.3
>6 hours	461	4.1
mother has reached menopause (child ~ 20 years old)	3796	
no	2420	63.8
yes	1376	36.2
mother's natural mother had breast cancer (~ 12 weeks gestation)	11205	
no	10844	96.8
yes	361	3.2
mother's natural mother had breast cancer (child ~ 8 years old)	7082	
no	6699	94.6
yes	383	5.4
mother ever had a mammogram (FOM1: 2009-2011)	4516	
no	3350	74.2
yes	1166	25.8
breastfed last baby (~ 18 weeks gestation)	6486	
no	1849	28.5
yes	4637	71.5

mother ever had diabetes (from ~12 weeks gestation to 2010)	11719		
no	11387	97.2	
yes	332	2.8	
mother ever had any cancer (since child was ~6 years old to 2010)	9187		
no	8859	96.4	
yes	328	3.6	
mother ever had an hysterectomy and/or oophorectomy (since child was ~8 years old to 2010)	7586		
no	7168	94.5	
yes	418	5.5	
mother had ever done nightshift work (from ~18 weeks gestation to when child was ~10 years old)	11864		
no	6556	55.3	
yes	5308	44.7	
mother ever took oral contraceptives (from ~12 weeks gestation to 2013)	11986		
no	564	4.7	
yes	11422	95.3	
mother ever used non-oral hormonal contraceptives (since child was ~21 months old to 2013)	10457		
no	7894	75.5	
yes	2563	24.5	
mother ever had hormone replacement therapy (since child was ~9 years old to 2010)	5640		
no	4977	88.2	
yes	663	11.8	

mother ever taken aspirin (from ~18 weeks gestation to 2010) ¹	12073		
no	7506	62.2	
yes	4567	37.8	
mother ever smoked (from ~18 weeks gestation to 2010)	12105		
no	5536	45.7	
yes	6569	54.3	
mother ever had an x-ray (from ~12 weeks gestation to when child was ~33 months old)	11379		
no	8004	70.3	
yes	3375	29.7	
mother exercised at least once a week (from ~18 weeks gestation to 2010)	11783		
no	1518	12.9	
yes	10265	87.1	

The time of variable measurement is shown in parentheses. Variable descriptions were kept as close as possible to ALSPAC's original formulations.

¹The first instance the question was answered took precedence over subsequent responses.

²Yes answer includes responses of daily, often and sometimes.

FOM: Focus On Mothers clinic.

Supplementary Table 2. Breast cancer risk factors in ALSPAC children of European ancestry.

variable	mean	standard deviation	N
sex hormone binding globulin (SHBG, nmol/l) (~ 8 years old)	77.6	31.6	833
sex hormone binding globulin (SHBG, nmol/l) (~ 15 years old)	61.5	30.5	1572
testosterone (nmol/l) (~ 15 years old)	0.9	0.5	1649
androstenedione (ng/dl) (~ 8 years old)	55.7	28.8	772
dehydroepiandrosterone-sulfate (DHEAS, ug/dl) (~ 8 years old)	26.7	25.7	775
IGF-I (ng/ml) (cord blood)	95.5	36.9	629
IGF-I (ng/ml) (~ 7 years old)	143.6	48.6	447
IGF-I (ng/ml) (~ 8 years old)	159.5	55.9	410
IGF-II (ng/ml) (cord blood)	263.0	79.4	631
IGF-II (ng/ml) (~ 7 years old)	470.8	107.4	198
IGFBP-3 (ng/ml) (cord blood)	1396.3	452.5	192
IGFBP-3 (ng/ml) (~7 years old)	3591.7	1022.5	447
IGFBP-3 (ng/ml) (~ 8 years old)	5612.2	1707.0	410
age at menarche (months)	151.9	14.0	3894

BMI (kg/m ²) (~ 12 months old)	17.8	1.4	1157
BMI (kg/m ²) (~ 25 months old)	16.8	1.4	974
BMI (kg/m ²) (~ 37 months old)	16.5	1.4	986
BMI (kg/m ²) (~ 61 months old)	16.1	1.5	918
BMI (kg/m ²) (~ 7 years old)	16.3	2.1	7457
BMI (kg/m ²) (~ 9 years old)	17.7	2.9	6982
BMI (kg/m ²) (~ 11 years old)	19.1	3.4	6528
BMI (kg/m ²) (~ 13 years old)	19.8	3.5	6157
BMI (kg/m ²) (~ 15 years old)	21.4	3.6	4971
BMI (kg/m ²) (~ 17 years old)	22.8	4.2	4539
BMI (kg/m ²) (~ 11 years old, puberty questionnaire)	18.1	3.2	4104
BMI (kg/m ²) (~ 13 years old, puberty questionnaire)	19.8	3.6	4024
BMI (kg/m ²) (~ 15 years old, puberty questionnaire)	20.6	3.3	3533
BMI (kg/m ²) (~ 17 years old, puberty questionnaire)	21.9	3.5	3318
birth weight (g)	3424.2	543.0	11780

weight (kg) (~ 12 months old)	10.2	1.2	1159
weight (kg) (~ 25 months old)	12.7	1.5	1046
weight (kg) (~ 37 months old)	15.1	1.8	998
weight (kg) (~ 61 months old)	19.6	2.7	923
weight (kg) (~ 7 years old)	25.9	4.6	7458
weight (kg) (~ 9 years old)	34.7	7.4	7043
weight (kg, DEXA) (~ 9 years old)	34.3	7.3	6708
weight (kg) (~ 11 years old)	43.7	10.1	6534
weight (kg) (~ 13 years old)	49.2	10.9	6157
weight (kg) (~ 15 years old)	61.6	11.9	4971
weight (kg) (~ 17 years old)	67.1	13.9	4542
weight (kg) (~ 11 years old, puberty questionnaire)	38.0	8.3	4518
weight (kg) (~ 13 years old, puberty questionnaire)	50.1	10.5	4285
weight (kg) (~ 15 years old, puberty questionnaire)	57.8	11.0	3763

weight (kg) (~ 17 years old, puberty questionnaire)	64.5	12.4	3469
height (cm) (~ 25 months old)	86.9	3.0	974
height (cm) (~ 37 months old)	95.5	3.5	986
height (cm) (~ 61 months old)	110.2	4.3	923
sitting height (kg) (~ 61 months old)	61.6	2.4	923
height (cm) (~ 7 years old)	125.8	5.6	7469
sitting height (cm) (~ 7 years old)	68.0	2.8	7466
height (cm) (~ 9 years old)	139.5	6.3	6986
sitting height (cm) (~ 9 years old)	73.3	3.1	7040
height (cm) (~ 11 years old)	150.8	7.2	6532
sitting height (cm) (~ 11 years old)	78.2	3.8	6535
height (cm) (~ 13 years old)	157.3	7.6	6219
sitting height (cm) (~ 13 years old)	81.3	4.2	6181
height (cm) (~ 15 years old)	169.3	8.3	4981
sitting height (cm) (~ 15 years old)	88.0	4.0	4185

height (cm) (~ 17 years old)	171.2	9.3	4544
height (cm) (~ 11 years old, puberty questionnaire)	144.5	7.2	4540
height (cm) (~ 13 years old, puberty questionnaire)	159.2	8.7	4603
height (cm) (~ 15 years old, puberty questionnaire)	167.4	8.7	3950
height (cm) (~ 17 years old, puberty questionnaire)	171.4	9.7	3593
total bone mineral density (BMD, g/cm ²) (~ 9 years old)	0.9	0.1	6708
total bone mineral density (BMD, g/cm ²) (~ 11 years old)	1.0	0.1	6430
total bone mineral density (BMD, g/cm ²) (~ 13 years old)	1.0	0.1	5552
total bone mineral density (BMD, g/cm ²) (~ 15 years old)	1.1	0.1	4747
total bone mineral density (BMD, g/cm ²) (~ 17 years old)	1.2	0.1	4369
	N	%	
young person (YP) was breast fed as a baby	11005		
always	4988	45.3	
often	925	8.4	
sometimes	334	3.0	
never	4758	43.2	
number of children YP has (~ 22 years old)	3148		

no children	2997	95.2	
1 child	127	4.0	
2-3 children	24	0.8	
frequency YP has a drink containing alcohol (~ 17 years old, questionnaire)	4401		
never	219	5.0	
monthly or less	1594	36.2	
2-4 times a month	1882	42.8	
2-3 times a week	622	14.1	
4 or more times a week	84	1.9	
frequency YP has a drink containing alcohol (~ 17 years old, clinic visit)	3599		
never	72	2.0	
monthly or less	927	25.76	
2-4 times a month	1676	46.57	
2-3 times a week	805	22.37	
4 or more times a week	119	3.31	
frequency respondent has a drink containing alcohol (~ 19 years old)	2972		
never	69	2.32	
monthly or less	499	16.79	
2-4 times a month	1150	38.69	
2-3 times a week	1042	35.06	
4 or more times a week	212	7.13	
over the past year frequency YP had a drink containing alcohol (~21 years old)	3781		
never	88	2.33	
monthly or less	755	19.97	
2-4 times a month	1494	39.51	

2-3 times a week	1213	32.08	
4 or more times a week	231	6.11	
over the past year frequency YP had a drink containing alcohol (~23 years old)	3491		
never	95	2.72	
monthly or less	832	23.83	
2-4 times a month	1377	39.44	
2-3 times a week	1013	29.02	
4 or more times a week	174	4.98	
frequency of physical activity during the past month (8-12 years old)¹	8270		
none	29	0.4	
less than once a week	775	9.4	
1-3 times a week	5411	65.4	
4-6 times a week	1544	18.7	
daily	511	6.2	
frequency of physical activity during the past month (13-18 years old)¹	8294		
none	31	0.4	
less than once a week	1385	16.7	
1-3 times a week	4906	59.2	
4-6 times a week	1474	17.8	
daily	498	6	
frequency of physical activity during the past year (13-18 years old)¹	6542		
none	122	1.86	
less than once a month	555	8.48	
1-3 times a month	1240	18.95	
1-4 times a week	3457	52.84	

5 or more times a week	1168	17.85	
YP was breastfed as a baby	11056		
no	2465	22.3	
yes	8591	77.7	
YP is a biological parent (21-23 years old)	5070		
no	4828	95.2	
yes	242	4.8	
YP ever took oral contraceptives (from 8 to 22 years old)	4994		
no	2299	46.0	
yes	2695	54.0	
YP ever used non-oral hormonal contraceptives (from 17 to 22 years old)			
no	3261	86.6	
yes	505	13.4	
teenager has drunk alcohol (~13 years old)	4294		
no	2319	54.0	
yes	1975	46.0	
YP has ever drunk alcohol (~17 years old)	4682		
no	281	6.0	
yes	4401	94.0	
YP ever smoked (from 14 to 23 years old)	8206		
no	3004	36.6	
yes	5202	63.4	

YP ever had diabetes (from 11 to 23 years old)	5454		
no	5417	99.3	
yes	37	0.7	
YP ever had an X-ray (from 6 months to 15 years old)			
no	9556	87.8	
yes	1329	12.2	

The time of variable measurement is shown in parentheses. Variable descriptions were kept as close as possible to ALSPAC's original formulations.

