

Supplementary data depository

Distribution of lipids

In the article, the distribution of total lipid content in the three compartments (maternal plasma, cord plasma and mothers milk) was a central issue. Below is a graphic representation (histograms) of this lipid distribution.

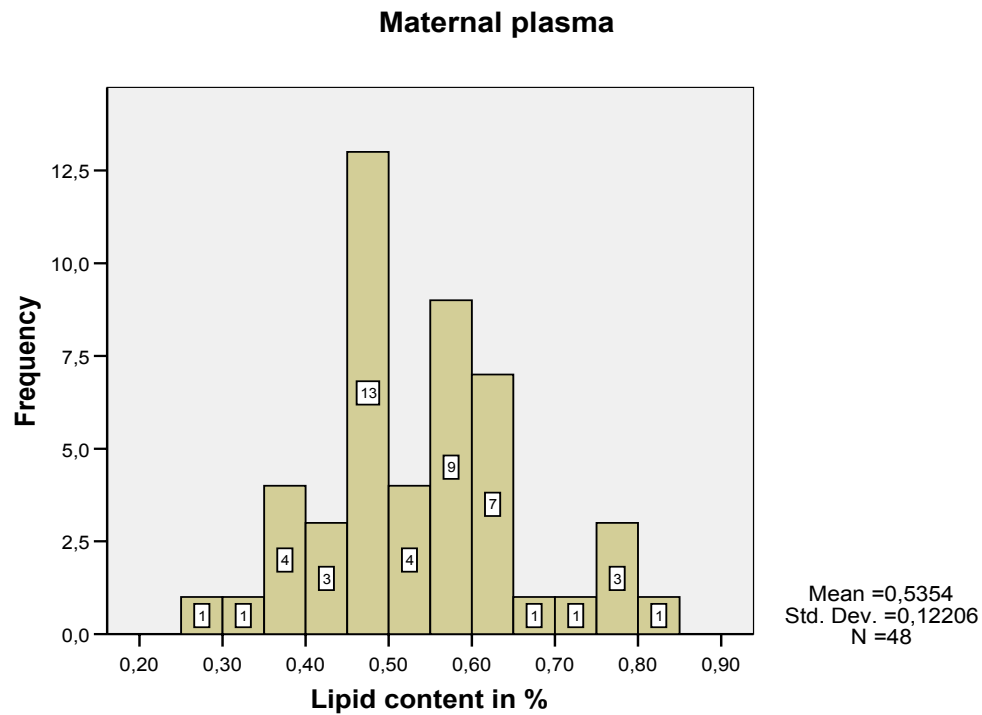


Fig. S1. Distribution of total lipids in maternal plasma. Numbers inside columns represent the frequency of observations.

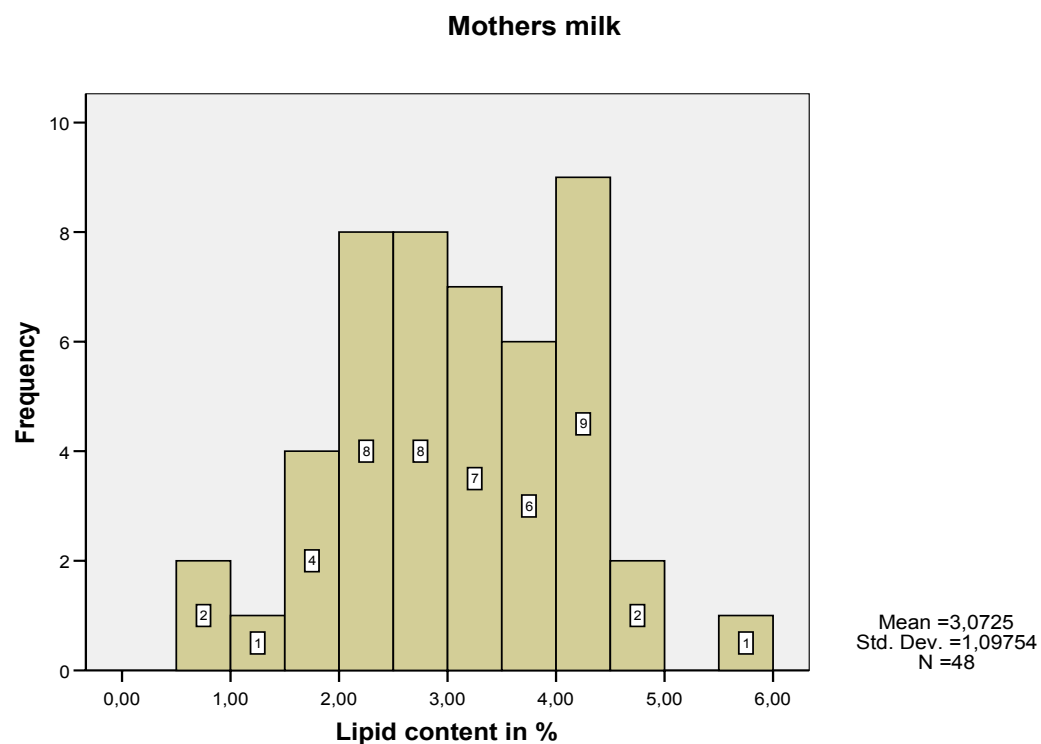


Fig. S2. Distribution of total lipids in breast milk. Numbers inside columns represent the frequency of observations.

