

**Persistent organic pollutant levels in maternal, cord blood plasma and breast milk:  
Results from the Rio Birth Cohort Pilot Study of Environmental Exposure and Childhood  
Development (PIPA Study)**

**Supplemental Material**

**Table S1.** Calibration parameters and limits for OCs and PCBs.

<b>Organochlorine and PCB</b>	<b>Slope</b>	<b>Linear Coefficient</b>	<b>Linearity</b>	<b>Recovery (%)</b>	<b>LOQ ng mL<sup>-1</sup></b>	<b>LOD ng mL<sup>-1</sup></b>
2,4'-DDD	164424	-105963	0.9847	102	0.189	0.063
2,4'-DDE	133466	-104848	0.9824	102	0.201	0.066
2,4'-DDT	206667	-144347	0.9658	105	0.063	0.021
4,4'-DDD	212082	6675	0.936	101	0.09	0.03
4,4'-DDE	111655	-33095	0.9736	99	0.205	0.068
4,4'-DDT	205722	-229041	0.9562	102	0.145	0.048
Aldrin	4576	-8718	0.9854	99	0.818	0.27
alfa-Chlordane	11662	-14012	0.9787	97	0.715	0.236
alfa-Endosulfan	5767	-9126	0.9631	105	1.125	0.371
alfa-HCH	92536	-70174	0.9832	94	0.201	0.066
beta-Endosulfan	5994	-7198	0.9946	101	0.619	0.204
beta-HCH	58035	-39473	0.9865	97	0.053	0.017
delta-HCH	30644	-25637	0.9838	97	0.172	0.057
Dicofol	89022	-93845	0.9921	94	0.101	0.033
Dieldrin	7141	-14131	0.988	103	0.476	0.157
Endosulfan sulfate	29623	-31105	0.962	102	1.009	0.333
Endrin	7571	-13910	0.9906	96	0.734	0.242
gama-Chlordane	10049	-16507	0.9634	93	1.419	0.468
gama-HCH	39580	-27352	0.9833	96	0.212	0.07
Heptachlor	32598	-27788	0.9783	96	0.162	0.053
Heptachlor epoxide	8442	-14194	0.9808	99	1.189	0.392
Hexachlorobenzene	278528	-48803	0.983	94	0.045	0.015
Metoxichlor	99450	-96189	0.9648	99	0.159	0.052
Mirex	74864	-68552	0.9764	101	0.149	0.049
Pentachloroanisole	96295	-92860	0.9726	95	0.143	0.047
trans-Nonachlor	5848	-7051	0.9825	103	0.64	0.21
PCB 28	274097	-134898	0.9774	95	0.19	0.06
PCB 31	484003	-637790	0.9656	94	0.17	0.06
PCB 52	124862	-37259	0.9731	95	0.19	0.06
PCB 77	68743	-178717	0.9412	99	0.25	0.08
PCB 101	35008	-95681	0.9525	96	0.25	0.08
PCB 105	44770	-78194	0.9452	100	0.24	0.08
PCB 118	52787	-83860	0.9652	98	0.19	0.06

PCB 126	33000	-72587	0.9587	87	0.19	0.06
PCB 128	10601	-18607	0.9674	99	0.27	0.09
PCB 138	24033	-70547	0.9461	97	0.3	0.1
PCB 153	42680	-36395	0.9583	109	0.05	0.02
PCB 156	6723	-40544	0.9481	107	0.17	0.06
PCB 169	6078	-348809	0.9552	99	1.08	0.36
PCB 170	9318	-27753	0.9458	95	0.96	0.32
PCB 180	65180	-34198	0.9886	94	0.2	0.07

**Table S2.** Estimated HQ from breast milk described in the literature.

Country	Estimated HQ	Situation	Reference
Brazil	Mean <sup>a</sup> 0.28 <sup>b</sup> 0.14 <sup>c</sup> Highest value <sup>a</sup> 104.85 <sup>b</sup> 52.43 <sup>c</sup>	Riverine mothers	[22]
Brazil	3.14x10 <sup>-4</sup>	Mothers from urban area and countryside	[23]
Ethiopia	Mean <sup>a</sup> 58.80 <sup>b</sup> 29.40 <sup>c</sup>	Mothers from subsistence farming areas	[21]
India	Mean <sup>a</sup> 21.44 <sup>b</sup> 10.72 <sup>c</sup>	Mothers from rural and urban areas	[54]
Poland	Primipara mothers Mean 0.30 <sup>b</sup> 0.15 <sup>c</sup> Highest Value 2.5 <sup>b</sup> 1.23 <sup>c</sup> Multipara mothers Mean 0.34 <sup>b</sup> 0.17 <sup>c</sup> Highest Value 3.20 <sup>b</sup> 1.60 <sup>c</sup>	Primipara and multipara mothers	[55]
Turkey	Van Mean 25.32 <sup>b</sup> 12.66 <sup>c</sup> Manisa Mean 24.08 <sup>b</sup> 12.04 <sup>c</sup>	Mothers living in Van and Manisa	[56]
USA	28 <sup>b</sup> 14 <sup>c</sup>	Mothers from Pitt, Durham, and Wake, North Carolina	[57]
New Zealand	North region 12.32 South region 6.16	Mothers from Auckland and Christchurch	[58]

<sup>a</sup> Adjusted by 4% of lipid; <sup>b</sup> IRIS EPA estimation; <sup>c</sup> FAO/WHO estimation