¹The first instance the question was answered took precedence over subsequent responses.

Supplementary Table 3. Distribution of major mitochondrial DNA haplogroups and subgroups in ALSPAC mothers and children of European descent based on HaploGrep quality scores.

subclade	all (% , N=8080)	quality > 80% (% , N=7842)	quality > 90% (% , N=7078)
A	0.06	0.06	0.07
A4	0.02	0.03	0.03
A5	0.01	0.00	0.00
C4	0.04	0.04	0.04
D4	0.09	0.09	0.10
H	1.18	0.65	0.00
H1	19.34	19.45	18.61
H2	10.00	9.08	7.62

H3	4.74	4.81	4.41
H4	2.05	2.09	2.18
H5	3.02	3.00	2.74
H6	2.86	2.95	2.90
H7	1.18	1.19	1.17
H9	0.02	0.03	0.03
HV	4.85	4.90	4.58
I	0.09	0.09	0.10
I1	0.99	1.02	1.12
I2	0.82	0.84	0.93
I3	0.20	0.20	0.23
I4	0.61	0.62	0.68
I5	0.07	0.08	0.08
J1	8.74	9.00	9.73
J2	2.07	2.13	2.26
K	0.06	0.06	0.06
K1	6.92	7.13	7.90
K2	1.61	1.66	1.82
L1	0.11	0.11	0.13
L2	0.12	0.09	0.08
L3	0.10	0.09	0.10
M	0.02	0.03	0.03
M1	0.10	0.10	0.11
M2	0.01	0.01	0.01
M3	0.14	0.04	0.03
M5	0.02	0.03	0.01
M6	0.04	0.03	0.03
M7	0.02	0.03	0.03
N1	0.22	0.22	0.18

R0	0.07	0.05	0.06
R1	0.04	0.04	0.04
R3	0.02	0.03	0.00
R5	0.01	0.01	0.01
R9	0.01	0.00	0.00
T	0.38	0.34	0.38
T1	1.63	1.68	1.85
T2	8.14	8.39	9.20
U	0.04	0.04	0.00
U1	0.10	0.09	0.10
U2	1.09	1.12	1.23
U3	0.62	0.64	0.61
U4	2.03	2.09	2.32
U5	8.80	9.02	9.45
U6	0.20	0.20	0.23
U7	0.02	0.03	0.03
U8	0.30	0.29	0.30
U9	0.01	0.00	0.00
V	0.24	0.24	0.07
V1	0.20	0.20	0.21
V2	0.09	0.09	0.10
V3	0.15	0.15	0.17
V6	0.02	0.03	0.03
V7	0.01	0.01	0.01
W	0.41	0.42	0.47
W1	0.52	0.54	0.59
W3	0.37	0.38	0.41
W5	0.46	0.47	0.52
X	0.27	0.28	0.30

X1	0.12	0.13	0.14
X2	1.04	1.02	1.03
X3	0.01	0.01	0.01
X4	0.01	0.01	0.01
Total	100	100	100

Supplementary Table 4. Breast cancer risk factors and major mtDNA haplogroups in ALSPAC mothers of European ancestry, unadjusted analysis. A) continuous variables (reference is haplogroup HV) B) categorical variables (N and % are shown).

A - variable	clade	beta	95% CI	p-value	N	model p-value
sex hormone binding globulin (SHBG, nmol/l) in pregnancy	U	-15.18	(-90.55,60.20)	0.691	144	0.701
	J	-41.07	(-126.38,44.23)	0.343	144	
	T	30.26	(-42.23,102.76)	0.411	144	
	K	-40.38	(-128.38,47.62)	0.366	144	
	other European	5.36	(-110.15,120.86)	0.927	144	
testosterone (nmol/l) in pregnancy	U	0.07	(-0.52,0.66)	0.808	143	0.410
	J	0.24	(-0.42,0.91)	0.471	143	
	T	0.37	(-0.20,0.93)	0.202	143	
	K	0.69	(0.00003,1.38)	0.050	143	
	other European	0.33	(-0.57,1.23)	0.471	143	
IGF-I (ng/ml) in pregnancy	U	2.09	(-15.93,20.11)	0.819	350	0.935
	J	4.09	(-14.83,23.01)	0.671	350	
	T	-0.94	(-19.12,17.25)	0.919	350	

	K	0.73	(-22.10,23.56)	0.950	350	
	other European	11.65	(-10.09,33.38)	0.293	350	
IGF-II (ng/ml) in pregnancy	U	33.07	(-44.61,110.76)	0.403	321	0.108
	J	-0.23	(-81.28,80.83)	0.996	321	
	T	-1.99	(-79.68,75.69)	0.960	321	
	K	139.51	(37.54,241.47)	0.007	321	
	other European	65.36	(-29.13,159.84)	0.175	321	
IGFBP-3 (ng/ml) in pregnancy	U	-126.49	(-587.61,334.62)	0.590	350	0.627
	J	-141.29	(-625.34,342.77)	0.566	350	
	T	-366.34	(-831.71,99.02)	0.122	350	
	K	194.05	(-390.03,778.14)	0.514	350	
	other European	-63.84	(-619.95,492.28)	0.822	350	
mother's natural mother's age at birth (years)	U	-0.09	(-0.52,0.35)	0.702	6425	0.839
	J	0.11	(-0.37,0.58)	0.664	6425	
	T	0.21	(-0.27,0.69)	0.383	6425	
	K	0.24	(-0.28,0.76)	0.360	6425	
	other European	0.16	(-0.44,0.76)	0.598	6425	
age of mother at birth (years)	U	-0.01	(-0.35,0.33)	0.944	6812	0.116
	J	0.45	(0.09,0.82)	0.015	6812	
	T	-0.05	(-0.41,0.32)	0.809	6812	
	K	0.34	(-0.06,0.75)	0.093	6812	
	other European	0.02	(-0.44,0.48)	0.935	6812	
age at menarche (years)	U	0.001	(-0.12,0.12)	0.987	6310	0.067
	J	-0.11	(-0.23,0.02)	0.100	6310	
	T	-0.18	(-0.31,-0.06)	0.005	6310	
	K	-0.03	(-0.17,0.11)	0.674	6310	
	other European	-0.08	(-0.24,0.07)	0.297	6310	
age at menopause (years) (child ~ 20 years old)	U	1.04	(0.29,1.79)	0.007	1174	0.136
	J	0.27	(-0.53,1.07)	0.514	1174	

	T	-0.11	(-0.99,0.77)	0.806	1174	
	K	0.19	(-0.65,1.04)	0.657	1174	
	other European	-0.10	(-1.08,0.89)	0.845	1174	
birth weight of mother (g)	U	-22.19	(-76.54,32.16)	0.423	4483	0.767
	J	-41.96	(-101.20,17.29)	0.165	4483	
	T	-10.49	(-69.10,48.13)	0.726	4483	
	K	-27.44	(-90.71,35.84)	0.395	4483	
	other European	-20.70	(-95.45,54.06)	0.587	4483	
BMI (kg/m ²) (~ 12 weeks gestation)	U	0.28	(-0.00,0.56)	0.052	6572	0.016
	J	0.40	(0.09,0.70)	0.012	6572	
	T	0.35	(0.04,0.66)	0.025	6572	
	K	0.30	(-0.03,0.64)	0.075	6572	
	other European	-0.11	(-0.49,0.28)	0.580	6572	
BMI (kg/m ²) (May-Sept 2010)	U	0.16	(-0.48,0.80)	0.625	2417	
	J	0.03	(-0.64,0.70)	0.928	2417	0.888
	T	-0.02	(-0.73,0.68)	0.948	2417	
	K	0.44	(-0.28,1.16)	0.228	2417	
	other European	0.17	(-0.65,0.99)	0.687	2417	
BMI (kg/m ²) (FOM1: 2009-2011)	U	0.15	(-0.40,0.70)	0.590	3476	0.663
	J	0.11	(-0.48,0.69)	0.721	3476	
	T	-0.08	(-0.68,0.53)	0.803	3476	
	K	0.16	(-0.49,0.81)	0.637	3476	
	other European	0.63	(-0.11,1.36)	0.096	3476	
BMI (kg/m ²) (FOM2: 2011-2013)	U	0.53	(-0.15,1.21)	0.128	2160	0.540
	J	-0.11	(-0.82,0.60)	0.760	2160	
	T	-0.26	(-1.02,0.49)	0.493	2160	
	K	-0.20	(-1.00,0.59)	0.615	2160	
	other European	0.16	(-0.73,1.04)	0.727	2160	
pre-pregnancy weight (kg)	U	1.00	(0.20,1.80)	0.014	6638	0.012
	J	1.05	(0.18,1.92)	0.018	6638	