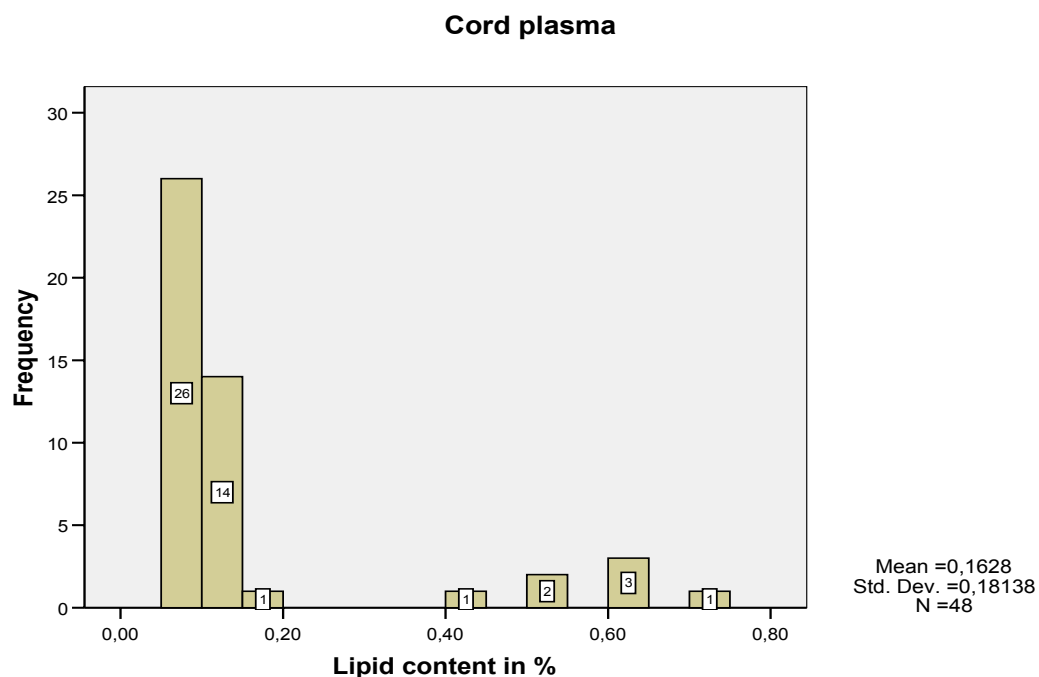


Fig. S3. Distribution of total lipids in cord plasma. Numbers inside columns represent the frequency of observations.

Scatter plots for some selected compounds

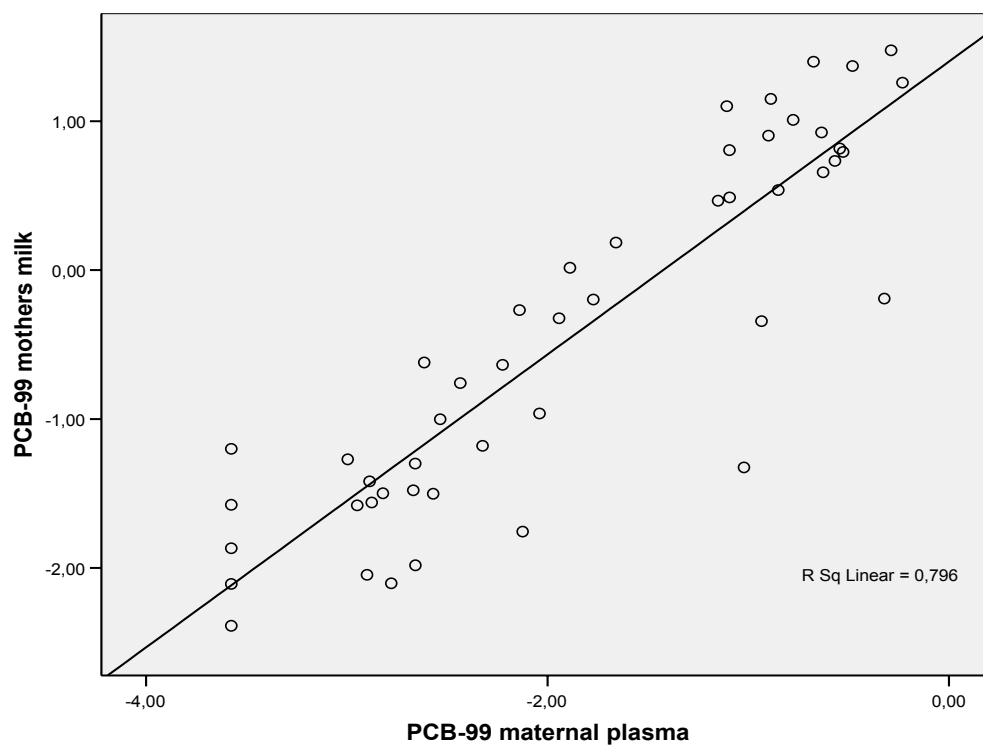


Fig. S4. Normal scatter plot for correlations (r^2) for PCB-99 in maternal plasma and mother's milk (unadjusted and log-transformed).

