Supplementary Appendix 1 Minimal detectable concentrations, intra- and interassay coefficients of variation for 20 human cytokines/chemokines using a MILLIPLEX MAP kit

Analyte	Lower LOD (pg/mL)	Intra-/interassay CV	Analyte	Lower LOD (pg/mL)	Intraassay CV
Eotaxin	4.0	(7.20%, 10.8%)	IL-2	1.0	(2.10%, 6.3%)
IFN-γ	0.8	(1.60%, 12.0%)	IL-4	4.5	(2.90%, 14.2%)
IL-10	1.1	(1.60%, 16.8%)	Il-6	0.9	(2.00%, 18.3%)
IL-12p40	7.4	(2.80%, 12.4%)	IL-8	0.4	(1.90%, 3.5%)
IL-12p70	0.6	(2.20%, 16.7%)	IP-10	8.6	(2.60%, 15.3%)
IL-17	0.7	(0.70%, 1.2%)	MCP-1	1.9	(1.50%, 7.9%)
IL-1Ra	8.3	(2.10%, 10.7%)	MIP-1α	2.9	(1.90%, 14.5%)
sIL-2Rα	11.2	(2.40%, 8.0%)	MIP-1β	3.0	(2.40%, 8.8%)
IL-1α	9.4	(3.30%, 12.8%)	TNF-α	0.7	(2.60%, 13.0%)
IL-1β	0.8	(2.30%, 6.7%)	VEGF	6.3	(3.70%, 10.4%)

Abbreviations: CV, coefficient of variation; IFN-γ, interferon gamma; IL, interleukin; IP-10, IFN-γ-inducible protein; LOD, limit of detection; MCP-1, monocyte chemoattractant protein-1; MIP-1α, macrophage inflammatory protein-1 α; MIP-1β, macrophage inflammatory protein-1 β; PRINCESA, Pregnancy Research on Inflammation, Nutrition, & City Environment: Systematic Analyses; sIL-2Rα, soluble IL-2 receptor α; TNF-α, tumor necrosis factor α; VEGF, vascular endothelial growth factor.

Supplementary Appendix 2 Distribution of visits by month of gestation, PRINCESA cohort, 2009 to 2014

Gestational month	Frequency
2	2
3	86
4	120
5	157
6	166
7	122
8	124
9	118
9+	7

Abbreviation: PRINCESA, Pregnancy Research on Inflammation, Nutrition, & City Environment: Systematic Analyses.

Supplementary Appendix 3 Percentage of cervicovaginal cytokine concentrations below the lower LOD and above the upper LOD[a] based on the manufacturer's manual, among 181[b] pregnant women in Mexico City, over entire pregnancy and range by month