	T	1.22	(0.34,2.09)	0.006	6638	
	K	0.71	(-0.24,1.66)	0.142	6638	
	other European	0.03	(-1.06,1.13)	0.950	6638	
weight (kg) (May-Sept 2010)	U	0.41	(-1.35,2.17)	0.649	2442	0.925
	J	-0.02	(-1.86,1.83)	0.987	2442	
	T	-0.10	(-2.03,1.83)	0.919	2442	
	K	0.71	(-1.28,2.69)	0.485	2442	
	other European	1.04	(-1.22,3.31)	0.365	2442	
weight (kg) (FOM1: 2009-2011)	U	0.43	(-1.07,1.94)	0.572	3476	0.315
	J	0.14	(-1.47,1.75)	0.864	3476	
	T	0.50	(-1.17,2.18)	0.556	3476	
	K	0.36	(-1.43,2.15)	0.696	3476	
	other European	2.49	(0.46,4.52)	0.016	3476	
weight (kg) (FOM2: 2011-2013)	U	1.70	(-0.18,3.58)	0.076	2161	0.444
	J	-0.33	(-2.28,1.63)	0.744	2161	
	T	0.72	(-1.36,2.80)	0.498	2161	
	K	-0.14	(-2.33,2.05)	0.899	2161	
	other European	1.30	(-1.13,3.73)	0.295	2161	
height (cm) (~ 12 weeks gestation)	U	0.33	(-0.15,0.82)	0.181	6940	0.464
	J	0.04	(-0.48,0.57)	0.871	6940	
	T	0.33	(-0.20,0.86)	0.227	6940	
	K	-0.17	(-0.74,0.40)	0.565	6940	
	other European	0.39	(-0.27,1.05)	0.245	6940	
height (cm) (May-Sept 2010)	U	0.26	(-0.49,1.00)	0.500	2829	0.676
	J	0.03	(-0.74,0.81)	0.931	2829	
	T	0.24	(-0.56,1.05)	0.553	2829	
	K	-0.34	(-1.19,0.51)	0.434	2829	
	other European	0.62	(-0.35,1.59)	0.213	2829	
height (cm) (FOM1: 2009-2011)	U	0.15	(-0.47,0.77)	0.633	3476	0.044
	J	-0.08	(-0.74,0.59)	0.823	3476	

	T	0.94	(0.25,1.63)	0.007	3476	
	K	-0.05	(-0.79,0.69)	0.898	3476	
	other European	0.88	(0.05,1.72)	0.038	3476	
sitting height (cm) (FOM1: 2009-2011)	U	0.11	(-0.23,0.44)	0.537	3439	0.076
	J	0.22	(-0.13,0.58)	0.219	3439	
	T	0.54	(0.17,0.91)	0.005	3439	
	K	0.07	(-0.33,0.46)	0.740	3439	
	other European	0.37	(-0.08,0.82)	0.109	3439	
leg length (cm) (FOM1: 2009-2011)	U	0.02	(-0.40,0.44)	0.924	3439	0.097
	J	-0.22	(-0.66,0.23)	0.341	3439	
	T	0.44	(-0.03,0.90)	0.064	3439	
	K	-0.13	(-0.62,0.37)	0.616	3439	
	other European	0.55	(-0.01,1.11)	0.054	3439	
height (cm) (FOM2: 2011-2013)	U	0.42	(-0.37,1.22)	0.297	2160	0.004
	J	-0.06	(-0.89,0.76)	0.879	2160	
	T	1.68	(0.80,2.56)	0.000	2160	
	K	0.53	(-0.40,1.45)	0.264	2160	
	other European	1.00	(-0.03,2.03)	0.057	2160	
sitting height (cm) (FOM2: 2011-2013)	U	0.32	(-0.09,0.74)	0.127	2159	0.004
	J	0.32	(-0.11,0.75)	0.145	2159	
	T	0.91	(0.45,1.37)	0.000	2159	
	K	0.23	(-0.25,0.71)	0.352	2159	
	other European	0.51	(-0.03,1.04)	0.064	2159	
leg length (cm) (FOM2: 2011-2013)	U	0.10	(-0.44,0.63)	0.723	2158	0.034
	J	-0.39	(-0.95,0.17)	0.173	2158	
	T	0.77	(0.17,1.36)	0.011	2158	
	K	0.30	(-0.33,0.92)	0.353	2158	
	other European	0.49	(-0.20,1.19)	0.164	2158	
total body bone mineral density (g/cm ²) (FOM1: 2009-2011)	U	0.002	(-0.01,0.01)	0.663	3379	0.039

	J	-0.01	(-0.02,0.00)	0.159	3379	
	T	0.01	(0.00,0.02)	0.013	3379	
	K	-0.004	(-0.01,0.01)	0.490	3379	
	other European	0.01	(-0.01,0.02)	0.298	3379	
total body bone mineral density (g/cm ²) (FOM2: 2011-2013)	U	0.0002	(-0.01,0.01)	0.972	2118	0.317
	J	-0.01	(-0.02,0.00)	0.238	2118	
	T	0.01	(-0.01,0.02)	0.299	2118	
	K	-0.01	(-0.02,0.00)	0.144	2118	
	other European	0.005	(-0.01,0.02)	0.541	2118	
daily fat intake (g) (~32 weeks gestation)	U	-1.11	(-2.77,0.54)	0.187	6903	0.187
	J	0.24	(-1.55,2.03)	0.793	6903	
	T	-1.03	(-2.84,0.78)	0.263	6903	
	K	-0.22	(-2.18,1.74)	0.829	6903	
	other European	-2.64	(-4.88,-0.39)	0.021	6903	

FOM: Focus On Mothers clinic.

B - variable		HV	U	J	T	K	other European
parity (~18 weeks gestation)							
no children	N	1574	438	348	340	285	215
	%	49.2	13.7	10.9	10.6	8.9	6.7
1 child	N	1277	344	284	286	243	175
	%	49.0	13.2	10.9	11.0	9.3	6.7
2 children	N	495	132	112	109	83	54
	%	50.3	13.4	11.4	11.1	8.4	5.5

3 or more children	N	172	52	56	34	31	18
	%	47.4	14.3	15.4	9.4	8.5	5.0
total	N	7157					
	p-value	0.658					
number of pregnancies after study child (child ~21 months old)							
0	N	2278	638	536	513	430	311
	%	48.4	13.6	11.4	10.9	9.1	6.6
1	N	709	196	153	145	99	91
	%	50.9	14.1	11.0	10.4	7.1	6.5
2 or more	N	80	18	15	20	12	13
	%	50.6	11.4	9.5	12.7	7.6	8.2
total	N	6257					
	p-value	0.481					
alcohol consumption before this pregnancy							
do not drink	N	216	47	47	55	40	28
	%	49.9	10.9	10.9	12.7	9.2	6.5
< once a week	N	1337	347	293	281	251	181
	%	49.7	12.9	10.9	10.5	9.3	6.7
> once a week	N	1583	466	345	340	287	196
	%	49.2	14.5	10.7	10.6	8.9	6.1
1+/day	N	414	120	116	96	68	60
	%	47.4	13.7	13.3	11.0	7.8	6.9
total	N	7214					
	p-value	0.439					
alcohol consumption (child ~ 8 months old)							
do not drink	N	338	86	74	86	60	55

	%	48.4	12.3	10.6	12.3	8.6	7.9
< once a week	N	1520	420	348	326	281	195
	%	49.2	13.6	11.3	10.6	9.1	6.3
> once a week	N	1255	359	281	265	207	171
	%	49.5	14.1	11.1	10.4	8.2	6.7
1+/day	N	128	33	30	40	21	12
	%	48.5	12.5	11.4	15.2	8.0	4.6
total	N	6591					
	p-value	0.527					
quantity of alcohol mother drinks (child ~21 months old)							
do not drink	N	397	94	90	85	69	50
	%	50.6	12.0	11.5	10.8	8.8	6.4
< once a week	N	1406	416	338	308	255	192
	%	48.2	14.3	11.6	10.6	8.8	6.6
> once a week	N	958	263	216	212	166	136
	%	49.1	13.5	11.1	10.9	8.5	7.0
1+/day	N	289	74	58	68	48	37
	%	50.4	12.9	10.1	11.9	8.4	6.5
total	N	6225					
	p-value	0.978					
quantity of alcohol mother drinks (child ~33 months old)							
do not drink	N	298	71	63	73	56	44
	%	49.3	11.7	10.4	12.1	9.3	7.3
< once a week	N	1265	384	317	289	244	168
	%	47.4	14.4	11.9	10.8	9.2	6.3
> once a week	N	1009	266	223	216	174	136

	%	49.9	13.1	11.0	10.7	8.6	6.7
1+/day	N	348	89	64	74	49	40
	%	52.4	13.4	9.6	11.1	7.4	6.0
total	N	5960					
	p-value	0.569					
quantity of alcohol mother drinks (child ~5 years old)							
do not drink	N	198	47	38	45	36	31
	%	50.1	11.9	9.6	11.4	9.1	7.9
< once a week	N	1053	272	243	246	205	134
	%	48.9	12.6	11.3	11.4	9.5	6.2
> once a week	N	1017	300	261	225	177	154
	%	47.7	14.1	12.2	10.5	8.3	7.2
1+/day	N	503	142	98	121	72	60
	%	50.5	14.3	9.8	12.2	7.2	6.0
total	N	5678					
	p-value	0.259					
years taking contraceptive pill (child ~ 8 years old)							
< 1 year	N	143	46	31	29	25	19
	%	5.8	6.8	5.4	5.1	5.8	5.7
1-2 years	N	207	51	50	66	41	26
	%	8.4	7.5	8.8	11.5	9.6	7.8
3-4 years	N	396	126	115	79	74	39
	%	16.1	18.6	20.2	13.8	17.3	11.7
5+ years	N	1719	454	374	398	289	249
	%	69.7	67.1	65.6	69.6	67.4	74.8
total	N	5046					
	p-value	0.033					

years taking contraceptive pill (child ~ 11 years old)							
< 1 year	N	132	41	28	33	26	17
	%	5.5	6.1	5.0	6.3	6.4	5.4
1-2 years	N	188	54	57	42	44	14
	%	7.8	8.1	10.1	8.0	10.8	4.4
3-4 years	N	400	117	87	89	64	48
	%	16.6	17.5	15.4	16.9	15.7	15.1
5+ years	N	1685	458	394	364	274	239
	%	70.1	68.4	69.6	68.9	67.2	75.2
total	N	4895					
	p-value	0.324					
frequency of alcohol consumption (May-Sept 2010)							
do not drink	N	137	33	26	31	24	18
	%	50.9	12.3	9.7	11.5	8.9	6.7
< once a week	N	507	130	118	117	102	60
	%	49.0	12.6	11.4	11.3	9.9	5.8
> once a week	N	784	228	203	178	148	121
	%	47.2	13.7	12.2	10.7	8.9	7.3
total	N	2965					
	p-value	0.800					
duration of breastfeeding last baby (~ 18 weeks gestation)							
not at all	N	502	141	123	108	88	57
	%	49.3	13.8	12.1	10.6	8.6	5.6
< 1 month	N	244	84	55	62	50	24
	%	47.0	16.2	10.6	12.0	9.6	4.6