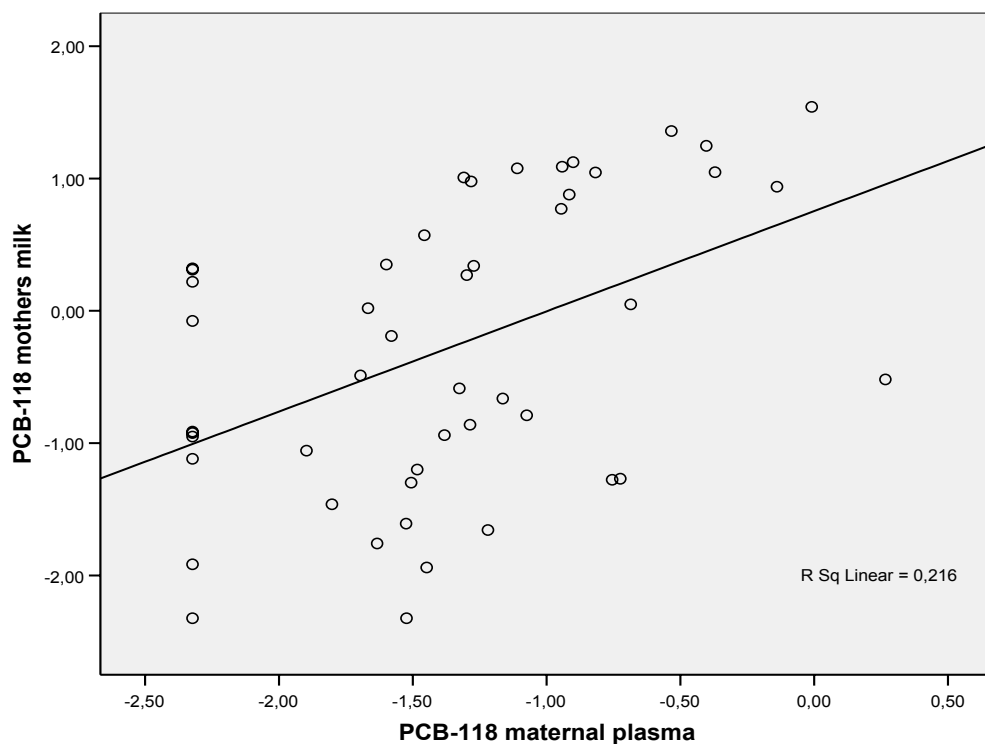


Fig. S5. Normal scatter plot for correlations (r^2) for PCB-118 in maternal plasma and mothers milk (unadjusted and log-transformed).

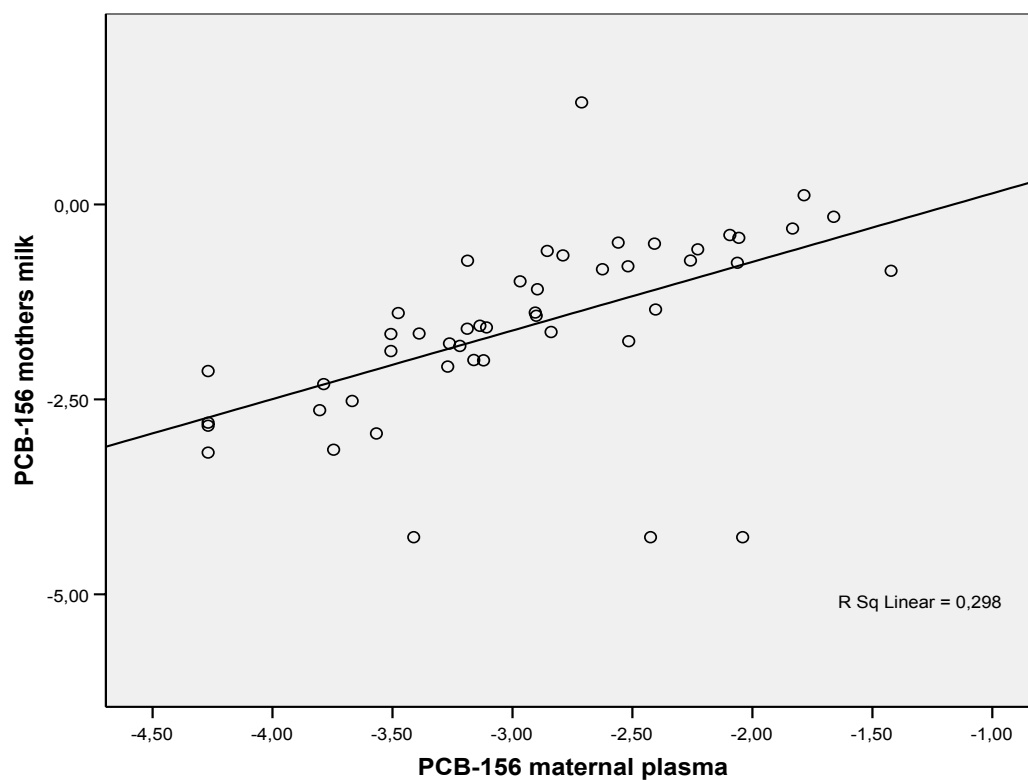


Fig. S6. Normal scatter plot for correlations (r^2) for PCB-156 in maternal plasma and mothers milk (unadjusted and log-transformed).

