

Table 1. Characteristics of the study population

	Women (n=180)						Men (n=188)					
	N	Mean	SD	Median	Percentiles		N	Mean	SD	Median	Percentiles	
					33th	66th					33th	66th
Age at the recruitment (yrs)	180	50.3	16.8	50.5	42.0	59.0	188	50.1	17.3	52.0	40.0	58.0
Body Mass Index (kg/m ²)	166	27.2	5.6	26.1	23.9	28.4	183	27.5	5.1	27.0	25.2	28.4
Follow-up time (months)	180	71.7	9.9	75.1	68.3	76.4	188	71.3	14.4	75.1	69.6	76.8
Number of pregnancies	178	2.4	1.7	2.0	2.0	3.0	-	-	-	-	-	-
Breastfeeding time (months)	178	5.4	5.2	4.0	3.0	6.0	-	-	-	-	-	-
PCB 153 (ng/g lip)	180	278.5	215.4	231.4	163.9	310.2	188	257.0	221.1	212.3	153.6	290.9
PCB 138 (ng/g lip)	180	102.7	90.5	87.7	48.0	120.4	188	88.8	86.4	71.9	39.6	110.5
PCB 180 (ng/g lip)	180	212.0	161.8	175.0	137.5	244.1	188	216.6	187.4	179.0	132.8	255.8
p,p'-DDE (ng/g lip)	180	203.2	262.4	113.0	63.6	184.9	188	143.8	262.1	66.4	36.4	143.3
HCB (ng/g lip)	180	42.3	50.1	29.1	13.0	44.2	188	18.6	31.7	9.3	5.0	14.7
β-HCH (ng/g lip)	180	24.8	30.5	16.1	9.4	25.2	188	11.8	20.7	7.3	3.7	12.1
ΣPCBs (ng/g lip)	180	562.7	491.3	468.7	336.9	644.4	188	570	421	502	336	630
ΣPOPs (ng/g lip)	180	737.0	703.4	602.1	421.6	796.1	188	823.7	621.9	695.7	463.9	929.2
TEXB-extract (Eq/g lip)	180	256.8	278.3	158.9	109.2	237.0	188	230.0	257.7	143.7	103.5	202.7
		n		%				n		%		
Body Mass Index												
<25		71			39.4			53			28.2	
25-30		67			37.2			99			52.7	
>30		42			23.3			36			19.1	
Occupational Class												
I		2			1.1			9			4.8	
II		11			6.1			7			3.7	
III		22			12.2			18			9.6	
IV		42			23.3			113			60.1	
V		98			54.4			26			13.8	
Retired		5			2.8			15			8.0	
Education												
Primary incomplete		49			27.2			54			28.7	
Primary		82			45.6			81			43.1	
Secondary/University		48			26.7			53			28.2	
Missing		1			0.6							
Smoker (yes)		40			22.2			81			43.1	

SD: Standard deviation

Table 2. Cancer events. Tumor localization

		ICD-10	n	%
Women	Stomach	C16	1	0.6
	Rectum	C20	2	1.1
	Skin (melanoma)	C43	2	1.1
	Breast	C50	2	1.1
	Corpus uteri	C54	1	0.6
	Brain	C71	1	0.6
	No cancer		171	95.0
Men	Lip	C00	1	0.5
	Mouth	C06	1	0.5
	Colon	C18	1	0.5
	Rectum	C20	1	0.5
	Lung	C34	2	1.1
	Skin (melanoma)	C43	1	0.5
	Connective tissue	C49	1	0.5
	Prostate	C61	2	1.1
	Urinary bladder	C67	1	0.5
	Brain	C71	1	0.5
	Lymph nodes	C76	1	0.5
	No cancer		175	93.1