1-3 months	N	376	85	90	85	76	49
	%	49.4	11.2	11.8	11.2	10.0	6.4
> 3 months	N	855	234	189	187	154	118
	%	49.2	13.5	10.9	10.8	8.9	6.8
total	N	4036					
	p-value	0.586					
average time spent exercising in past year (from ~18 weeks gestation to 2010)							
never	N	614	160	158	121	103	73
	%	50.0	13.0	12.9	9.9	8.4	5.9
≤ once a month	N	1694	463	377	378	341	241
	%	48.5	13.3	10.8	10.8	9.8	6.9
≤ once a week	N	658	210	150	148	88	81
	%	49.3	15.7	11.2	11.1	6.6	6.1
2-3 times a week	N	297	75	59	73	44	40
	%	50.5	12.8	10.0	12.4	7.5	6.8
4-5 times a week	N	97	25	22	17	8	8
	%	54.8	14.1	12.4	9.6	4.5	4.5
most days	N	67	12	19	11	15	7
	%	51.2	9.2	14.5	8.4	11.5	5.3
total	N	6954					
	p-value	0.037					
number of hours of activity per week (from ~18 weeks gestation to 2010)							
none	N	570	154	130	128	109	80
	%	48.7	13.2	11.1	10.9	9.3	6.8

≤ 3 hours	N	1273	377	302	278	243	165
	%	48.3	14.3	11.5	10.5	9.2	6.3
> 3 hours	N	1656	433	352	355	289	212
	%	50.2	13.1	10.7	10.8	8.8	6.4
total	N	7106					
	p-value	0.912					
number of hours of vigorous activity per week (from ~18 weeks gestation to 2010)							
none	N	2409	631	552	517	437	320
	%	49.5	13.0	11.3	10.6	9.0	6.6
< 2 hours	N	650	201	139	159	130	89
	%	47.5	14.7	10.2	11.6	9.5	6.5
2-6 hours	N	348	105	73	80	61	45
	%	48.9	14.8	10.3	11.2	8.6	6.3
>6 hours	N	142	45	46	21	26	16
	%	48.0	15.2	15.5	7.1	8.8	5.4
total	N	7242					
	p-value	0.271					
mother has reached menopause (child ~ 20 years old)							
no	N	876	240	206	207	149	114
	%	48.88	13.39	11.5	11.55	8.31	6.36
yes	N	508	144	119	98	107	72
	%	48.47	13.74	11.35	9.35	10.21	6.87
total	N	2840					
	p-value	0.309					

mother's natural mother had breast cancer (~ 12 weeks gestation)							
no	N	3340	936	756	730	610	441
	%	49.02	13.74	11.1	10.71	8.95	6.47
yes	N	126	21	26	27	29	16
	%	51.43	8.57	10.61	11.02	11.84	6.53
total	N	7058					
	p-value	0.208					
mother's natural mother had breast cancer (child ~ 8 years old)							
no	N	2349	649	534	544	419	333
	%	48.65	13.44	11.06	11.27	8.68	6.9
yes	N	146	33	39	28	31	16
	%	49.83	11.26	13.31	9.56	10.58	5.46
total	N	5121					
	p-value	0.415					
mother ever had a mammogram (FOM1: 2009-2011)							
no	N	1259	346	283	281	220	177
	%	49.06	13.48	11.03	10.95	8.57	6.9
yes	N	432	135	123	86	92	57
	%	46.7	14.59	13.3	9.3	9.95	6.16
total	N	3491					
	p-value	0.148					
breastfed last baby (~ 18 weeks gestation)							
no	N	502	141	123	108	88	57
	%	49.26	13.84	12.07	10.6	8.64	5.59

yes	N	1475	403	335	334	280	191
	%	48.87	13.35	11.1	11.07	9.28	6.33
total	N	4037					
	p-value	0.855					
mother ever had diabetes (from ~12 weeks gestation to 2010)							
no	N	3561	989	810	767	640	472
	%	49.19	13.66	11.19	10.6	8.84	6.52
yes	N	109	27	29	27	20	15
	%	48.02	11.89	12.78	11.89	8.81	6.61
total	N	7466					
	p-value	0.923					
mother ever had any cancer (since child was ~6 years old to 2010)							
no	N	3018	840	705	673	521	395
	%	49.06	13.65	11.46	10.94	8.47	6.42
yes	N	126	19	26	20	26	23
	%	52.5	7.92	10.83	8.33	10.83	9.58
total	N	6392					
	p-value	0.025					
mother ever had an hysterectomy and/or oophorectomy (since child was ~8 years old to 2010)							
no	N	2525	699	580	568	457	342
	%	48.83	13.52	11.22	10.98	8.84	6.61
yes	N	149	34	34	40	23	28
	%	48.38	11.04	11.04	12.99	7.47	9.09
total	N	5479					

	p-value	0.340					
mother had ever done nightshift work (from ~18 weeks gestation to when child was ~10 years old)							
no	N	1916	525	422	420	356	251
	%	49.25	13.5	10.85	10.8	9.15	6.45
yes	N	1741	484	407	369	308	232
	%	49.17	13.67	11.49	10.42	8.7	6.55
total	N	7431					
	p-value	0.920					
mother ever took oral contraceptives (from ~12 weeks gestation to 2013)							
no	N	167	43	35	36	36	25
	%	48.83	12.57	10.23	10.53	10.53	7.31
yes	N	3575	986	820	770	632	470
	%	49.29	13.59	11.31	10.62	8.71	6.48
total	N	7595					
	p-value	0.826					
mother ever used non-oral hormonal contraceptives (since child was ~21 months old to 2013)							
no	N	2480	700	561	526	453	334
	%	49.07	13.85	11.1	10.41	8.96	6.61
yes	N	890	239	205	202	153	114
	%	49.36	13.26	11.37	11.2	8.49	6.32
total	N	6857					
	p-value	0.882					
mother ever had hormone replacement therapy							

(since child was ~9 years old to 2010)							
no	N	1816	503	433	408	323	244
	%	48.73	13.5	11.62	10.95	8.67	6.55
yes	N	252	67	63	51	51	35
	%	48.55	12.91	12.14	9.83	9.83	6.74
total	N	4246					
	p-value	0.916					
mother ever taken aspirin (from ~18 weeks gestation to 2010)							
no	N	2195	594	494	486	433	281
	%	48.96	13.25	11.02	10.84	9.66	6.27
yes	N	1545	438	362	320	242	209
	%	49.58	14.06	11.62	10.27	7.77	6.71
total	N	7599					
	p-value	0.072					
mother ever smoked (from ~18 weeks gestation to 2010)							
no	N	1756	484	398	394	328	248
	%	48.67	13.41	11.03	10.92	9.09	6.87
yes	N	2000	553	459	413	349	247
	%	49.74	13.75	11.42	10.27	8.68	6.14
	N	7629					
	p-value	0.618					
mother ever had an x-ray (from ~12 weeks gestation to when child was ~33 months old)							
no	N	2462	659	573	547	450	342

	%	48.92	13.09	11.38	10.87	8.94	6.8
yes	N	1057	314	222	223	195	124
	%	49.51	14.71	10.4	10.44	9.13	5.81
total	N	7168					
	p-value	0.231					
mother exercised at least once a week (from ~18 weeks gestation to 2010)							
no	N	448	120	105	101	103	59
	%	47.86	12.82	11.22	10.79	11	6.3
yes	N	3159	877	710	683	561	418
	%	49.3	13.69	11.08	10.66	8.75	6.52
total	N	7344					
	p-value	0.363					

Supplementary Table 5. Breast cancer risk factors and major mtDNA haplogroups in ALSPAC children of European ancestry, unadjusted analysis. A) continuous variables (reference is haplogroup HV) B) categorical variables (N and % are shown).

A - variable	clade	beta	95% CI	p-value	N	model p-value
sex hormone binding globulin (SHBG, nmol/l) (~ 8 years old)	U	-2.12	(-9.41,5.18)	0.569	724	0.819
	J	1.10	(-6.32,8.52)	0.771	724	
	T	-4.85	(-12.31,2.6)	0.202	724	
	K	-1.45	(-9.49,6.6)	0.725	724	
	other European	-2.08	(-11.48,7.31)	0.663	724	
sex hormone binding globulin (SHBG, nmol/l) (~ 15 years old)	U	-0.99	(-6.79,4.81)	0.739	1383	0.531
	J	-4.15	(-10.29,1.99)	0.185	1383	
	T	-2.58	(-8.61,3.45)	0.401	1383	
	K	2.33	(-4.4,9.07)	0.497	1383	
	other European	-4.51	(-12.21,3.19)	0.251	1383	
testosterone (nmol/l) (~ 15 years old)	U	0.01	(-0.06,0.08)	0.782	1424	0.477
	J	-0.06	(-0.14,0.02)	0.124	1424	
	T	-0.01	(-0.08,0.07)	0.838	1424	
	K	0.03	(-0.05,0.12)	0.474	1424	
	other European	-0.05	(-0.15,0.05)	0.291	1424	
androstenedione (ng/dl) (~ 8 years old)	U	2.95	(-3.96,9.87)	0.402	668	0.806
	J	0.03	(-7.01,7.08)	0.992	668	
	T	3.39	(-3.76,10.55)	0.352	668	
	K	-1.43	(-8.95,6.09)	0.709	668	
	other European	-2.49	(-11.59,6.62)	0.592	668	
dehydroepiandrosterone-sulfate (DHEAS, ug/dl) (~ 8 years old) ¹	U	0.04	(-0.15,0.24)	0.674	670	0.056
	J	0.04	(-0.16,0.24)	0.721	670	
	T	0.31	(0.11,0.51)	0.002	670	

