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Supplementary Material

Variations in serum concentrations of selected organochlorines among delivering women of Argentina. The EMASAR Study

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Table S1. Personal characteristic of the study population by city of living and province of maternal birth (n = 636)

	Ushuaia natives (n = 61)				**Ushuaia migrated (n = 128)**				**Salta natives (n = 408)**				**Salta migrated (n = 38)**				
	n	*Mean or n (SD or %)*	*Median*	*min-max*	*n*	*Mean or n (SD or %)*	*Median*	*min-max*	*n*	*Mean or n (SD or %)*	*Median*	*min-max*	n	*Mean or n (SD or %)*	*Median*	*min-max*	*p-value*
Age	61	25.2 (6.1)	24.6	16-38	128	30.2 (6.2)	29.6	16-45	409	24.3 (6.1)	23.1	14-44	38	24.3 (6.5)	24.4	15-40	<0.001
Parity	61	1.7 (0.81)	1	1-4	128	1.95 (1.02)	2	1-7	409	2.2 (1.5)	2	1-8	38	1.9 (1.1)	2	1-6	0.262
para 1		31 (50.8)				48 (37.5)				187 (45.7)				17 (44.7)			
para 2		21 (34.4)				51 (39.8)				97 (23.7)				14 (36.8)			
para ≥3		9 (14.8)				29 (22.7)				125 (30.6)				7 (18.4)			
Previous breastfeeding, months	30	20.1 (14.9)	18	0-60	80	18.7 (20.7)	14	0-156	215	34.9 (30.9)	24	0-217	21	26 (17.9)	24	2-77	<0.001
Year of living current home	61	10.8 (9.5)	10	1-32	128	4.8 (5.7)	3	1-28	408	11.9 (9.7)	10	1-42	38	6.3 (6.5)	3.5	1-22	<0.001

Table S2. Detection frequencies of OCs in serum of delivering Argentinean women, by residence and maternal provinces of birthplace (n = 636)

	Living Ushuaia			Living Salta		
	Total	Ushuaia natives	Migrated	Total	Salta natives	Migrated
Compound[a]	*% ≥ LOD*[a]	*% ≥ LOD*[a]	*% ≥ LOD*[a]	*% ≥ LOD*[a]	*% ≥ LOD*[a]	*% ≥ LOD*[a]
PCB 118	64.8	47.5	71.9	79.0	78.7	81.6
PCB 138	97.4	98.4	96.9	97.1	96.8	100
PCB 153	94.2	93.4	98.4	94.2	94.1	94.7
p,p'-DDT	89.4	83.6	92.2	96.9	96.6	100
p,p'-DDE	98.9	98.4	99.2	100	100	100
p,p'-DDD	81.0	73.8	84.4	51.2	51.6	47.4
o,p'-DDT	66.1	63.9	67.2	15.9	16.9	5.3
o,p'-DDD	68.8	63.9	71.1	24.9	25.5	18.4
HCB	81.5	77.0	83.6	58.4	58.4	57.9
α-HCH	86.2	83.6	87.5	33.9	32.5	36.8
β-HCH	60.8	54.1	64.1	71.7	71.6	84.2

[a]For the full names of the compounds, see Section 2.2 of the text. For the LODs, see Table 1 of the text.

Table S3. Concentrations (μg/L) of OCs in serum samples of delivering Argentinean mothers (2011-2012)