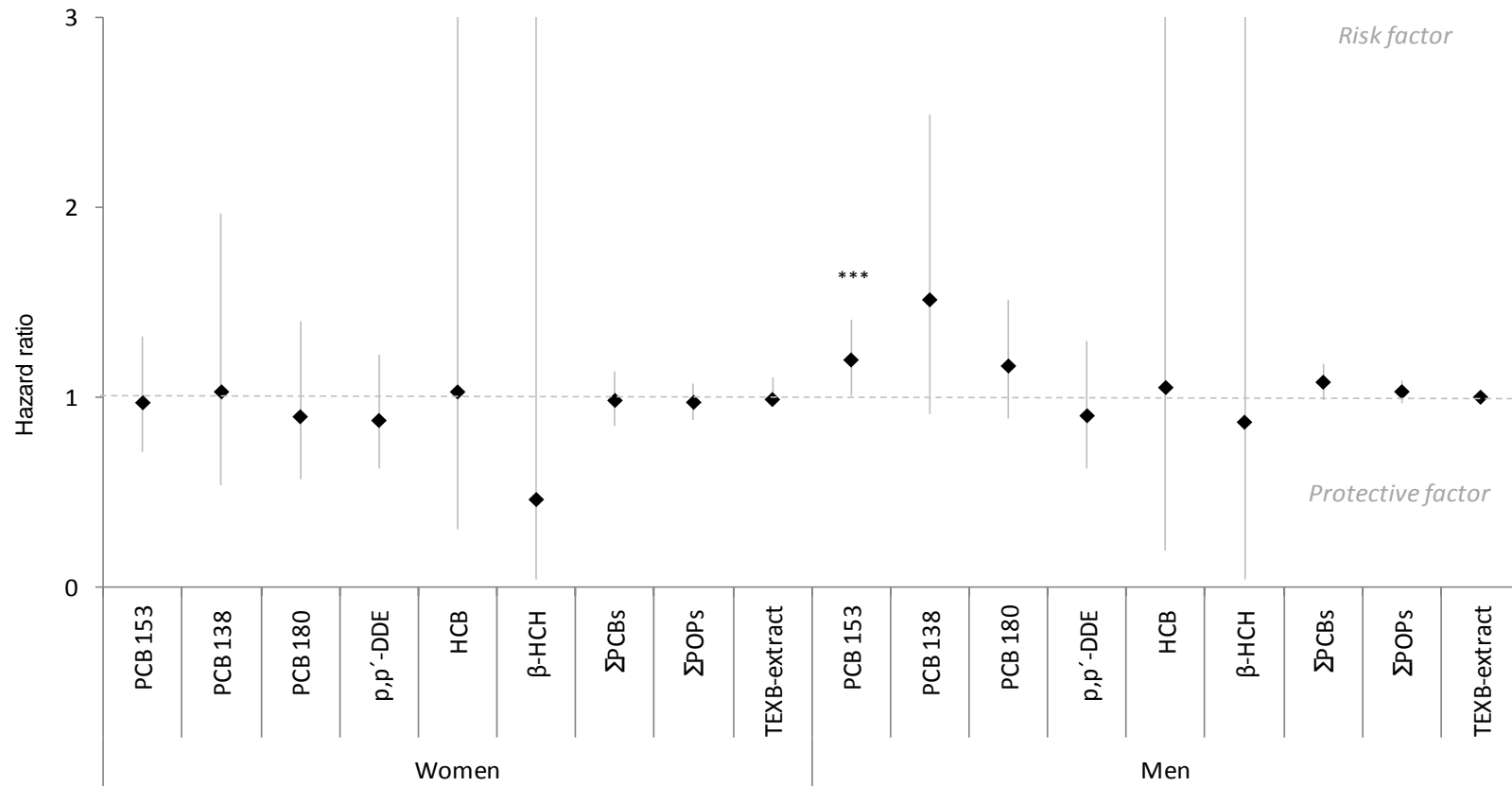
Table 3. Adipose tissue concentrations of persistent organic pollutants (POPs) and risk of cancer. Cox-regression analyses