	K	-0.03	(-0.25,0.18)	0.761	670	
	other European	-0.06	(-0.32,0.20)	0.653	670	
IGF-I (ng/ml) (cord blood)	U	6.14	(-3.73,16.02)	0.222	469	0.121
	J	11.70	(-0.38,23.78)	0.058	469	
	T	-3.06	(-14.19,8.07)	0.589	469	
	K	6.02	(-6.41,18.46)	0.341	469	
	other European	13.56	(0.13,26.99)	0.048	469	
IGF-I (~ 7 years old)	U	7.81	(-10.01,25.63)	0.389	359	0.465
	J	-14.55	(-34.55,5.44)	0.153	359	
	T	-3.84	(-22.08,14.4)	0.679	359	
	K	-3.20	(-22.99,16.59)	0.751	359	
	other European	10.52	(-14.19,35.23)	0.403	359	
IGF-I (ng/ml) (~ 8 years old)	U	-7.53	(-23.12,8.05)	0.342	371	0.259
	J	10.27	(-5.83,26.38)	0.210	371	
	T	-14.70	(-31.4,2)	0.084	371	
	K	-0.12	(-18.34,18.09)	0.989	371	
	other European	-2.37	(-23.53,18.79)	0.826	371	
IGF-II (ng/ml) (cord blood)	U	-6.42	(-27.27,14.44)	0.546	470	0.058
	J	-21.14	(-46.66,4.37)	0.104	470	
	T	19.13	(-4.38,42.64)	0.110	470	
	K	-26.51	(-52.77,-0.26)	0.048	470	
	other European	-5.15	(-33.52,23.22)	0.721	470	
IGF-II (ng/ml) (~ 7 years old)	U	-22.46	(-80.5,35.58)	0.446	158	0.477
	J	-16.23	(-67.7,35.23)	0.534	158	
	T	-61.41	(-119.45,-3.37)	0.038	158	
	K	-14.88	(-79.83,50.06)	0.651	158	
	other European	-13.58	(-83.39,56.23)	0.701	158	
IGFBP-3 (ng/ml) (cord blood)	U	-127.04	(-385.71,131.63)	0.333	142	0.548
	J	-197.71	(-521.07,125.66)	0.229	142	
	T	75.48	(-169.17,320.12)	0.543	142	

	K	-158.62	(-450.85,133.62)	0.285	142	
	other European	-40.43	(-363.8,282.93)	0.805	142	
IGFBP-3 (ng/ml) (~ 8 years old)	U	49.01	(-502.65,600.68)	0.861	359	0.800
	J	-51.71	(-670.81,567.39)	0.870	359	
	T	-19.61	(-584.19,544.98)	0.946	359	
	K	367.44	(-245.21,980.09)	0.239	359	
	other European	-276.97	(-1042.01,488.06)	0.477	359	
IGFBP-3 (ng/ml) (~7 years old)	U	-104.06	(-433.92,225.81)	0.535	371	0.238
	J	59.20	(-281.64,400.04)	0.733	371	
	T	-388.49	(-741.94,-35.03)	0.031	371	
	K	-199.40	(-584.94,186.14)	0.310	371	
	other European	-278.47	(-726.24,169.3)	0.222	371	
age at menarche (months)	U	0.87	(-0.67,2.41)	0.267	2922	0.446
	J	-0.85	(-2.53,0.82)	0.319	2922	
	T	0.15	(-1.52,1.81)	0.864	2922	
	K	-1.25	(-3.17,0.66)	0.200	2922	
	other European	-0.40	(-2.53,1.73)	0.710	2922	
BMI (kg/m ²) (~ 12 months old)	U	0.12	(-0.16,0.4)	0.393	829	0.009
	J	-0.22	(-0.56,0.11)	0.193	829	
	T	0.18	(-0.11,0.47)	0.231	829	
	K	-0.36	(-0.67,-0.04)	0.027	829	
	other European	0.40	(0.02,0.77)	0.040	829	
BMI (kg/m ²) (~ 25 months old)	U	0.13	(-0.18,0.43)	0.409	725	0.282
	J	-0.21	(-0.58,0.15)	0.249	725	
	T	0.17	(-0.15,0.48)	0.300	725	
	K	-0.04	(-0.39,0.32)	0.833	725	
	other European	0.34	(-0.07,0.74)	0.106	725	
BMI (kg/m ²) (~ 37 months old)	U	0.15	(-0.15,0.44)	0.337	742	0.042
	J	-0.28	(-0.64,0.07)	0.113	742	
	T	0.10	(-0.21,0.41)	0.527	742	

	K	0.01	(-0.33,0.35)	0.949	742	
	other European	0.52	(0.13,0.92)	0.010	742	
BMI (kg/m ²) (~ 61 months old)	U	0.13	(-0.21,0.48)	0.453	714	0.075
	J	-0.19	(-0.59,0.21)	0.358	714	
	T	0.23	(-0.11,0.58)	0.184	714	
	K	-0.08	(-0.46,0.31)	0.695	714	
	other European	0.57	(0.12,1.03)	0.013	714	
BMI (kg/m ²) (~ 7 years old)	U	-0.02	(-0.18,0.14)	0.808	5745	0.982
	J	-0.04	(-0.21,0.14)	0.657	5745	
	T	-0.02	(-0.2,0.16)	0.827	5745	
	K	0.04	(-0.15,0.23)	0.699	5745	
	other European	0.04	(-0.17,0.26)	0.691	5745	
BMI (kg/m ²) (~ 9 years old)	U	0.03	(-0.2,0.26)	0.798	5493	0.945
	J	0.00	(-0.25,0.25)	0.990	5493	
	T	-0.11	(-0.36,0.14)	0.391	5493	
	K	-0.08	(-0.35,0.19)	0.573	5493	
	other European	-0.03	(-0.34,0.28)	0.840	5493	
BMI (kg/m ²) (~ 11 years old)	U	0.04	(-0.24,0.32)	0.783	5116	0.898
	J	-0.03	(-0.34,0.27)	0.826	5116	
	T	-0.02	(-0.33,0.29)	0.913	5116	
	K	-0.11	(-0.45,0.22)	0.507	5116	
	other European	0.18	(-0.21,0.56)	0.365	5116	
BMI (kg/m ²) (~ 13 years old)	U	0.10	(-0.2,0.4)	0.515	4837	0.429
	J	-0.13	(-0.46,0.2)	0.430	4837	
	T	0.01	(-0.32,0.34)	0.954	4837	
	K	-0.32	(-0.68,0.04)	0.083	4837	
	other European	0.09	(-0.31,0.5)	0.657	4837	
BMI (kg/m ²) (~ 15 years old)	U	-0.02	(-0.36,0.32)	0.898	3943	0.279
	J	0.09	(-0.27,0.46)	0.612	3943	
	T	-0.20	(-0.56,0.17)	0.290	3943	

	K	-0.15	(-0.55,0.24)	0.440	3943	
	other European	0.42	(-0.03,0.87)	0.066	3943	
BMI (kg/m ²) (~ 17 years old)	U	-0.11	(-0.52,0.3)	0.602	3538	0.932
	J	0.09	(-0.35,0.54)	0.679	3538	
	T	-0.07	(-0.51,0.37)	0.755	3538	
	K	-0.18	(-0.66,0.29)	0.450	3538	
	other European	0.08	(-0.48,0.65)	0.773	3538	
BMI (kg/m ²) (~ 11 years old, puberty questionnaire)	U	0.08	(-0.26,0.43)	0.644	3060	0.709
	J	-0.01	(-0.37,0.35)	0.977	3060	
BMI (kg/m ²) (~ 13 years old, puberty questionnaire)	T	-0.02	(-0.39,0.35)	0.914	3060	
	K	0.25	(-0.17,0.67)	0.243	3060	
	other European	-0.23	(-0.68,0.22)	0.322	3060	
	U	-0.09	(-0.47,0.29)	0.639	3064	0.271
	J	-0.32	(-0.73,0.09)	0.122	3064	
	T	-0.28	(-0.7,0.13)	0.181	3064	
	K	-0.47	(-0.93,-0.02)	0.042	3064	
	other European	-0.09	(-0.61,0.43)	0.730	3064	
BMI (kg/m ²) (~ 15 years old, puberty questionnaire)	U	-0.05	(-0.43,0.32)	0.785	2656	0.470
	J	0.17	(-0.24,0.57)	0.416	2656	
	T	-0.11	(-0.53,0.3)	0.586	2656	
	K	-0.26	(-0.72,0.19)	0.256	2656	
	other European	0.32	(-0.18,0.83)	0.211	2656	
BMI (kg/m ²) (~ 17 years old, puberty questionnaire)	U	-0.17	(-0.59,0.24)	0.407	2508	0.281
	J	0.30	(-0.14,0.74)	0.176	2508	
	T	0.16	(-0.29,0.61)	0.480	2508	
	K	-0.05	(-0.55,0.44)	0.833	2508	
	other European	0.47	(-0.09,1.02)	0.097	2508	

