

Additional file 2

Serum levels of environmental pollutants is a risk factor for breast cancer in Inuit: A case control study

Maria Wielsøe, Peder Kern and Eva C. Bonefeld-Jørgensen

Odds ratio of breast cancer risk associated with lipophilic POPs stratified for recruitment period

Compounds	Collection	Unadjusted analysis			Adjusted analysis		
		N (controls/cases)	OR (95% CI)	<i>p</i>	N (controls/cases)	OR (95% CI)	<i>p</i>
∑PCB	2000-2003	31/30	1.000 (1.000; 1.000)	0.422	31/30	1.000 (1.000; 1.000)	0.422
	2011-2014	53/46	1.000 (1.000; 1.001)	0.012	53/46	1.000 (1.000; 1.001)	0.012
∑PCB Grp1*	2000-2003	31/30	1.003 (0.999; 1.007)	0.141	31/30	1.003 (0.999; 1.007)	0.141
	2011-2014	53/46	1.004 (1.001; 1.008)	0.012	53/46	1.004 (1.001; 1.008)	0.012
∑PCB Grp2*	2000-2003	31/30	1.000 (0.999; 1.001)	0.982	31/30	1.000 (0.999; 1.001)	0.982
	2011-2014	53/46	1.001 (1.000; 1.002)	0.009	53/46	1.001 (1.000; 1.002)	0.009
∑PCB Grp3*	2000-2003	31/30	1.000 (1.000; 1.001)	0.234	31/30	1.000 (1.000; 1.001)	0.234
	2011-2014	53/46	1.000 (1.000; 1.001)	0.016	53/46	1.000 (1.000; 1.001)	0.016
∑DL-PCB	2000-2003	31/30	1.000 (0.996; 1.004)	0.992	31/30	1.000 (0.996; 1.004)	0.992
	2011-2014	53/46	1.005 (1.001; 1.010)	0.011	53/46	1.005 (1.001; 1.010)	0.011
∑OCP	2000-2003	31/30	1.000 (1.000; 1.001)	0.077	31/30	1.000 (1.000; 1.001)	0.077
	2011-2014	53/46	1.000 (1.000; 1.001)	0.011	53/46	1.000 (1.000; 1.001)	0.011
PCB99	2000-2003	31/30	1.003 (0.994; 1.012)	0.512	31/30	1.003 (0.994; 1.012)	0.512
	2011-2014	53/46	1.011 (1.001; 1.020)	0.028	53/46	1.011 (1.001; 1.020)	0.028
PCB101	2000-2003	31/30	0.976 (0.917; 1.039)	0.444	31/30	0.976 (0.917; 1.039)	0.444
	2011-2014	53/46	1.046 (0.962; 1.138)	0.292	53/46	1.046 (0.962; 1.138)	0.292
PCB105	2000-2003	31/30	1.000 (0.969; 1.031)	0.978	31/30	0.999 (0.964; 1.035)	0.948
	2011-2014	53/46	1.044 (0.996; 1.091)	0.054	53/46	1.044 (0.996; 1.091)	0.054
PCB118	2000-2003	31/30	1.003 (0.997; 1.009)	0.374	31/30	1.003 (0.997; 1.009)	0.374
	2011-2014	53/46	1.008 (1.001; 1.015)	0.025	53/46	1.008 (1.001; 1.015)	0.025
PCB138	2000-2003	31/30	1.000 (0.998; 1.002)	0.858	31/30	1.000 (0.998; 1.002)	0.858
	2011-2014	53/46	1.003 (1.001; 1.005)	0.008	53/46	1.003 (1.001; 1.005)	0.008
PCB153	2000-2003	31/30	1.001 (1.000; 1.002)	0.190	31/30	1.001 (1.000; 1.002)	0.190