	Ushuaia (n = 199)					Salta (n = 471)					
Compound	**GM**[a]	**AM**[a]	**Median**	**Min**	**Max**	**GM**[a]	**AM**[a]	**Median**	**Min**	**Max**	**p-value**[b]
PCB28	0.01	0.01	<LOD	<LOD	0.09	0.01	0.01	<LOD	<LOD	0.10	
PCB52	0.007	0.019	<LOD	<LOD	0.206	0.006	0.015	<LOD	<LOD	0.322	
PCB101	0.005	0.016	0.005	<LOD	0.137	0.001	0.003	<LOD	<LOD	0.089	
PCB118	0.02	0.04	0.02	<LOD	0.37	0.03	0.05	0.04	0.01	0.89	<0.001
PCB138	0.041	0.057	0.045	<LOD	0.259	0.037	0.058	0.040	0.002	0.934	0.206
PCB153	0.059	0.079	0.064	<LOD	0.349	0.047	0.068	0.051	0.008	0.789	0.001
PCB180	0.01	0.02	<LOD	<LOD	0.24	0.01	0.02	<LOD	<LOD	0.34	
p,p′-DDT	0.021	0.081	0.022	<LOD	10.2	0.041	0.074	0.037	<LOD	2.62	<0.001
p,p′-DDE	0.25	1.10	0.22	0.01	124	0.47	1.30	0.42	0.03	78.9	<0.001
p,p′-DDD	0.011	0.019	0.015	<LOD	0.370	0.003	0.007	0.004	<LOD	0.180	
o,p′-DDT	0.010	0.018	0.014	<LOD	0.080	0.003	0.006	<LOD	<LOD	0.239	
o,p′-DDE	0.01	0.02	<LOD	<LOD	0.12	0.01	0.01	<LOD	<LOD	0.31	
o,p′-DDD	0.015	0.025	0.019	<LOD	0.146	0.006	0.009	<LOD	<LOD	0.124	
∑DDT	0.39	1.29	0.33	0.06	135	0.58	1.45	0.50	0.06	80.9	<0.001
PeCB	0.005	0.008	<LOD	<LOD	0.067	--[c]	--[c]	<LOD	<LOD	0.038	
HCB	0.07	0.12	0.07	<LOD	2.70	0.04	0.05	0.04	<LOD	0.69	
α-HCH	0.029	0.049	0.032	<LOD	0.317	0.008	0.027	<LOD	<LOD	0.286	
β-HCH	0.04	0.14	0.06	<LOD	1.40	0.06	0.18	0.08	<LOD	3.10	<0.001
δ-HCH	0.01	0.02	<LOD	<LOD	0.25	0.02	0.03	<LOD	<LOD	0.39	
γ-HCH	--[c]	--[c]	<LOD	<LOD	0.13	--[c]	--[c]	<LOD	<LOD	0.11	

[a]For the full names of the compounds, see Section 2.2 of the text; [b]Mann Whitney test for compounds with a detection > 60%; [c]Detection frequency < 20%. For LODs, see Table 1 in the text.

Table S4. Concentrations (µg/kg lipid) of OCs in serum samples of delivering Argentinian mothers by maternal province of birth (n = 636; 2011-2012)[a]

		PCB 118	PCB 138	PCB 153	*p,p′*-DDT	*p,p′*-DDE	*p,p′*-DDD	*o,p′*-DDT	*o,p′*-DDD	HCB	*α*-HCH	*β*-HCH	Ushuaia (n = 189)[b]		
Ushuaia natives (n = 61)	**GM**	2.3	5.50	6.41	2.94	32.2	1.24	1.53	2.13	8.0	3.68	3.6			
	AM	5.1	7.62	9.34	4.51	71.5	2.26	2.60	4.03	10.5	6.44	9.2			
	Median	1.2	5.71	6.53	3.55	24.8	1.88	2.16	2.59	8.8	3.41	3.6	**DDE to DDT ratio**	**DDT to DDE ratio**	**o,p'-DDT to p,p'-DDT**
	Min	0.6	0.13	0.48	0.31	1.88	0.13	0.28	0.38	1.6	0.45	0.5			
	Max	66.9	37.2	40.2	16.3	516	10.5	11.3	26.2	30.4	33.9	59.0			
Ushuaia migrated (n = 128)	**GM**	3.5	6.91	10.7	3.39	41.7	1.83	1.64	2.36	11.2	4.70	7.5			
	AM	5.7	9.58	13.5	19.8	266	3.20	2.73	3.89	23.9	7.95	27.4	22.8	0.16	1.09
	Median	4.1	7.43	11.5	3.37	35.4	2.55	2.37	3.16	10.1	5.36	10.9	11.4	0.09	0.99
	Min	0.5	0.13	0.49	0.40	1.2	0.13	0.26	0.32	1.4	0.37	0.5	0.55	0	0.01
	Max	30.5	45.4	51.7	1950	23800	71.5	15.3	29.9	499	57.5	281	253	1.81	4.71
	p-value[c]		0.025	<0.001	0.856	0.085	0.055	0.784	0.493	0.09	0.143				
Salta natives (n = 409)	**GM**	5.7	6.35	8.18	6.78	80.3	0.60	0.57	0.98	6.1	1.41	9.6	Salta (n = 447)[b]		
	AM	9.2	10.1	11.8	12.7	240	1.21	0.99	1.63	9.2	4.66	31.8			
	Median	7.3	7.16	9.05	6.27	65.8	0.63	0.43	0.66	7.2	0.67	13.9	**DDE to DDT ratio**	**DDT to DDE ratio**	**o,p'-DDT to p,p'-DDT**
	Min	0.6	0.18	0.48	0.31	3.7	0.09	0.20	0.30	1.5	0.32	0.5			
	Max	163	172	144	334	12100	23.3	30.5	21.3	102	47.2	483			
Salta migrated (n = 38)	**GM**	6.0	6.86	7.57	7.02	78.2	0.57	0.44	0.82	5.9	1.61	15.4			
	AM	9.5	9.50	10.6	9.26	154	0.86	0.49	1.06	8.6	5.07	35.8	19.2	0.14	0.29
	Median	6.8	6.04	7.20	6.42	66.2	0.43	0.39	0.63	7.2	0.69	17.5	11.6	0.09	0.2
	Min	0.6	2.31	0.58	1.48	8.9	0.14	0.28	0.41	1.6	0.40	0.7	0.48	0	0.02
	Max	43.4	43.1	51.3	48.2	897	2.84	2.55	3.84	24.9	45.8	231	214	2.09	1.97
	p-value[c]	0.999	0.686	0.286	0.822	0.998						0.124			