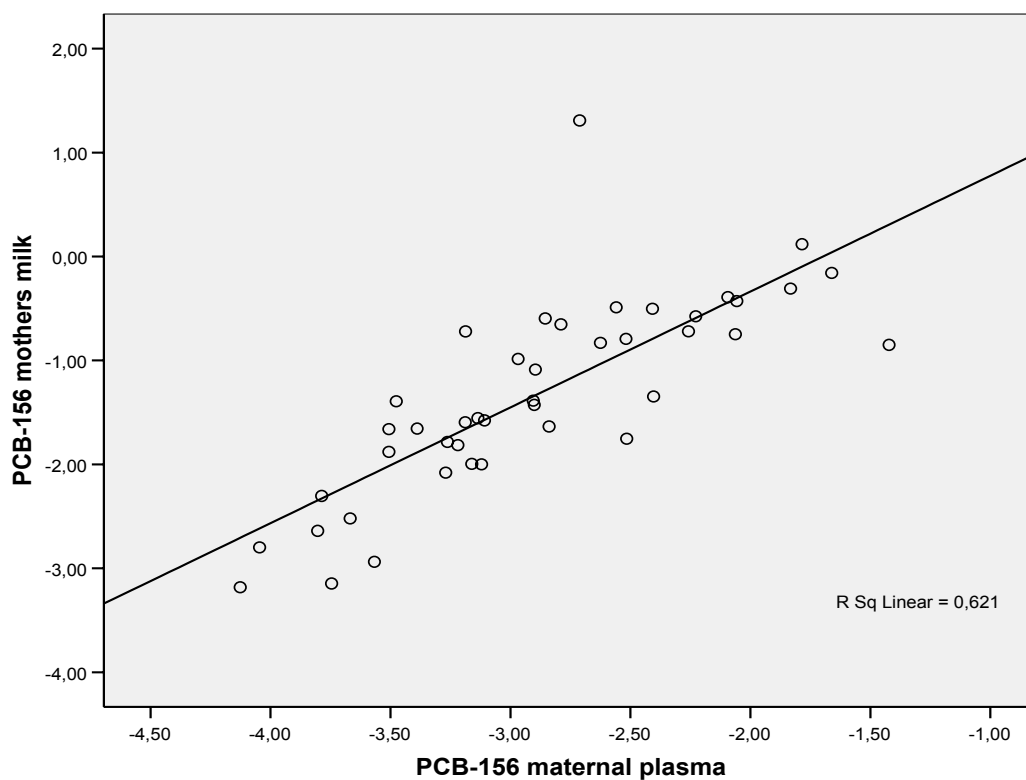


Fig. S7. Normal scatter plot for correlations (r^2) for PCB-156 in maternal plasma and mothers milk after removal of values below the detection limit (unadjusted and log-transformed).

Scatter plots for some more selected compounds

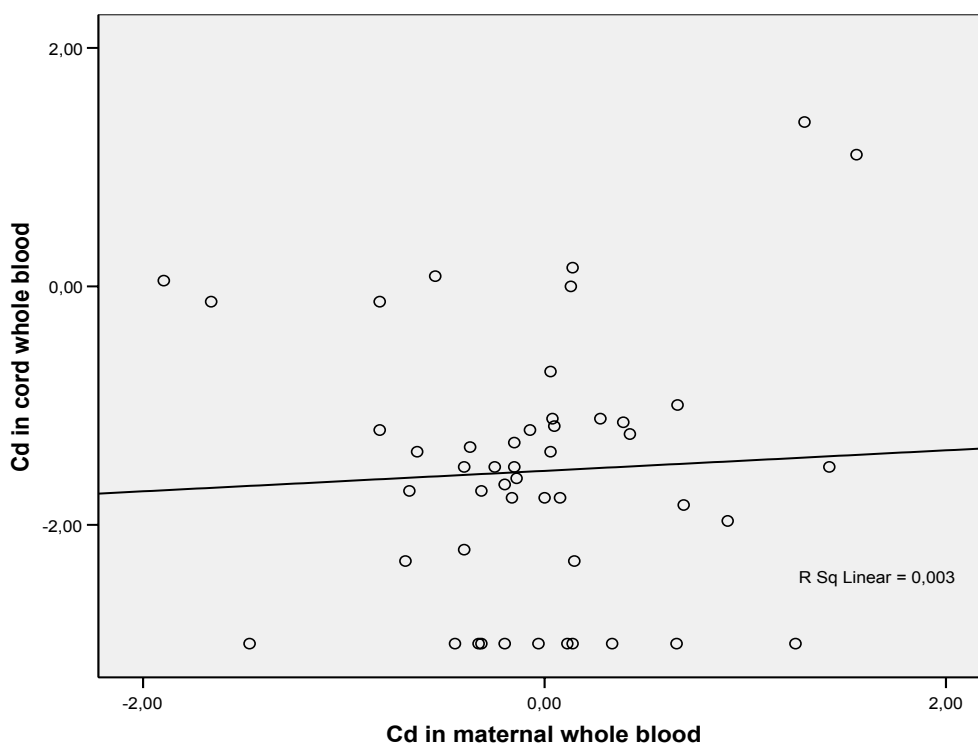


Fig. S8. Normal scatter plot for correlations (r^2) for Cd in maternal blood and cord blood, (unadjusted and log-transformed).

Distributions and log transformations

Most of the substances had a lognormal distribution in the different compartments. Some of the DDTs however, did not. It was not an option to only log transform some of the congeners, but the histograms below show visually, that the log transformations were also justified for the congeners with a normal distribution.