birth weight (g)	U	10.62	(-26.66,47.9)	0.577	7373	0.521
	J	-21.75	(-62.1,18.6)	0.291	7373	
	T	-14.61	(-55.92,26.7)	0.488	7373	
	K	3.27	(-40.8,47.34)	0.884	7373	
	other European	-37.72	(-88.66,13.23)	0.147	7373	
weight (kg) (~ 12 months old)	U	0.10	(-0.14,0.34)	0.401	831	0.175
	J	-0.13	(-0.42,0.15)	0.364	831	
	T	0.16	(-0.09,0.41)	0.202	831	
	K	-0.22	(-0.49,0.05)	0.112	831	
	other European	0.13	(-0.19,0.45)	0.421	831	
weight (kg) (~ 25 months old)	U	0.11	(-0.21,0.43)	0.493	773	0.428
	J	-0.13	(-0.51,0.25)	0.492	773	
	T	0.26	(-0.06,0.58)	0.116	773	
	K	-0.13	(-0.5,0.23)	0.478	773	
	other European	0.13	(-0.3,0.55)	0.560	773	
weight (kg) (~ 37 months old)	U	0.22	(-0.17,0.61)	0.271	751	0.592
	J	-0.14	(-0.6,0.32)	0.555	751	
	T	0.18	(-0.23,0.58)	0.395	751	
	K	-0.03	(-0.48,0.42)	0.900	751	
	other European	0.32	(-0.21,0.84)	0.236	751	
weight (kg) (~ 61 months old)	U	0.37	(-0.26,1.01)	0.249	717	0.533
	J	-0.04	(-0.77,0.7)	0.924	717	
	T	0.47	(-0.16,1.11)	0.141	717	
	K	-0.14	(-0.84,0.57)	0.702	717	
	other European	0.34	(-0.49,1.17)	0.419	717	
weight (kg) (~ 7 years old)	U	-0.10	(-0.46,0.27)	0.606	5746	0.980
	J	0.07	(-0.33,0.46)	0.743	5746	
	T	-0.11	(-0.51,0.29)	0.588	5746	
	K	-0.02	(-0.45,0.42)	0.937	5746	
	other European	-0.05	(-0.54,0.44)	0.842	5746	

weight (kg) (~ 9 years old)	U	0.02	(-0.58,0.62)	0.945	5544	0.837
	J	0.22	(-0.42,0.85)	0.507	5544	
	T	-0.05	(-0.7,0.59)	0.868	5544	
	K	-0.23	(-0.93,0.48)	0.529	5544	
	other European	-0.41	(-1.21,0.4)	0.324	5544	
weight (kg, DEXA) (~ 9 years old)	U	0.07	(-0.52,0.67)	0.806	5290	0.718
	J	0.31	(-0.33,0.95)	0.345	5290	
	T	-0.08	(-0.73,0.56)	0.799	5290	
	K	-0.26	(-0.97,0.44)	0.464	5290	
	other European	-0.39	(-1.2,0.42)	0.344	5290	
weight (kg) (~ 11 years old)	U	0.16	(-0.67,1)	0.697	5122	0.993
	J	0.10	(-0.8,1.01)	0.824	5122	
	T	-0.02	(-0.93,0.89)	0.966	5122	
	K	-0.23	(-1.22,0.77)	0.654	5122	
	other European	0.01	(-1.12,1.14)	0.982	5122	
weight (kg) (~ 13 years old)	U	0.35	(-0.57,1.27)	0.456	4837	0.691
	J	0.08	(-0.93,1.1)	0.873	4837	
	T	0.41	(-0.6,1.42)	0.428	4837	
	K	-0.66	(-1.78,0.45)	0.242	4837	
	other European	-0.02	(-1.28,1.23)	0.970	4837	
weight (kg) (~ 15 years old)	U	0.14	(-1,1.28)	0.808	3943	0.157
	J	0.95	(-0.26,2.16)	0.124	3943	
	T	-0.51	(-1.73,0.72)	0.420	3943	
	K	0.25	(-1.06,1.57)	0.704	3943	
	other European	1.64	(0.14,3.13)	0.032	3943	
weight (kg) (~ 17 years old)	U	-0.08	(-1.47,1.3)	0.906	3540	0.850
	J	0.57	(-0.93,2.07)	0.456	3540	
	T	-0.21	(-1.7,1.28)	0.783	3540	
	K	0.12	(-1.49,1.73)	0.883	3540	
	other European	1.07	(-0.82,2.97)	0.267	3540	

weight (kg) (~ 11 years old, puberty questionnaire)	U	0.33	(-0.54,1.19)	0.459	3356	0.733
	J	0.30	(-0.61,1.2)	0.521	3356	
	T	-0.05	(-0.97,0.88)	0.922	3356	
	K	0.34	(-0.7,1.38)	0.524	3356	
	other European	-0.62	(-1.78,0.53)	0.290	3356	0.866
weight (kg) (~ 13 years old, puberty questionnaire)	U	0.69	(-0.41,1.79)	0.219	3238	
	J	-0.07	(-1.24,1.11)	0.913	3238	
	T	0.07	(-1.12,1.26)	0.911	3238	
	K	-0.19	(-1.51,1.13)	0.776	3238	
	other European	0.13	(-1.36,1.62)	0.869	3238	
weight (kg) (~ 15 years old, puberty questionnaire)	U	-0.31	(-1.53,0.91)	0.621	2824	0.604
	J	0.59	(-0.73,1.9)	0.384	2824	
	T	-0.14	(-1.49,1.21)	0.835	2824	
	K	0.26	(-1.23,1.74)	0.736	2824	
	other European	1.26	(-0.4,2.92)	0.138	2824	
weight (kg) (~ 17 years old, puberty questionnaire)	U	-0.60	(-2.07,0.87)	0.426	2617	0.158
	J	1.44	(-0.11,2.98)	0.069	2617	
	T	-0.01	(-1.61,1.59)	0.993	2617	
	K	0.52	(-1.24,2.28)	0.562	2617	
	other European	1.82	(-0.14,3.77)	0.068	2617	
height (cm) (~ 25 months old)	U	-0.15	(-0.83,0.53)	0.664	725	0.425
	J	0.04	(-0.78,0.85)	0.931	725	
	T	0.24	(-0.46,0.94)	0.507	725	
	K	-0.44	(-1.24,0.35)	0.275	725	
	other European	-0.78	(-1.69,0.13)	0.094	725	
height (cm) (~ 37 months old)	U	0.25	(-0.53,1.04)	0.523	742	0.805
	J	0.26	(-0.67,1.19)	0.583	742	

	T	0.14	(-0.67,0.95)	0.730	742	
	K	-0.20	(-1.09,0.69)	0.658	742	
	other European	-0.51	(-1.55,0.53)	0.336	742	
height (cm) (~ 61 months old)	U	0.58	(-0.43,1.59)	0.261	715	0.313
	J	0.61	(-0.56,1.77)	0.307	715	
	T	0.49	(-0.52,1.49)	0.346	715	
	K	-0.16	(-1.28,0.96)	0.777	715	
	other European	-0.95	(-2.27,0.37)	0.157	715	
sitting height (kg) (~ 61 months old)	U	0.23	(-0.33,0.79)	0.416	717	0.858
	J	0.09	(-0.56,0.73)	0.787	717	
	T	0.19	(-0.37,0.75)	0.500	717	
	K	0.03	(-0.59,0.65)	0.921	717	
	other European	-0.29	(-1.02,0.45)	0.443	717	
height (cm) (~ 7 years old)	U	-0.11	(-0.55,0.33)	0.622	5750	0.568
	J	0.33	(-0.14,0.81)	0.171	5750	
	T	-0.17	(-0.66,0.31)	0.478	5750	
	K	-0.16	(-0.69,0.36)	0.545	5750	
	other European	-0.16	(-0.75,0.44)	0.606	5750	
sitting height (cm) (~ 7 years old)	U	-0.04	(-0.26,0.19)	0.746	5751	0.898
	J	0.10	(-0.14,0.34)	0.421	5751	
	T	-0.02	(-0.27,0.22)	0.853	5751	
	K	-0.07	(-0.34,0.19)	0.592	5751	
	other European	-0.09	(-0.39,0.21)	0.568	5751	
height (cm) (~ 9 years old)	U	-0.05	(-0.57,0.46)	0.841	5495	0.350
	J	0.46	(-0.08,1.01)	0.097	5495	
	T	0.19	(-0.36,0.75)	0.494	5495	
	K	-0.04	(-0.65,0.56)	0.887	5495	
	other European	-0.43	(-1.12,0.26)	0.220	5495	
sitting height (cm) (~ 9 years old)	U	0.06	(-0.19,0.31)	0.650	5540	0.319
	J	0.27	(0,0.54)	0.053	5540	

	T	0.13	(-0.14,0.41)	0.335	5540	
	K	-0.04	(-0.34,0.25)	0.771	5540	
	other European	-0.14	(-0.48,0.21)	0.436	5540	
height (cm) (~ 11 years old)	U	0.07	(-0.53,0.67)	0.826	5118	0.623
	J	0.34	(-0.32,1)	0.311	5118	
	T	0.04	(-0.63,0.7)	0.917	5118	
	K	0.05	(-0.67,0.77)	0.895	5118	
	other European	-0.58	(-1.4,0.24)	0.167	5118	
sitting height (cm) (~ 11 years old)	U	-0.02	(-0.34,0.29)	0.879	5122	0.802
	J	0.11	(-0.23,0.45)	0.519	5122	
	T	0.04	(-0.3,0.39)	0.806	5122	
	K	-0.06	(-0.43,0.32)	0.767	5122	
	other European	-0.26	(-0.69,0.17)	0.231	5122	
height (cm) (~ 13 years old)	U	0.09	(-0.56,0.74)	0.778	4881	0.307
	J	0.64	(-0.07,1.35)	0.078	4881	
	T	0.56	(-0.15,1.27)	0.122	4881	
	K	0.14	(-0.64,0.93)	0.718	4881	
	other European	-0.32	(-1.2,0.56)	0.481	4881	
sitting height (cm) (~ 13 years old)	U	0.03	(-0.33,0.38)	0.886	4853	0.286
	J	0.28	(-0.11,0.67)	0.154	4853	
	T	0.30	(-0.09,0.69)	0.132	4853	
	K	0.06	(-0.37,0.49)	0.785	4853	
	other European	-0.29	(-0.78,0.19)	0.231	4853	
height (cm) (~ 15 years old)	U	0.28	(-0.52,1.09)	0.489	3951	0.151
	J	0.95	(0.09,1.81)	0.030	3951	
	T	0.09	(-0.78,0.96)	0.835	3951	
	K	0.95	(0.02,1.88)	0.046	3951	
	other European	0.63	(-0.43,1.69)	0.246	3951	
sitting height (cm) (~ 15 years old)	U	-0.12	(-0.54,0.31)	0.585	3343	0.056
	J	0.62	(0.17,1.08)	0.007	3343	