[a]For the full names of the compounds, see Section 2.2 of the text; [b]For the o,p'-DDT to p,p'-DDT ratio, n = 114 in Ushuaia and n = 69 in Salta; [c]Mann Whitney test for compounds with a detection > 60%; natives versus migrated in each place.

Table S5. Fractional change in *p,p′*-DDD, *o,p′*-DDT, *o,p′*-DDD, HCB, and *α*-HCH serum concentrations (µg/kg lipid) per unit change, in place of maternal birth and adjusted for age and parity among delivering women from Ushuaia[a,b]

		***p,p′*-DDD**					***o,p′*-DDT**					***o,p′*-DDD**				
	n	**GM**	**Ratio**	**p-value**	**CI 95%**		**GM**	**Ratio**	**p-value**	**CI 95%**		**GM**	**Ratio**	**p-value**	**CI 95%**	
Ushuaia natives	61	1.27	0.71	0.112	0.46	1.08	1.55	0.95	0.757	0.66	1.37	2.08	0.87	0.486	0.60	1.28
Ushuaia migrated	128	1.80	1.0		1.00	1.00	1.63	ref.				2.38	ref.			
Age, year			1.0	0.828	0.97	1.03		0.99	0.662	0.96	1.02		0.99	0.575	0.96	1.02
Parity			1.09	0.354	0.90	1.31		1.17	0.125	0.95	1.49		1.05	0.604	0.85	1.25

		HCB					***α*-HCH**				
	n	**GM**	**Ratio**	**p-value**	**CI 95%**		**GM**	**Ratio**	**p-value**	**CI 95%**	
Ushuaia natives	61	9.53	0.92	0.552	0.69	1.24	3.79	0.82	0.285	0.57	1.19
Ushuaia migrated	128	10.3	ref.				4.62	ref.			1.0
Age, year			1.07	**<0.001**	1.04	1.10		1.01	0.657	0.98	1.04
Parity			0.78	**0.008**	0.65	0.90		1.05	0.547	0.87	1.23

[a]Univariate analyses of variance model based on detection frequencies above 60% in native and migrated groups, and bootstrapping with p-value and 95% CI based on 2000 samples; [b]For the full names of the compounds, see Section 2.2 of the text.

Tables S6 a-g Global comparisons of selected OCs for the 2004-2014 period

Table S6a. Worldwide comparisons of serum or plasma p,p'-DDE (µg/kg lipid) of pregnant or delivering women for the 2004-2014 period