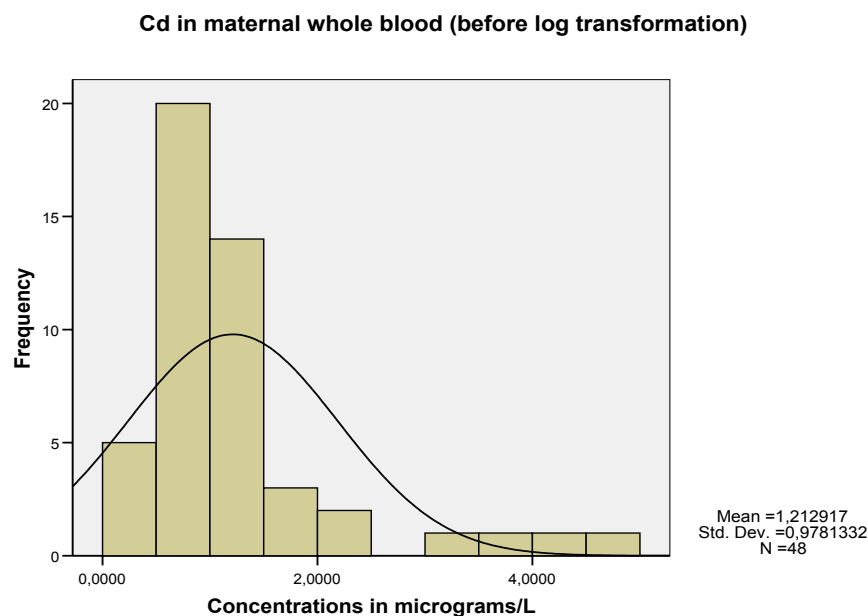


Fig. S9. Frequency distribution of Cd concentrations in maternal whole blood (original data)

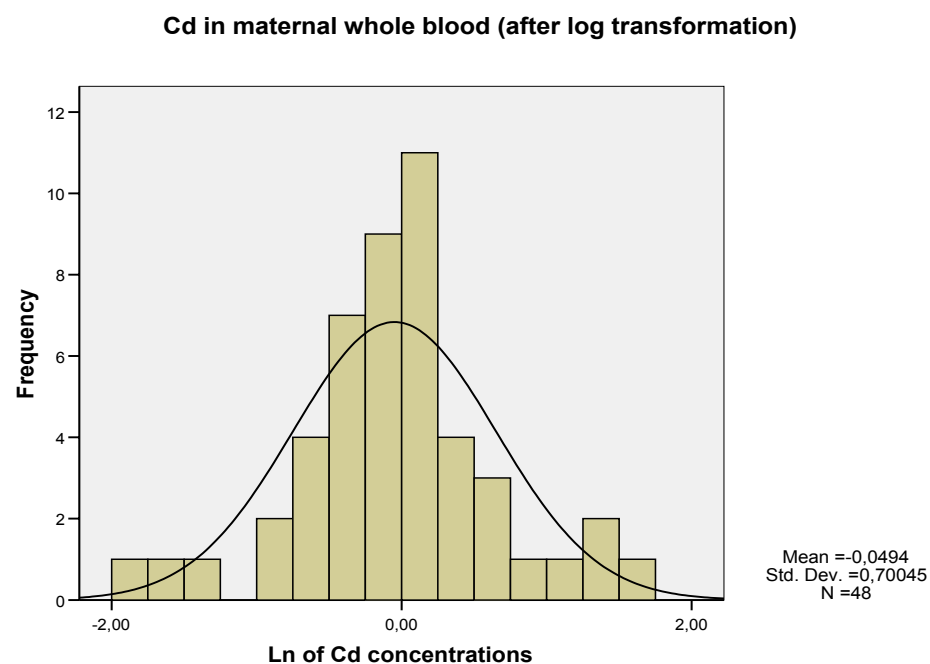


Fig. S10. Frequency distribution of Cd concentrations in maternal whole blood (log-transformed data)

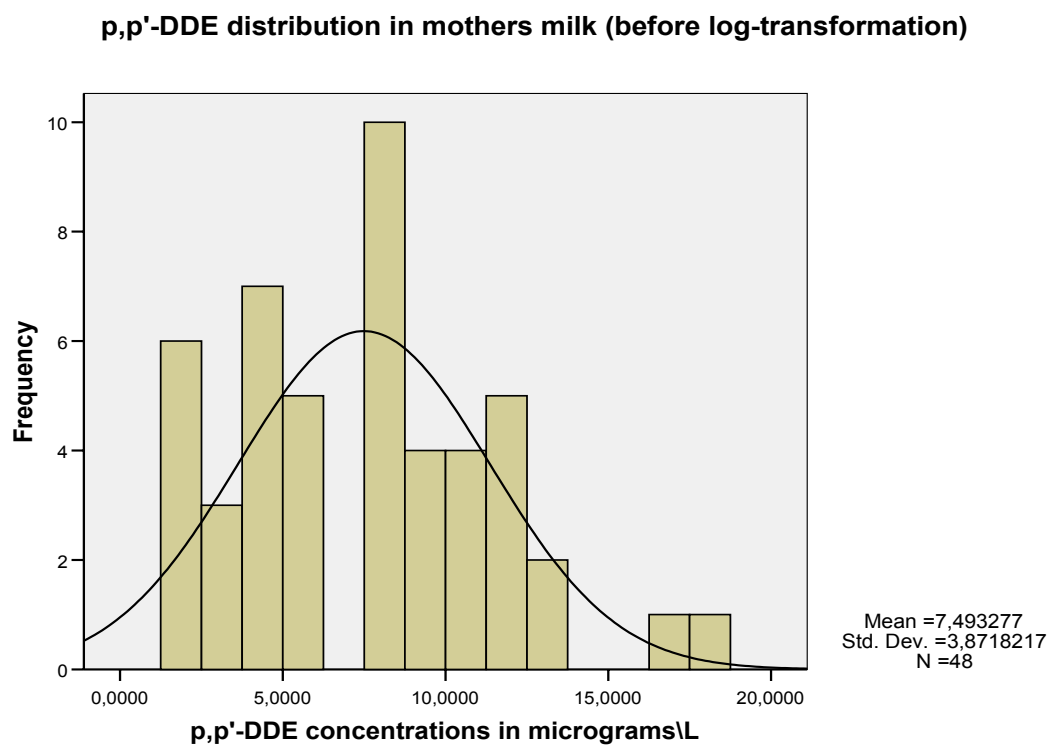


Fig. S11. Frequency distribution of p,p'- DDE concentrations in mothers milk (original data)