		Unadjusted model			Model 1			Model 2			Model 3			Model 4		
		HR ¹	95% CI		HR ¹	95% CI		HR ¹	95% CI		HR ¹	95% CI		HR ¹	95% CI	
			lower	upper		lower	upper		lower	upper		lower	upper		lower	upper
Women	PCB 153 (ng/g lip)	1.13	0.88	1.44	1.00	0.74	1.33	1.12	0.88	1.42	1.13	0.88	1.44	0.97	0.71	1.32
	PCB 138 (ng/g lip)	1.48	0.85	2.58	1.15	0.61	2.17	1.39	0.79	2.43	1.48	0.85	2.58	1.03	0.54	1.97
	PCB 180 (ng/g lip)	1.12	0.78	1.60	0.93	0.61	1.41	1.10	0.78	1.57	1.12	0.78	1.60	0.90	0.57	1.40
	<i>p,p'</i> -DDE (ng/g lip)	1.01	0.79	1.28	0.88	0.65	1.21	0.99	0.78	1.27	1.01	0.79	1.28	0.88	0.63	1.23
	HCB (ng/g lip)	1.83	0.84	3.97	1.29	0.42	3.97	1.67	0.75	3.74	1.84	0.84	4.04	1.03	0.31	3.43
	β -HCH (ng/g lip)	2.02	0.43	9.46	0.60	0.07	5.33	1.92	0.39	9.47	2.06	0.43	9.84	0.46	0.05	4.59
	Σ PCBs (ng/g lip)	1.06	0.94	1.19	1.00	0.87	1.14	1.00	0.87	1.14	1.06	0.94	1.19	0.98	0.85	1.14
	Σ POPs (ng/g lip)	1.03	0.95	1.12	0.98	0.89	1.08	1.03	0.95	1.12	1.03	0.95	1.12	0.97	0.88	1.08
	TEXB-extract (Eeq/g lip)	0.99	0.98	1.01	0.99	0.98	1.01	0.99	0.98	1.01	0.99	0.98	1.01	0.99	0.98	1.01
Men	PCB 153 (ng/g lip)	1.23 *	1.06	1.43	1.19 *	1.00	1.41	1.26 *	1.08	1.46	1.26 *	1.08	1.47	1.20 *	1.01	1.41
	PCB 138 (ng/g lip)	1.65 *	1.06	2.55	1.46 *	1.00	2.37	1.73 *	1.11	2.71	1.78 *	1.11	2.85	1.51	0.92	2.49
	PCB 180 (ng/g lip)	1.16	0.94	1.44	1.09	0.85	1.41	1.21	0.98	1.49	1.21	0.96	1.52	1.16	0.89	1.52
	<i>p,p'</i> -DDE (ng/g lip)	1.01	0.82	1.24	0.94	0.71	1.24	1.00	0.78	1.28	1.03	0.83	1.28	0.90	0.63	1.30
	HCB (ng/g lip)	1.53	0.37	6.30	0.95	0.17	5.20	1.52	0.34	6.88	1.84	0.47	7.23	1.05	0.19	5.72
	β -HCH (ng/g lip)	1.55	0.19	13.01	0.78	0.05	11.57	1.51	0.14	16.13	2.14	0.25	18.53	0.87	0.04	17.06
	Σ PCBs (ng/g lip)	1.09 *	1.01	1.17	1.06	0.98	1.16	1.06	0.98	1.16	1.10 *	1.02	1.19	1.08	0.99	1.18
	Σ POPs (ng/g lip)	1.05 *	1.00	1.11	1.02	0.96	1.09	1.05	0.99	1.10	1.05 *	1.00	1.11	1.03	0.97	1.09
	TEXB-extract (Eeq/g lip)	1.01	0.82	1.24	1.04	0.85	1.28	1.00	0.81	1.23	0.99	0.80	1.21	1.00	0.99	1.01

¹ Hazard ratio (in order to assist interpretation, estimates were calculated for an increment of 100 ng/g lipid in POP concentrations)

Model 1: Adjusted for age (yrs); Model 2: Adjusted for BMI (kg/m²); Model 3: Adjusted for smoking habit (smoker/non-smoker); Model 4: Adjusted for age (yrs), BMI (kg/m²) and smoking habit (smoker/non-smoker); TEXB: Total estrogenic xenobiotic burden. * Statistically significant (p<0.05)

Figure 1. Adjusted hazard ratios with their 95% confidence intervals for cancer according to POP concentrations (ng/g lip)



In order to help the interpretation, the hazard ratio was calculated for an increment of 100 ng/g lip in the concentrations