Country	Region/area	p,p'-DDE	Unit	95% CI	Range	DDE:DDT ratio	Material	n	Period	Year	References
Argentina	Ushuaia	39	GM	33-46	0.5-23837	23	serum	199	2 days postpartum	2011	present study
	Salta	80	GM	72-90	4-12059	19	serum	471	2 days postpartum	2011-2012	present study
Bolivia	Santa Cruz de la Sierra	197	M			23	serum	200	delivery	2013	Arrebola et al., 2016
Peru	Trujillo	418	AM	255-686		19	serum	59	delivery	2004-2005	Adetona et al., 2013
South Africa	Indian Ocean, non-malaria	29	GM	25-33	8-343		plasma	117	delivery	2008	Channa et al., 2012
	Indian ocean, malaria	3840	GM	3008-4902	37-92559		plasma	91	delivery	2008	Channa et al., 2012
China	4 sites	204	M		<LOD-3194		serum	81	delivery	2010	Guo et al., 2014
Korea	4 sites	57	M				serum	105	delivery	2011	Kim et al., 2013
Caribbean	Belize	1165	GM	889-1526		9	serum	50	pregnancy	2008-2011	Forde et al., 2014
	Grenada	93	GM	71-122			serum	50	pregnancy	2008-2011	Forde et al., 2014
	Dominica	60	GM	46-80			serum	50	pregnancy	2008-2011	Forde et al., 2014
	St. Lucia	42	GM	35-55		13	serum	46	pregnancy	2008-2011	Forde et al., 2014
Mexico	10 sites	336	GM	295-382			plasma	240	3rd trimester	2005-2006	Adlard et al., 2014
Canada	4 sites	53	GM	48-58			plasma	103	1st trimester	2005-2006	Adlard et al., 2014
Canada	10 sites	56	GM	54-58	ND-5306		plasma	1935	1st trimester	2008-2011	Fisher et al., 2016
Spain	Catalonia, Sabadell	126	GM	118-135			serum	631	1st trimester	2004-2006	Ibarluzea et al., 2011
	Basque, Gipuzkoa	96	GM	90-102			serum	628	1st trimester	2006-2008	Ibarluzea et al., 2011
Italy	Brescia	127	GM	42-377			serum	70	delivery	2006	Bergonzi et al., 2009
Norway	Northern Norway	39	GM		11-351		serum	508	2nd trimester	2007-09	Veyhe et al., 2015
Iceland	Reykjavik	36	GM		12-139	26	plasma	33	3rd trimester	2009	AMAP 2015
Faroe Islands	Faroe Islands	131	GM		6-1517	20	plasma	500		2007-2009	AMAP 2015
Russia	Murmansk	102	GM		16-1221		plasma	50		2013-2014	AMAP 2015
Greenland	National, Inuit	131	GM		16-1300	32	plasma	194	2nd trimester	2011-2013	AMAP 2015, Long et.al., 2015
	North, Inuit	221	GM		18-990	29	plasma	15	2nd trimester	2011-2013	AMAP 2015, Long et.al., 2015
Canada Arctic	Nunavik, Inuit	123	GM		11-520		plasma	112		2012	AMAP 2015
Canada Arctic	Baffin, Inuit	130	GM	110-150	17-670		plasma	100	3rd trim/delivery	2005-2007	Curren et al., 2015
	Inuvik, Inuit	76	GM	59-98	ND-870		plasma	52	3rd trim/delivery	2005-2007	Curren et al., 2015
	Inuvik, Denets/Metis	35	GM	26-49	13-140		plasma	17	3rd trim/delivery	2005-2007	Curren et al., 2015
USA, Alaska	Yup`ik, Inuit	83	GM		14-373		plasma	156		2009-2012	AMAP 2015

AM, arithmetic mean; GM, geometric mean; LOD, limit of detection; M, median; ND, non-detected

Table S6b. Worldwide comparisons of serum or plasma p,p'-DDT (μg/kg lipid) of pregnant or delivering women for the 2004-2014 period