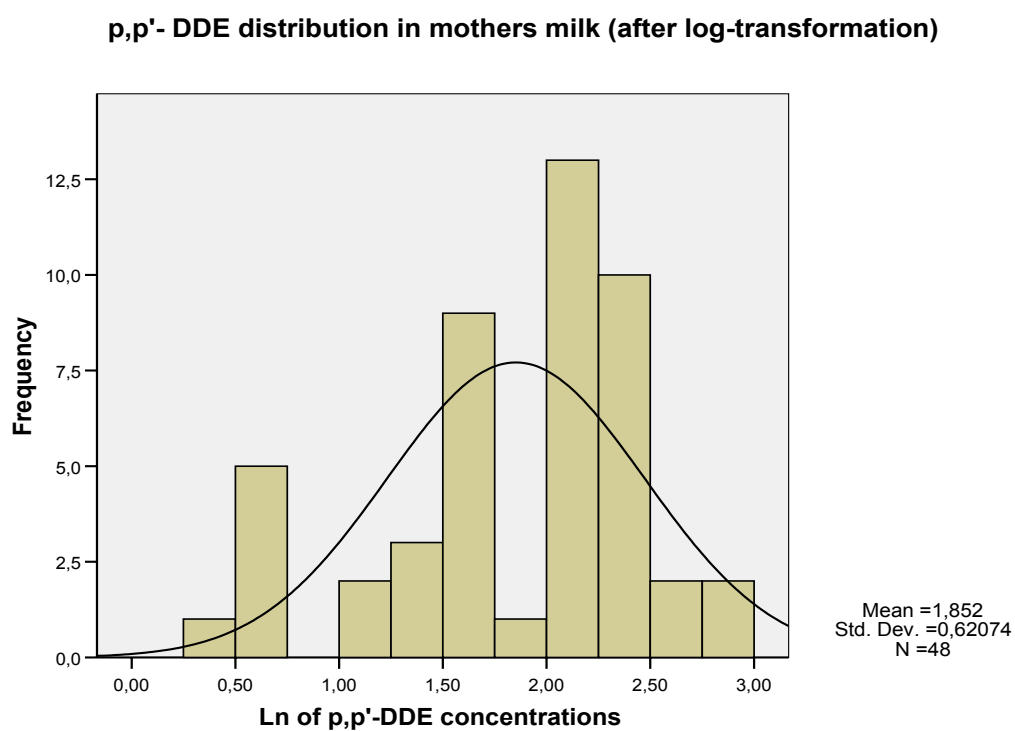


Fig. S12. Frequency distribution of p,p'- DDE concentrations in mothers milk after log-transformation

Table S1 Detection Limits (µg/L)

Name of congener	DL ^a	% Below DL (Mother's Milk) ^b	% Below DL (Maternal plasma) ^b	% Below DL (Cord plasma) ^b
PCB 28/31 [CL3]	0.040	2.1	25	81.3
PCB 52 [CL4]	0.040	25	52.1	81.3
PCB 99 [CL5]	0.040	0	8.3	41.7
PCB 101 [CL5]	0.060	39.6	39.6	81.3
PCB 105 [CL5]	0.090	29.2	41.7	77.1
PCB 118 [CL5]	0.140	4.2	18.8	64.6
PCB 128 [CL6]	0.020	64.6	47.9	62.5
PCB 138 [CL6]	0.070	0	12.5	54.2
PCB 153 [CL6]	0.050	0	0	33.3
PCB 156 [CL6]	0.020	6.3	4.2	45.8
PCB 170 [CL7]	0.020	0	4.2	41.7
PCB 180 [CL7]	0.030	0	2.1	39.6
PCB 183 [CL7]	0.010	2.1	2.1	50.0
PCB 187 [CL7]	0.010	2.1	4.2	29.2
ΣPCBs	0.020	0	0	0
Aroclor (1260)	0.200	Not measured	0	18.8
α-HCH	0.020	8.3	87.5	97.9
β-HCH	0.020	0	0	8.3
γ-HCH	0.020	43.8	87.5	91.7
ΣHCHs	0.017	0	0	8.3
oxy-Chlordane	0.020	2.1	31.3	56.3
trans-Chlordane	0.010	75.0	93.8	100
cis-Chlordane	0.010	12.5	85.4	87.5
ΣChlordanes	0.012	2.1	33.3	56.3
o,p'-DDE	0.010	29.2	85.4	91.7
p,p'-DDE	0.010	0	0	0
o,p'-DDD	0.010	66.7	100	100
p,p'-DDD	0.020	0	77.1	85.4
o,p'-DDT	0.080	62.5	81.3	97.9
p,p'-DDT	0.080	0	16.7	64.6
ΣDDTs	0.023	0	0	0
Hexachlorobenzene	0.022	0	0	0
Dieldrin	0.040	31.3	97.9	77.1
Mirex	0.020	18.8	45.8	72.9
trans-Norachlor	0.010	0	0	31.3
cis-Norachlor	0.010	0	10.4	58.3
ToxP- 26	0.016	4.2	45.8	68.8
ToxP- 50	0.008	2.1	8.3	62.5
ToxP- 62	0.030	93.8	100	100
ΣToxPs	0.018	2.1	12.5	66.7
Cadmium (whole blood)	0.020	Not measured	0	0
Lead (whole blood)	5.000	Not measured	0	0
Mercury (whole blood)	0.700	Not measured	29.2	33.3

^a Detection limits for 2 mL samples^b Detection frequency (percent wise observations above the detection limit); boxes marked with red color have a detection frequency of more than 80%.