	T	0.17	(-0.29,0.63)	0.476	3343	
	K	0.44	(-0.06,0.93)	0.084	3343	
	other European	0.06	(-0.52,0.63)	0.848	3343	
height (cm) (~ 17 years old)	U	0.29	(-0.65,1.23)	0.548	3541	0.432
	J	0.44	(-0.58,1.46)	0.402	3541	
	T	-0.04	(-1.05,0.98)	0.943	3541	
	K	0.82	(-0.28,1.91)	0.143	3541	
	other European	1.09	(-0.19,2.38)	0.096	3541	
height (cm) (~ 11 years old, puberty questionnaire)	U	0.18	(-0.57,0.93)	0.636	3377	0.846
	J	0.29	(-0.49,1.08)	0.464	3377	
	T	0.30	(-0.51,1.1)	0.469	3377	
	K	0.16	(-0.74,1.07)	0.724	3377	
	other European	-0.39	(-1.38,0.6)	0.437	3377	
height (cm) (~ 13 years old, puberty questionnaire)	U	1.11	(0.23,1.99)	0.013	3476	0.024
	J	1.22	(0.28,2.16)	0.011	3476	
	T	1.03	(0.08,1.98)	0.033	3476	
	K	0.74	(-0.32,1.79)	0.170	3476	
	other European	0.19	(-0.99,1.37)	0.754	3476	
height (cm) (~ 15 years old, puberty questionnaire)	U	0.20	(-0.76,1.16)	0.679	2964	0.344
	J	0.46	(-0.57,1.5)	0.379	2964	
	T	0.17	(-0.88,1.22)	0.755	2964	
	K	1.38	(0.19,2.57)	0.023	2964	
	other European	-0.04	(-1.35,1.27)	0.950	2964	
height (cm) (~ 17 years old, puberty questionnaire)	U	-0.56	(-1.69,0.58)	0.336	2716	0.426
	J	0.42	(-0.79,1.63)	0.498	2716	
	T	-0.74	(-1.97,0.49)	0.239	2716	
	K	0.49	(-0.87,1.85)	0.480	2716	

	other European	0.70	(-0.83,2.23)	0.367	2716	
total bone mineral density (BMD, g/cm2) (~ 9 years old)	U	-0.0020	(-0.0062,0.0023)	0.362	5290	0.681
	J	-0.0001	(-0.0046,0.0044)	0.961	5290	
	T	0.0028	(-0.0017,0.0074)	0.223	5290	
	K	0.0012	(-0.0037,0.0062)	0.630	5290	
	other European	-0.0002	(-0.0059,0.0055)	0.947	5290	
total bone mineral density (BMD, g/cm2) (~ 11 years old)	U	-0.0008	(-0.0060,0.0043)	0.756	5048	0.835
	J	0.0015	(-0.0041,0.0071)	0.600	5048	
	T	0.0030	(-0.0026,0.0087)	0.294	5048	
	K	0.0026	(-0.0035,0.0088)	0.403	5048	
	other European	0.0003	(-0.0067,0.0073)	0.936	5048	
total bone mineral density (BMD, g/cm2) (~ 13 years old)	U	-0.0035	(-0.0105,0.0035)	0.330	4417	0.707
	J	0.0033	(-0.0043,0.0109)	0.395	4417	
	T	0.0030	(-0.0047,0.0107)	0.447	4417	
	K	-0.0005	(-0.0090,0.0080)	0.912	4417	
	other European	-0.0016	(-0.0112,0.0080)	0.744	4417	
total bone mineral density (BMD, g/cm2) (~ 15 years old)	U	-0.0065	(-0.0147,0.0017)	0.120	3788	0.197
	J	0.0043	(-0.0044,0.0131)	0.335	3788	
	T	0.0035	(-0.0054,0.0123)	0.445	3788	
	K	0.0045	(-0.0051,0.0140)	0.357	3788	
	other European	0.0069	(-0.0039,0.0177)	0.211	3788	
total bone mineral density (BMD, g/cm2) (~ 17 years old)	U	-0.0010	(-0.0105,0.0084)	0.831	3424	0.761
	J	0.0027	(-0.0075,0.0129)	0.609	3424	
	T	0.0057	(-0.0045,0.0159)	0.271	3424	
	K	0.0013	(-0.0096,0.0122)	0.816	3424	
	other European	0.0075	(-0.0055,0.0205)	0.256	3424	

¹Natural logarithm of DHEAS levels.

B - variable		HV	U	J	T	K	other European
young person (YP) was breast fed as a baby							
always	N	1712	450	363	368	309	240
	%	49.8	47.3	47.0	49.3	49.5	52.3
often	N	321	73	58	61	56	33
	%	9.3	7.7	7.5	8.2	9.0	7.2
sometimes	N	102	27	37	23	22	8
	%	3.0	2.8	4.8	3.1	3.5	1.7
never	N	1306	402	314	294	237	178
	%	38.0	42.2	40.7	39.4	38.0	38.8
total	N	6994					
	p-value	0.088					
frequency YP has a drink containing alcohol (~ 17 years old, questionnaire)							
never/monthly or less	N	647	193	141	150	119	89
	%	40.4	42.4	37.1	41.9	40.9	38.0
2-4 times a month	N	716	184	179	140	118	99
	%	44.7	40.4	47.1	39.1	40.6	42.3
2-3 times a week	N	210	69	51	62	50	40
	%	13.1	15.2	13.4	17.3	17.2	17.1
4 or more times a week	N	30	9	9	6	4	6
	%	1.9	2.0	2.4	1.7	1.4	2.6
total	N	3321					
	p-value	0.420					
frequency YP has a drink containing alcohol (~ 17 years old, clinic visit)							
never/monthly or less	N	401	100	75	79	75	53
	%	29.7	25.4	23.4	25.8	28.0	29.4

2-4 times a month	N	615	182	165	153	133	74
	%	45.6	46.2	51.6	50.0	49.6	41.1
2-3 times a week	N	280	100	70	69	48	48
	%	20.8	25.4	21.9	22.6	17.9	26.7
4 or more times a week	N	53	12	10	5	12	5
	%	3.9	3.1	3.1	1.6	4.5	2.8
total	N	2817					
	p-value	0.112					
frequency respondent has a drink containing alcohol (~ 19 years old)							
never/monthly or less	N	200	59	45	55	32	25
	%	18.2	18.6	17.1	22.6	17.4	16.9
2-4 times a month	N	442	130	101	77	64	56
	%	40.2	41.0	38.3	31.7	34.8	37.8
2-3 times a week	N	375	107	93	94	79	57
	%	34.1	33.8	35.2	38.7	42.9	38.5
4 or more times a week	N	82	21	25	17	9	10
	%	7.5	6.6	9.5	7.0	4.9	6.8
total	N	2255					
	p-value	0.372					
over the past year frequency YP had a drink containing alcohol (~21 years old)							
never	N	301	83	75	64	54	32
	%	21.8	19.6	21.4	21.6	22.0	19.2
2-4 times a month	N	557	177	130	110	102	64
	%	40.3	41.8	37.0	37.0	41.6	38.3
2-3 times a week	N	430	135	126	103	77	58
	%	31.1	31.9	35.9	34.7	31.4	34.7
4 or more times a week	N	94	28	20	20	12	13
	%	6.8	6.6	5.7	6.7	4.9	7.8
total	N	2865					

	p-value	0.922					
over the past year frequency YP had a drink containing alcohol (~23 years old)							
never	N	328	98	75	77	59	42
	%	25.4	27.1	23.6	26.3	24.6	26.3
monthly or less	N	292	90	69	65	55	37
	%	22.6	24.9	21.7	22.2	22.9	23.1
2-4 times a month	N	499	147	126	111	104	60
	%	38.6	40.6	39.6	37.9	43.3	37.5
2-3 times a week	N	387	97	105	92	69	46
	%	29.9	26.8	33.0	31.4	28.8	28.8
4 or more times a week	N	79	20	12	13	8	12
	%	6.1	5.5	3.8	4.4	3.3	7.5
total	N	2666					
	p-value	0.702					
frequency of physical activity during the past month (8-12 years old)							
none/less than once a week	N	296	80	70	59	40	31
	%	10.1	10.0	10.4	9.3	7.8	7.9
1-3 times a week	N	1920	534	436	413	334	258
	%	65.3	66.4	64.5	65.1	65.5	65.7
4-6 times a week	N	548	139	134	124	97	82
	%	18.7	17.3	19.8	19.6	19.0	20.9
daily	N	175	51	36	38	39	22
	%	6.0	6.3	5.3	6.0	7.7	5.6
total	N	5956					
	p-value	0.836					
frequency of physical activity during the past month (13-18 years old)							
none/less than once a week	N	504	141	129	122	86	65
	%	17.1	17.5	19.0	19.0	16.8	16.5
1-3 times a week	N	1746	486	389	364	293	235