Country	Region/area	p,p'-DDT	Unit	95% CI	Range	Material	n	Period	Year	References
Argentina	Ushuaia	3.2	GM	2.8-3.7	0.3-1952	serum	199	2 days postpartum	2011	present study
	Salta	6.8	GM	6.3-7.5	0.3-334	serum	471	2 days postpartum	2011-2012	present study
Peru	Trujillo	29	AM	18-45		serum	44	delivery	2004-2005	Adetona et al., 2013
South Africa	Indian Ocean, non-malaria	7	GM	6-7	4-37	plasma	117	delivery	2008	Channa et al., 2012
	Indian ocean, malaria	2194	GM	1706-2823	8-21856	plasma	91	delivery	2008	Channa et al., 2012
China	4 cities	14.7	M		<LOD-362	serum	81	delivery	2010	Guo et al., 2014
Korea	4 cities	5.2	M			serum	105	delivery	2011	Kim et al., 2013
Carribean	Belize	125	GM	87-179		serum	50	pregnancy	2008-2011	Forde et al., 2014
	Dominica	4.8	GM	3.3-6.9		serum	50	pregnancy	2008-2011	Forde et al., 2014
	Grenada, St. Lucia	NA	GM	NA		serum	50+50	pregnancy	2008-2011	Forde et al., 2014
Mexico	10 sites	7.1	GM	NA-8.4		plasma	240	3rd trimester	2005-2006	Adlard et al., 2014
Canada	4 sites	NA	GM			plasma	103	1st trimester	2005-2006	Adlard et al., 2014
Canada	10 sites	NA	GM			plasma	1935	1st trimester	2008-2011	Fisher et al., 2016
Spain	Catalonia/Basque	NA	GM			serum	631	1st trimester	2004-2006	Ibarluzea et al., 2011
Italy	Brescia	NA	GM			serum	70	delivery	2006	Bergonzi et al., 2009
Norway	Northern Norway	NA	GM			serum	508	2nd trimester	2007-2009	Veyhe et al., 2015
Iceland	Reykjavik	1.4	GM		<1.3-5.7	plasma	33	3rd trimester	2009	AMAP 2015
Faroe Islands		7	GM		0.1-110	plasma	500		2007-2009	AMAP 2015
Russia	Murmansk Oblast	11	GM		1.3-376	plasma	50		2013-2014	AMAP 2015
Greenland	National	4.1	GM		2.0-68	plasma	194	2nd trimester	2011-2013	AMAP 2015, Long et.al., 2015
	North, Inuit	7.7	GM		2.5-35	plasma	15	2nd trimester	2011-2013	AMAP 2015, Long et.al., 2015
Canada Arctic	Nunavik, Inuit	4.4	GM		<LOD-33	plasma	112		2012	AMAP 2015
Canada Arctic	Baffin, Inuit	ND	GM	110-150	ND-18	plasma	22	3rd trim/delivery	2005-2007	Curren et al., 2014
	Inuvik, Inuit	ND	GM	ND	ND-11	plasma	18	3rd trim/delivery	2005-2007	Curren et al., 2014
	Inuvik, Denets/Metis	ND	GM	ND	ND	plasma	6	3rd trim/delivery	2005-2007	Curren et al., 2014
USA, Alaska	Yup`ik, Inuit	2.5	GM		<LOD-12	plasma	156		2007-2012	AMAP 2015

AM, arithmetic mean; GM, geometric mean; LOD, limit of detection; M, median; NA or ND, not reported due to high numbers of non-detected samples

Table S6c. Worldwide comparisons of serum or plasma HCB (μg/kg lipid) of pregnant or delivering women for the 2004-2014 period

Country	Region/area	HCB	Unit	95% CI	Range	Material	n	Period	Year	References
Argentina	Ushuaia	10	GM	8.7-11	1.4-499	serum	199	2 days postpartum	2011	present study
	Salta	5.9	GM	5.4-6.4	1.5-102	serum	471	2 days postpartum	2011-2012	present study
Peru	Trujillo	3	AM		2.4-3.8	serum	59	delivery	2005	Adetona et al., 2013
South Africa	Indian Ocean, non-malaria	NA	GM			plasma	117	delivery	2008	Channa et al., 2012
China	4 sites	71	M		<LOD-643	serum	81	delivery	2010	Guo et al., 2014
Korea	4 sites	9.5	M			serum	105	delivery	2011	Kim et al., 2013
Canada	10 sites	NA	GM			plasma	1935	1st trimester	2008-2011	Fisher et al., 2016
Caribbean	Bermuda	2.6	GM	2.3-3.0		serum	50	pregnancy	2008-2011	Forde et al., 2014
	St. Lucia	3.9	GM	3.4-4.6		serum	46	pregnancy	2008-2011	Forde et al., 2014
	Grenada	8.6	GM	7.4-10		serum	50	pregnancy	2008-2011	Forde et al., 2014
Spain	Catalonia, Sabadell	35	GM	33-38		serum	631	1st trimester	2004-2006	Ibarluzea et al., 2011
	Basque, Gipuzkoa	32	GM	30-34		serum	628	1st trimester	2006-2008	Ibarluzea et al., 2011
Italy	Brescia	20	GM	12-38		serum	70	delivery	2006	Bergonzi et al., 2009
Norway	Northern Norway	9.6	GM		3.5-53	serum	508	2nd trimester	2007-2009	Veyhe et al., 2015
Iceland	Reykjavik	20	GM		12-35	plasma	33	3rd trimester	2009	AMAP 2015
Faroe Islands		17	GM		3-116	plasma	500		2007-2009	AMAP 2015
Russia	Murmansk Oblast	18	GM		5.3-252	plasma	50		2013-2014	AMAP 2015
Greenland	National, Inuit	26	GM		5.8-170	plasma	194	2nd trimester	2011-2013	AMAP 2015, Long et.al., 2015
	North, Inuit	40	GM		5.8-130	plasma	15	2nd trimester	2011-2013	AMAP 2015, Long et.al., 2015
Canada Arctic	Nunavik, Inuit	18	GM		<LOD-110	plasma	112		2012	AMAP 2015
USA, Alaska	Yup`ik, Inuit	16	GM		2.7-99	plasma	156		2009-2012	AMAP 2015