Name of congener	PCB 2831	PCB 99	PCB 118	PCB 138	PCB 153	PCB 156	PCB 170	PCB 180	PCB 183	PCB 187	Σ PCB	α-HCH	β-HCH	Σ HCH	oxy-Chl.	Σ Chl.	Pp'-DDE	Pp'-DDD	Pp'-DDT	Σ DDT	HCB	Mir.	tra-Non.	cis-Non.	Tox 50	Σ Tox
PCB 2831		0.67 (0.46-0.89)	0.70 (0.49-0.92)	0.62 (0.38-0.85)	0.69 (0.47-0.90)	0.49 (0.23-0.75)	0.63 (0.40-0.86)	0.68 (0.47-0.90)	0.60 (0.36-0.94)	0.72 (0.52-0.93)	0.72 (0.51-0.92)	0.35 (0.07-0.63)	0.66 (0.44-0.88)	0.43 (0.28-0.58)	0.63 (0.40-0.86)	0.63 (0.39-0.86)	0.34 (0.05-0.61)	0.14 (-0.15-0.43)	0.04 (-0.26-0.34)	0.03 (-0.26-0.34)	0.65 (0.42-0.87)	0.65 (0.43-0.88)	0.62 (0.38-0.85)	0.57 (0.32-0.81)	0.59 (0.35-0.83)	0.61 (0.37-0.84)
PCB 99			0.97 (0.90-1.00)	0.96 (0.88-1.00)	0.95 (0.86-1.00)	0.76 (0.56-0.95)	0.88 (0.75-1.00)	0.92 (0.81-1.00)	0.94 (0.83-1.00)	0.77 (0.71-1.00)	0.97 (0.91-1.00)	0.64 (0.41-0.87)	0.77 (0.63-0.96)	0.60 (0.48-0.72)	0.93 (0.83-1.00)	0.93 (0.82-1.00)	0.89 (0.75-1.00)	0.62 (0.39-0.86)	0.25 (-0.04-0.54)	0.11 (-0.19-0.40)	0.58 (0.34-0.83)	0.86 (0.71-1.00)	0.85 (0.69-1.00)	0.90 (0.77-1.00)	0.84 (0.68-1.00)	0.87 (0.72-1.00)
PCB 118				0.97 (0.87-1.00)	0.95 (0.85-1.00)	0.75 (0.55-0.95)	0.86 (0.71-1.00)	0.90 (0.77-1.00)	0.94 (0.84-1.00)	0.92 (0.81-1.00)	0.97 (0.90-1.00)	0.72 (0.51-0.92)	0.81 (0.64-0.98)	0.82 (0.65-0.99)	0.89 (0.76-1.00)	0.89 (0.75-1.00)	0.62 (0.39-0.86)	0.25 (-0.04-0.54)	0.11 (-0.19-0.40)	0.58 (0.34-0.83)	0.86 (0.71-1.00)	0.85 (0.69-1.00)	0.90 (0.77-1.00)	0.84 (0.68-1.00)	0.84 (0.68-1.00)	0.87 (0.72-1.00)
PCB 138					0.95 (0.86-1.00)	0.79 (0.61-0.97)	0.88 (0.74-1.00)	0.93 (0.81-1.00)	0.93 (0.83-1.00)	0.91 (0.79-1.00)	0.97 (0.90-1.00)	0.70 (0.49-0.91)	0.81 (0.63-0.98)	0.82 (0.65-0.99)	0.90 (0.77-1.00)	0.90 (0.80-1.00)	0.60 (0.36-0.84)	0.24 (-0.05-0.53)	0.07 (-0.23-0.36)	0.56 (0.31-0.80)	0.85 (0.69-1.00)	0.84 (0.67-1.00)	0.89 (0.76-1.00)	0.81 (0.63-0.98)	0.82 (0.64-0.99)	0.84 (0.68-1.00)
PCB 153						0.74 (0.54-0.94)	0.90 (0.78-1.00)	0.95 (0.86-1.00)	0.90 (0.77-1.00)	0.93 (0.82-1.00)	0.99 (0.95-1.00)	0.64 (0.41-0.87)	0.77 (0.63-0.96)	0.78 (0.59-0.97)	0.93 (0.83-1.00)	0.92 (0.80-1.00)	0.53 (0.28-0.78)	0.19 (-0.11-0.48)	0.00 (-0.30-0.30)	0.49 (0.23-0.75)	0.86 (0.71-1.00)	0.92 (0.80-1.00)	0.93 (0.76-1.00)	0.85 (0.69-1.00)	0.83 (0.67-1.00)	0.86 (0.70-1.00)
PCB 156							0.73 (0.53-0.93)	0.76 (0.57-0.95)	0.79 (0.60-0.97)	0.78 (0.53-0.94)	0.78 (0.59-0.96)	0.61 (0.37-0.85)	0.64 (0.42-0.87)	0.65 (0.43-0.88)	0.65 (0.42-0.88)	0.64 (0.42-0.87)	0.20 (-0.10-0.49)	0.11 (-0.18-0.40)	0.54 (0.29-0.65)	0.63 (0.40-0.86)	0.60 (0.36-0.84)	0.66 (0.43-0.88)	0.66 (0.43-0.88)	0.58 (0.34-0.82)	0.58 (0.32-0.82)	