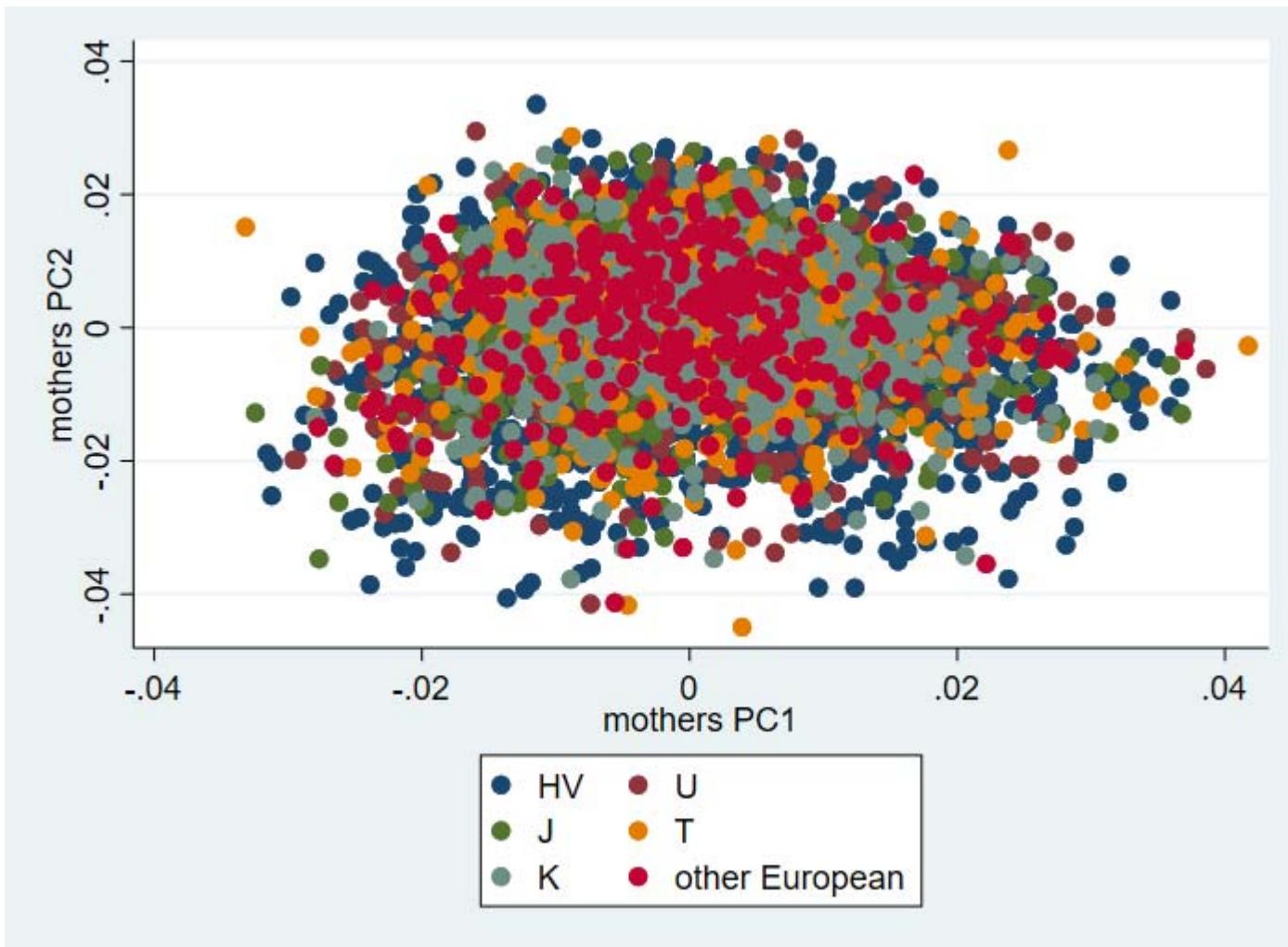
	%	59.4	60.2	57.2	56.9	57.3	59.5
4-6 times a week	N	523	131	126	118	95	74
	%	17.8	16.2	18.5	18.4	18.6	18.7
daily	N	169	50	36	36	37	21
	%	5.7	6.2	5.3	5.6	7.2	5.3
total	N	5976					
	p-value	0.923					
frequency of physical activity during the past year (13-18 years old)							
none/less than once a month	N	262	56	58	43	38	34
	%	11.1	8.6	10.8	8.2	8.9	10.5
1-3 times a month	N	458	137	90	105	69	53
	%	19.4	21.0	16.7	20.0	16.1	16.4
1-4 times a week	N	1224	348	305	289	236	180
	%	51.8	53.5	56.6	55.2	55.1	55.7
5 or more times a week	N	420	110	86	87	85	56
	%	17.8	16.9	16.0	16.6	19.9	17.3
total	N	4829					
	p-value	0.238					
YP was breastfed as a baby							
no	N	654	206	154	149	114	89
	%	47.9	15.1	11.3	10.9	8.4	6.5
yes	N	2800	749	622	598	515	372
	%	49.5	13.2	11.0	10.6	9.1	6.6
total	N	7022					
	p-value	0.516					
YP is a biological parent (21-23 years old)							
no	N	1757	501	423	386	326	225
	%	48.6	13.9	11.7	10.7	9.0	6.2
yes	N	97	16	19	18	12	14

	%	55.1	9.1	10.8	10.2	6.8	8.0
total	N	3794					
	p-value	0.295					
YP ever took oral contraceptives (from 8 to 22 years old)							
no	N	851	229	181	183	135	117
	%	50.2	13.5	10.7	10.8	8.0	6.9
yes	N	991	280	235	224	179	117
	%	48.9	13.8	11.6	11.1	8.8	5.8
total	N	3722					
	p-value	0.574					
YP ever used non-oral hormonal contraceptives (from 17 to 22 years old)							
no	N	1237	329	289	280	220	155
	%	49.3	13.1	11.5	11.2	8.8	6.2
yes	N	183	63	45	39	36	18
	%	47.7	16.4	11.7	10.2	9.4	4.7
total	N	2894					
	p-value	0.474					
teenager has drunk alcohol (~13 years old)							
no	N	888	235	188	194	160	118
	%	49.8	13.18	10.54	10.88	8.97	6.62
yes	N	758	222	185	170	138	89
	%	48.53	14.21	11.84	10.88	8.83	5.7
total	N	3345					
	p-value	0.647					
YP has ever drunk alcohol (~17 years old)							
no	N	100	27	20	19	19	16
	%	49.8	13.4	10.0	9.5	9.5	8.0
yes	N	1608	452	380	356	292	234
	%	48.4	13.6	11.4	10.7	8.8	7.0

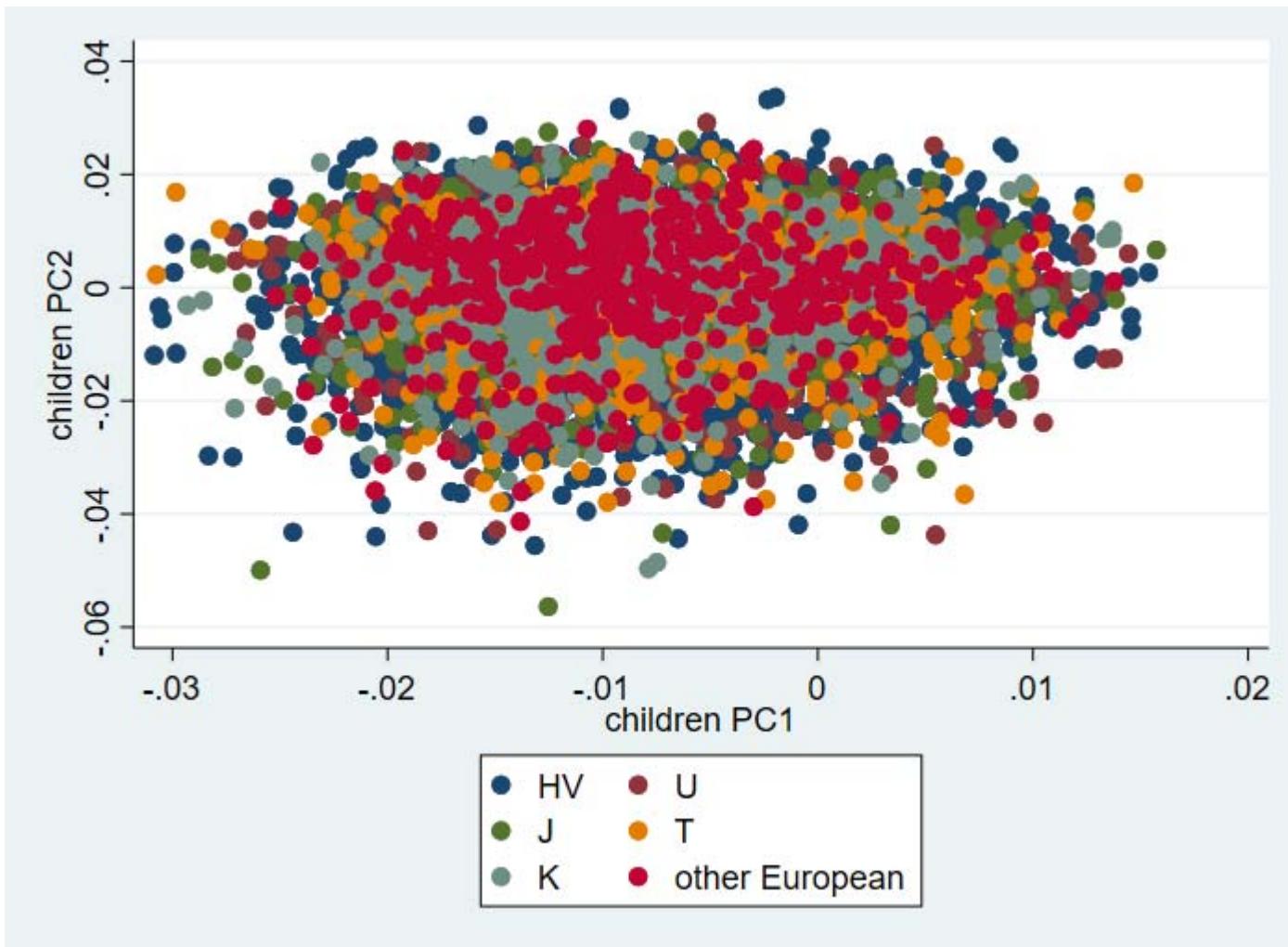
total	N	3523					
	p-value	0.959					
YP ever smoked (from 14 to 23 years old)							
no	N	1072	266	235	229	179	157
	%	50.14	12.44	10.99	10.71	8.37	7.34
yes	N	1893	555	430	420	346	236
	%	48.79	14.3	11.08	10.82	8.92	6.08
total	N	6018					
	p-value	0.164					
YP ever had diabetes (from 11 to 23 years old)							
no	N	1997	557	465	459	386	262
	%	48.4	13.5	11.3	11.1	9.4	6.4
yes	N	7	7	5	3	2	2
	%	26.9	26.9	19.2	11.5	7.7	7.7
total	N	4152					
	p-value	0.186					

Supplementary Table 6. P-values obtained in the adjusted analysis using a quality score threshold of > 80 compared to > 90.

quality_cutoff-comparisons.xls



Supplementary Figure 1. Top two principal components (PCs) by mtDNA haplogroup in ALSPAC mothers.



Supplementary Figure 2. Top two principal components (PCs) by mtDNA haplogroup in ALSPAC children.