AM, arithmetic mean; GM, geometric mean; LOD, limit of detection; M, median; NA, not reported due to high numbers of non-detected samples

Table S6d. Worldwide comparisons of serum or plasma β-HCH (μg/kg lipid) of pregnant or delivering women for the 2004-2013 period

Country	Region/area	β-HCH	Unit	95% CI	range	Material	n	Period	Year	References
Argentina	Ushuaia	6	GM	4.7-7.6	0.5-281	serum	199	2 days postpartum	2011	present study
	Salta	9.4	GM	8.0-11	0.5-483	serum	471	2 days postpartum	2011-12	present study
South Africa	Indian Ocean, non-malaria	NA	GM				117		2008	Channa et al., 2012
China	4 sites	68	M		<LOD-348	serum	81	delivery	2010	Guo et al., 2014
Korea	4 sites	7.6	M			serum	105	delivery	2011	Kim et al., 2013
Mexico	10 sites	8.3	GM	7.3-9.5		plasma	240	3rd trimester	2005-2006	Adlard et al., 2014
Canada	4 sites	2.1	GM	1.9-2.4		plasma	103	1st trimester	2005-2006	Adlard et al., 2014
Canada	10 sites	2.3	GM	2.2-2.4	ND-1108	plasma	1935	1st trimester	2008-2011	Fisher et al., 2016
Spain	Catalonia, Sabadell	30	GM	29-32		serum	631	1st trimester	2004-2006	Ibarluzea et al., 2011
	Basque, Gipuzkoa	12	GM	11-13		serum	628	1st trimester	2006-2008	Ibarluzea et al., 2011
Norway	Arctic	NA	GM			serum	508	2nd trimester	2007-2009	Veyhe et al., 2015
Faroe Islands		16.7	GM		2.0-110	plasma	500		2007-2009	AMAP 2015
Island	Reykjavik	7.1	GM		3.0-28	plasma	33	3rd trimester	2009	AMAP 2015
Russia	Murmansk Oblast	8.5	GM		0.8-146	plasma	50		2007-2009	AMAP 2015
Greenland	National, Inuit	3.8	GM		0.5-34	plasma	194	2nd trimester	2011-2013	AMAP 2015, Long et. al., 2015
Greenland	North, Inuit	6	GM		0.5-34	plasma	15	2nd trimester	2011-2013	AMAP 2015, Long et. al., 2015
Canada Arctic	Nunavik- Inuit	2.4	GM		<LOD-16	plasma	112		2012	AMAP 2015
USA, Alaska	Yup`ik - Inuit	3.6	GM		<LOD-37	plasma	156		2009-2012	AMAP 2015

AM, arithmetic mean, GM, geometric mean; LOD, limit of detection; M, median; NA or ND, not reported due to high numbers of non-detected samples

Table S6e. Worldwide comparisons of serum or plasma PCB 153 (µg/kg lipid) of pregnant or delivering women for the 2004-2014 period