PCB 170								0.95 (0.85-1.00)	0.83 (0.66-0.99)	0.88 (0.74-1.00)	0.92 (0.80-1.00)	0.48 (0.22-0.74)	0.74 (0.54-0.94)	0.75 (0.55-0.94)	0.89 (0.76-1.00)	0.88 (0.74-1.00)	0.41 (0.14-0.68)	0.10 (-0.19-0.40)	0.02 (-0.28-0.31)	0.37 (0.10-0.65)	0.77 (0.57-0.96)	0.84 (0.68-1.00)	0.86 (0.70-1.00)	0.78 (0.60-0.97)	0.73 (0.53-0.93)	0.76 (0.56-0.95)
PCB 180									0.88 (0.74-1.00)	0.93 (0.81-1.00)	0.96 (0.88-1.00)	0.56 (0.31-0.80)	0.73 (0.53-0.93)	0.74 (0.54-0.94)	0.89 (0.76-1.00)	0.88 (0.76-1.00)	0.45 (0.19-0.72)	0.10 (-0.20-0.39)	0.08 (-0.38-0.22)	0.40 (0.13-0.68)	0.79 (0.61-0.97)	0.88 (0.74-1.00)	0.78 (0.59-0.96)	0.78 (0.60-0.97)	0.79 (0.60-0.97)	
PCB 183										0.88 (0.74-1.00)	0.92 (0.81-1.00)	0.72 (0.52-0.93)	0.71 (0.51-0.92)	0.80 (0.63-0.98)	0.93 (0.81-1.00)	0.85 (0.69-1.00)	0.60 (0.36-0.84)	0.20 (-0.09-0.49)	0.12 (-0.18-0.31)	0.56 (0.32-0.80)	0.82 (0.65-0.99)	0.85 (0.63-0.98)	0.85 (0.70-1.00)	0.84 (0.68-1.00)	0.84 (0.68-1.00)	0.86 (0.71-1.00)
PCB 187											0.94 (0.85-1.00)	0.58 (0.34-0.87)	0.83 (0.67-0.98)	0.83 (0.67-0.98)	0.87 (0.76-1.00)	0.89 (0.75-1.00)	0.54 (0.29-0.79)	0.21 (-0.08-0.50)	0.07 (-0.22-0.37)	0.50 (0.25-0.76)	0.86 (0.70-1.00)	0.88 (0.73-1.00)	0.91 (0.78-1.00)	0.84 (0.67-0.99)	0.84 (0.67-0.99)	
Σ PCB												0.65 (0.45-0.85)	0.79 (0.61-0.98)	0.80 (0.63-0.98)	0.93 (0.81-1.00)	0.92 (0.75-0.95)	0.55 (0.45-0.65)	0.01 (-0.29-0.31)	0.50 (0.25-0.76)	0.86 (0.71-1.00)	0.90 (0.78-1.00)	0.93 (0.82-1.00)	0.84 (0.68-1.00)	0.84 (0.68-1.00)	0.86 (0.71-1.00)	
α-HCH															0.51 (0.26-0.77)	0.51 (0.25-0.76)	0.78 (0.60-0.97)	0.56 (0.32-0.81)	0.35 (0.08-0.63)	0.77 (0.58-0.96)	0.61 (0.37-0.84)	0.55 (0.22-0.78)	0.52 (0.27-0.80)	0.58 (0.34-0.82)	0.59 (0.35-0.83)	
β-HCH																										
Σ HCH																										
Table S2. Intracompartmental correlations for breast milk.																										
oxy-Chl.																	1.00 (0.99-1.00)	0.44 (0.17-0.70)	0.00 (-0.30-0.30)	0.39 (0.12-0.67)	0.86 (0.70-1.00)	0.90 (0.77-1.00)	0.87 (0.73-1.00)	0.85 (0.72-1.00)	0.86 (0.75-1.00)	
cis-Chl.																		0.44 (0.17-0.70)	0.00 (-0.30-0.29)	0.40 (0.12-0.67)	0.86 (0.71-1.00)	0.96 (0.87-1.00)	0.87 (0.73-1.00)	0.86 (0.72-1.00)	0.88 (0.74-1.00)	
Pp'-DDE																			0.61 (0.38-0.85)	0.99 (0.96-1.00)	0.52 (0.27-0.77)	0.40 (0.09-0.78)	0.51 (0.26-0.77)	0.54 (0.29-0.79)	0.49 (0.22-0.74)	
Pp'-DDD																				0.72 (0.52-0.83)	0.35 (0.07-0.63)	0.16 (-0.12-0.46)	0.23 (-0.06-0.52)	0.23 (-0.06-0.52)	0.23 (-0.06-0.52)	
Pp'-DDT																				0.69 (-0.18-0.90)	0.11 (0.03-0.23)	0.03 (-0.19-0.40)	0.10 (-0.12-0.47)	0.11 (0.11-0.23)	0.10 (-0.18-0.40)	
Σ DDT																										
HCB																										
Mir.																										
tra-Non.																										
cis-Non.																										
Tox 50																										
Σ Tox																										