	2011-2014	53/46	1.001 (1.000; 1.002)	0.014	53/46	1.001 (1.000; 1.002)	0.014
PCB156	2000-2003	31/30	0.991 (0.980; 1.003)	0.126	31/30	0.991 (0.980; 1.003)	0.126
	2011-2014	53/46	1.016 (1.004; 1.029)	0.011	53/46	1.016 (1.004; 1.029)	0.011
PCB170	2000-2003	31/30	1.001 (0.996; 1.005)	0.806	31/30	1.001 (0.996; 1.005)	0.806
	2011-2014	53/46	1.004 (1.001; 1.007)	0.021	53/46	1.004 (1.001; 1.007)	0.021
PCB180	2000-2003	31/30	1.001 (0.999; 1.002)	0.290	31/30	1.001 (0.999; 1.002)	0.290
	2011-2014	53/46	1.001 (1.000; 1.002)	0.026	53/46	1.001 (1.000; 1.002)	0.026
PCB183	2000-2003	31/30	1.008 (0.989; 1.027)	0.401	31/30	1.008 (0.989; 1.027)	0.401
	2011-2014	53/46	1.023 (1.005; 1.041)	0.014	53/46	1.023 (1.005; 1.041)	0.014
PCB187	2000-2003	31/30	1.002 (0.998; 1.006)	0.299	31/30	1.002 (0.998; 1.006)	0.299
	2011-2014	53/46	1.004 (1.001; 1.008)	0.012	53/46	1.004 (1.001; 1.008)	0.012
cis-Nonachlor	2000-2003	31/30	1.004 (0.995; 1.014)	0.337	31/30	1.004 (0.995; 1.014)	0.337
	2011-2014	53/46	1.010 (1.002; 1.018)	0.011	53/46	1.010 (1.002; 1.018)	0.011
Trans-Nonachlor	2000-2003	31/30	1.001 (0.999; 1.003)	0.186	31/30	1.001 (0.999; 1.003)	0.186
	2011-2014	53/46	1.002 (1.000; 1.003)	0.007	53/46	1.002 (1.000; 1.003)	0.007
HCB	2000-2003	31/30	1.000 (0.997; 1.003)	0.830	31/30	1.000 (0.997; 1.003)	0.830
	2011-2014	53/46	1.004 (1.001; 1.007)	0.017	53/46	1.004 (1.001; 1.007)	0.017
Mirex	2000-2003	31/30	1.001 (0.989; 1.014)	0.823	31/30	1.001 (0.989; 1.014)	0.823
	2011-2014	53/46	1.012 (1.001; 1.023)	0.029	53/46	1.012 (1.001; 1.023)	0.029
Oxychlordan	2000-2003	31/30	1.002 (0.999; 1.005)	0.184	31/30	1.002 (0.999; 1.005)	0.184
	2011-2014	53/46	1.002 (1.000; 1.004)	0.014	53/46	1.002 (1.000; 1.004)	0.014
p,p'DDE	2000-2003	31/30	1.001 (1.000; 1.001)	0.036	31/30	1.001 (1.000; 1.001)	0.036
	2011-2014	53/46	1.001 (1.000; 1.001)	0.026	53/46	1.001 (1.000; 1.001)	0.026
p,p'DDT	2000-2003	31/30	1.013 (0.992; 1.034)	0.233	31/30	1.013 (0.992; 1.034)	0.233
	2011-2014	53/45	1.017 (0.992; 1.042)	0.185	53/45	1.017 (0.992; 1.042)	0.185
βHCH	2000-2003	31/30	1.003 (0.981; 1.025)	0.795	31/30	1.003 (0.981; 1.025)	0.795
	2011-2014	53/46	1.022 (1.001; 1.044)	0.042	53/46	1.022 (1.001; 1.044)	0.042

n: number of observations per group; OR: odds ratio; 95% CI: 95% confidence interval; Unadjusted analysis: unadjusted estimates were reported; Adjusted: adjusted for confounders identified by change in estimate, following confounders were considered age, BMI, cotinine levels, parity, and breastfeeding; **Bold text**: Significant finding; Σ PCB: PCB 99, 101, 105, 118, 128, 138, 153, 156, 170, 180, 183, 187; Σ PCB group 1 (estrogenic PCBs): PCB 101, 187; Σ PCB group 2 (anti-estrogenic and dioxin-like PCBs): PCB 105, 118, 128, 138, 156, 170; Σ PCB group 3 (CYP1A1 and CYP2B inducing PCBs): PCB 99, 153, 180, 183; Σ DL-PCBs (dioxin-like PCBs): PCB 105, 118, 156; Σ OCP: p,p'-DDT, p,p'-DDE, mirex, β-HCH, HCB, cis- and trans-nonachlor, and oxychlordan.