Country	Region/area	PCB 153		95% CI	range	Material	n	Period	Year	References
Argentina	Ushuaia	9.1	GM	1.1-10	0.5-52	serum	199	2 days postpartum	2011	present study
	Salta	8.1	GM	7.4-8.9	0.5-144	serum	471	2 days postpartum	2011-2012	present study
Peru	Trujillo	9.3	AM	7.2-12		serum	59	delivery	2004-2005	Adetona et al., 2013
South Africa	Atlantic	3.2	GM	2.7-3.8	0.7-21	plasma	61		2008	Rollin et al., 2009
Korea (median)	4 sites	9.2	M			serum	105	delivery	2011	Kim et al., 2013
Mexico	10 sites	3.6	GM	3.3-4		plasma	240	3rd trimester	2005-2006	Adlard, 2014
Canada	4 sites	5.7	GM	5.1-6.3		plasma	103	1st trimester	2005-2006	Adlard, 2014
Canada	10 sites	7.3	GM		ND-26	plasma	1935	1st trimester	2008-2011	Fisher et al., 2016
Caribbean	St. Vincent/Grenadines	15	GM	13-18		serum	50	pregnancy	2008-2011	Forde et al., 2014
	Grenada	8.4	GM	7.1-9.9		serum	50	pregnancy	2008-2011	Forde et al., 2014
	Belize	1.5	GM	1.3-1.8		serum	50	pregnancy	2008-2011	Forde et al., 2014
Spain	Catalonia, Sabadell	31	GM	29-32		serum	631	1st trimester	2004-2006	Ibarluzea et al., 2011
	Basque, Gipuzkoa	50	GM	48-53		serum	628	1st trimester	2006-2008	Ibarluzea et al., 2011
Italy	Brescia	54	GM	21-216		serum	70	delivery	2006	Bergonzi et al., 2009
Norway	Northern Norway	25	GM		5.3-201	serum	508	2nd trimester	2007-2009	Veyhe et al., 2015
Faroe Islands		91	GM		1-694	plasma	500		2007-2009	AMAP 2015
Island	Reykjavik	34	GM		18-108	plasma	33	3rd trimester	2009	AMAP 2015
Russia	Murmansk Oblast	12	GM		1.3-57	plasma	50		2013-2014	AMAP 2015
Greenland	National, Inuit	61	GM		8.9-950	plasma	194	2nd trimester	2011-2013	AMAP 2015, Long et. al., 2015
	East, Inuit	99	GM		8.9-950	plasma	15	2nd trimester	2011-2013	AMAP 2015, Long et. al., 2015
Canada Arctic	Nunavik, Inuit	39	GM		2.4-230	plasma	112		2012	AMAP 2015
Canada Arctic	Baffin, Inuit	42	GM	36-50	6.2-280	plasma	100	3rdtrim/delivery	2005-2007	Curren et al., 2015
	Inuvik, Inuit	17	GM	ND-150	13-23	plasma	52	3rdtrim/delivery	2005-2007	Curren et al., 2015
	Inuvik, Denets/Metis	5.9	GM	ND-34	3.5-9.9	plasma	17	3rdtrim/delivery	2005-2007	Curren et al., 2015
USA, Alaska	Yup`ik, Inuit	15	GM		1.5-148	plasma	156		2009-2012	AMAP 2015

AM, arithmetic mean; GM, geometric mean; LOD; limit of detection; M, median; ND, non-detected

Table S6f. Worldwide comparisons of serum or plasma PCB 138 (µg/kg lipid) of pregnant or delivering women for the 2004-2014 period

Country	Region/area	PCB 138		95% CI	range	Material	n	Period	Year	References
Argentina	Ushuaia	6.3	GM	5.6-7.2	0.1-45	serum	199	2 days postpartum	2011	present study
	Salta	6.4	GM	5.8-7.0	0.2-172	serum	471	2 days postpartum	2011-2012	present study
Peru	Trujillo	6.5	AM	4.9-8.5		serum	59	delivery	2004-2005	Adetona et al., 2013
South Africa	Atlantic	3.6	GM	3.0-4.3	0.34-18	plasma	61		2008	Rollin et al., 2009
Korea	4 sites	4.6	M			serum	105	delivery	2011	Kim et al., 2013
Mexico	10 sites	2.4	GM	2.2-2.6		plasma	240	3rd trimester	2005-2006	Adlard, 2014
Canada	4 sites	3.7	GM	3.3-4.1		plasma	103	1st trimester	2005-2006	Adlard, 2014
Canada	10 sites	4.21	GM		ND-15	plasma	1935	1st trimester	2008-2011	Fisher et al., 2016
Caribbean	St. Vincent/Grenadines	8.5	GM	7.1-10		serum	50	pregnancy	2008-2011	Forde et al., 2014
	Grenada	4.6	GM	3.9-5.5		serum	50	pregnancy	2008-2011	Forde et al., 2014
	Belize	2.2	GM	1.8-2.6		serum	50	pregnancy	2008-2011	Forde et al., 2014
Spain	Catalonia, Sabadell	17	GM	16-17		serum	631	1st trimester	2004-2006	Ibarluzea et al., 2011
	Basque, Gipuzkoa	29	GM	28-31		serum	628	1st trimester	2006-2008	Ibarluzea et al., 2011
Italy	Brescia	35	GM	16-120		serum	70	delivery	2006	Bergonzi et al., 2009
Norway	Northern Norway	15	GM		2.8-118	serum	508	2nd trimester	2007-2009	Veyhe et al., 2015
Faroe Islands		54	GM		3-383	plasma	500		2007-2009	AMAP 2015
Island	Reykjavik	15	GM		6.0-60	plasma	33	3rd trimester	2009	AMAP 2015
Russia	Murmansk Oblast	9.2	GM		1.0-48.2	plasma	50		2013-2014	AMAP 2015
Greenland	National, Inuit	29	GM		4.0-320	plasma	194	2nd trimester	2011-2013	AMAP 2015, Long et. al., 2015
	East, Inuit	45	GM		4.8-180	plasma	15	2nd trimester	2011-2013	AMAP 2015, Long et. al., 2015
Canada Arctic	Nunavik, Inuit	17	GM		<LOD-77	plasma	112		2012	AMAP 2015
Canada Arctic	Baffin, Inuit	15	GM	3.5-77	13-18	plasma	100	3rd trim/delivery	2005-2007	Curren et al., 2015
	Inuvik, Inuit	8.6	GM	ND-99	6.5-11	plasma	52	3rd trim/delivery	2005-2007	Curren et al., 2015
	Inuvik, Denets/Metis	3.1	GM	ND-13	2.1-4.7	plasma	17	3rd trim/delivery	2005-2007	Curren et al., 2015
USA, Alaska	Yup`ik, Inuit	9.1	GM		1.0-78	plasma	156		2009-2012	AMAP 2015

AM, arithmetic mean; GM, geometric mean; LOD, limit of detection; M, median; ND, non-detected

Table S6g. Worldwide comparisons of serum or plasma PCB 118 (µg/kg lipid) of pregnant or delivering women for the 2004-2014 period

Country	Region/area	PCB 118		95% CI	range	Material	n	Period	Year	References
Argentina	Ushuaia	3.1	GM	2.7-3.6	0.5-67	serum	199	2 days postpartum	2011	present study
	Salta	5.7	GM	5.2-6.3	0.6-163	serum	471	2 days postpartum	2011-2012	present study
Peru	Trujillo	2.8	AM	2.2-3.7		serum	59	delivery	2004-2005	Adetona et al., 2013
South Africa	Atlantic	1.5	GM	1.2-1.7	0.3-2.9	plasma	61		2008	Rollin et al., 2009
Korea (median)	4 sites	2.3	M			serum	105	delivery	2011	Kim et al., 2013
Mexico	10 sites	NA	GM			plasma	240	3rd trimester	2005-2006	Adlard et al., 2014
Canada	4 sites	2.2	GM	1.9-2.4		plasma	103	1st trimester	2005-2006	Adlardet al., 2014
Canada	10 sites	2.4	GM		ND-6.8	plasma	1935	1st trimester	2008-2011	Fisher et al., 2016
Caribbean	St. Vincent/Grenadines	2.9	GM	2.4-3.4		serum	50	pregnancy	2008-2011	Forde et al., 2014
	Grenada	1.9	GM	1.6-2.2		serum	50	pregnancy	2008-2011	Forde et al., 2014
	Belize	NA	GM			serum	50	pregnancy	2008-2011	Forde et al., 2014
Italy	Brescia	11	GM	2-34		serum	70	delivery	2006	Bergonzi et al., 2009
Norway	Northern Norway	4.1	GM		1.0-38	serum	508	2nd trimester	2007-2009	Veyhe et al., 2015
Faroe Islands		15	GM		1-134	plasma	500		2007-2009	AMAP 2015
Island	Reykjavik	8.4	GM		4.7-18	plasma	33	3rd trimester	2009	AMAP 2015
Russia	Murmansk Oblast	26	GM		9.4-119	plasma	50		2013-2014	AMAP 2015
Greenland	National, Inuit	9.5	GM		1.5-100	plasma	194	2nd trimester	2011-2013	AMAP 2015, Long et. al., 2015
	East, Inuit	17	GM		2.4-63	plasma	15	2nd trimester	2011-2013	AMAP 2015, Long et. al., 2015
Canada Arctic	Baffin, Inuit	6.2	GM	5.3-7.1	1.8-38	plasma	100	3rdtrim/delivery	2005-2007	Curren et al., 2015
	Inuvik, Inuit	4.1	GM	3.1-5.3	ND-55	plasma	52	3rdtrim/delivery	2005-2007	Curren et al., 2015
	Inuvik, Denets/Metis	1.6	GM	1.2-2.2	ND-4.8	plasma	17	3rdtrim/delivery	2005-2007	Curren et al., 2015
USA, Alaska	Yup`ik, Inuit	3.4	GM		<LOD-28	plasma	156		2009-2012	AMAP 2015

AM, arithmetic mean; GM, geometric mean; LOD limit of detection; M, median; NA or ND, not reported due to high numbers of non-detected samples