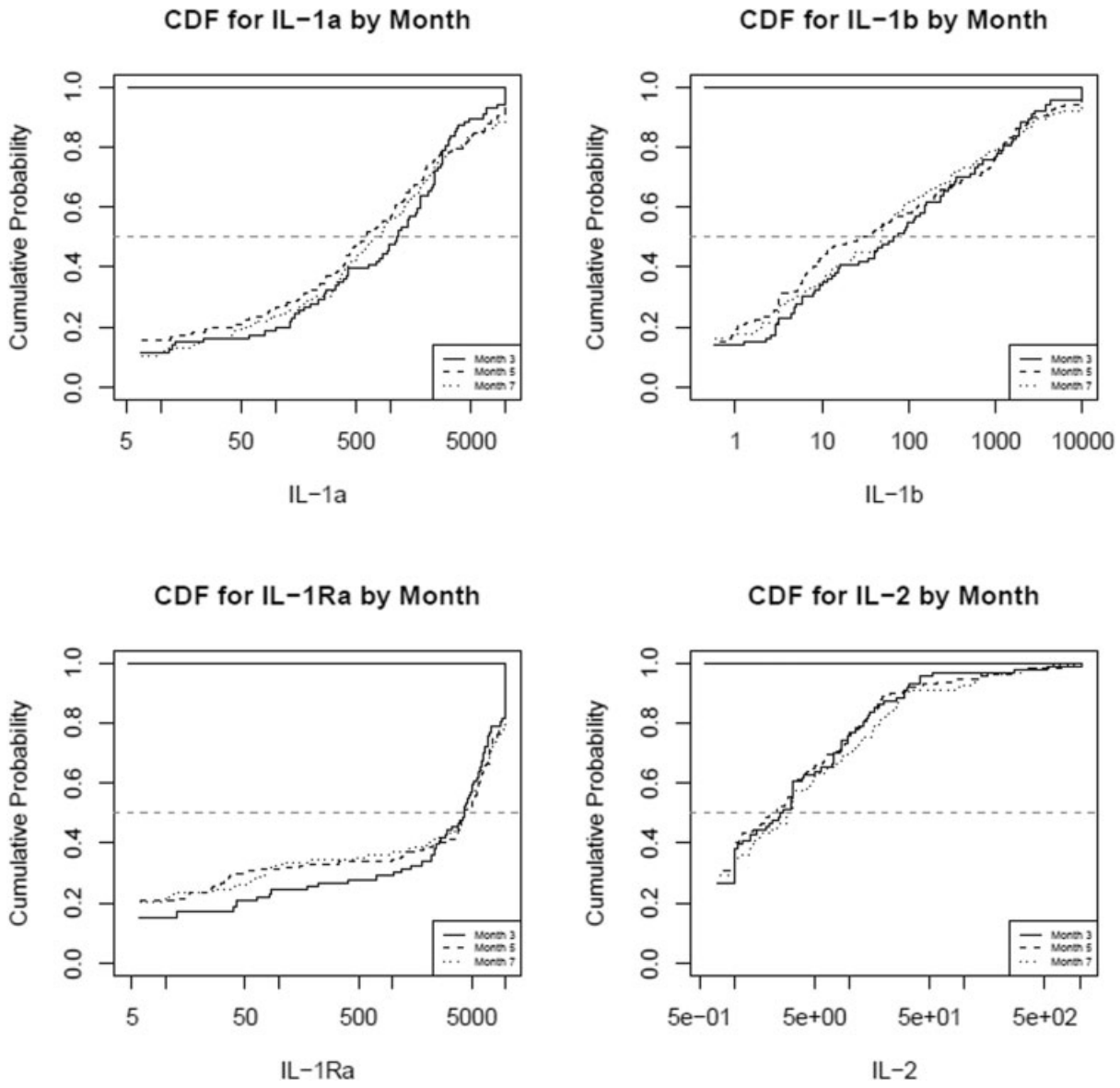
Cytokine	Lower LOD (pg/mL)	Percentage < lower LOD		Percentage > upper LOD	
		Overall	Range	Overall	Range
Anti-inflammatory					
IL-1Ra	8.3	19.7	15.1–28.6	19.6	15.8–25.0
IL-4[c]	4.5	41.9	35.4–50.7	0.8	1.4–2.1
IL-10	1.1	15.9	11.9–18.6	1.4	1.7–2.5
sIL-2Rα	11.2	33.6	26.3–44.1	0.9	0.8–1.7
IL-12p40	7.4	40.7	33.9–57.1	2.9	2.3–4.2
Proinflammatory					
IL-1α	9.4	13.0	9.7–42.9	9.8	5.8–11.5
IL-1β	0.8	13.0	5.9–16.4	5.9	4.2–7.6
IL-2	1	26.5	20.3–30.6	0	
IL-6	0.9	11.6	6.7–14.8	3.2	2.3–4.2
IL-8[c]	0.4	0		25.3	19.2–34.0
TNF-α	0.7	17.1	13.3–19.7	0	
IL-12p70[c]	0.6	21.5	12.5–32.3	0	
IL-17	0.7	28.3	19.2–32.9	0	
IP-10	8.6	3.8	0.8–5.7	6.9	5.7–8.2
IFN-γ[c]	0.8	29.2	10.2–51.6	0	
MCP-1	1.9	2.1	0.8–3.0	3.2	1.2–5.1
MIP-1α	2.9	16.3	10.8–28.6	2.5	1.7–3.4
MIP-1β	3	4.4	1.7–6.4	1.3	0.6–2.5
Eotaxin	4	11.9	7.6–16.3	0.4	0.6–0.8
VEGF	26.3	22.4	14.3–26.1	5.9	4.0–8.2

Abbreviations: CV, coefficient of variation; IFN-γ, interferon gamma; IL, interleukin; IP-10, IFN-γ-inducible protein; LOD, limit of detection; MCP-1, monocyte chemoattractant protein-1; MIP-1α, macrophage inflammatory protein-1 α; MIP-1β, macrophage inflammatory protein-1 β; PRINCESA, Pregnancy Research on Inflammation, Nutrition, & City Environment: Systematic Analyses; sIL-2Rα, soluble IL-2 receptor α; TNF-α, tumor necrosis factor α; VEGF, vascular endothelial growth factor.

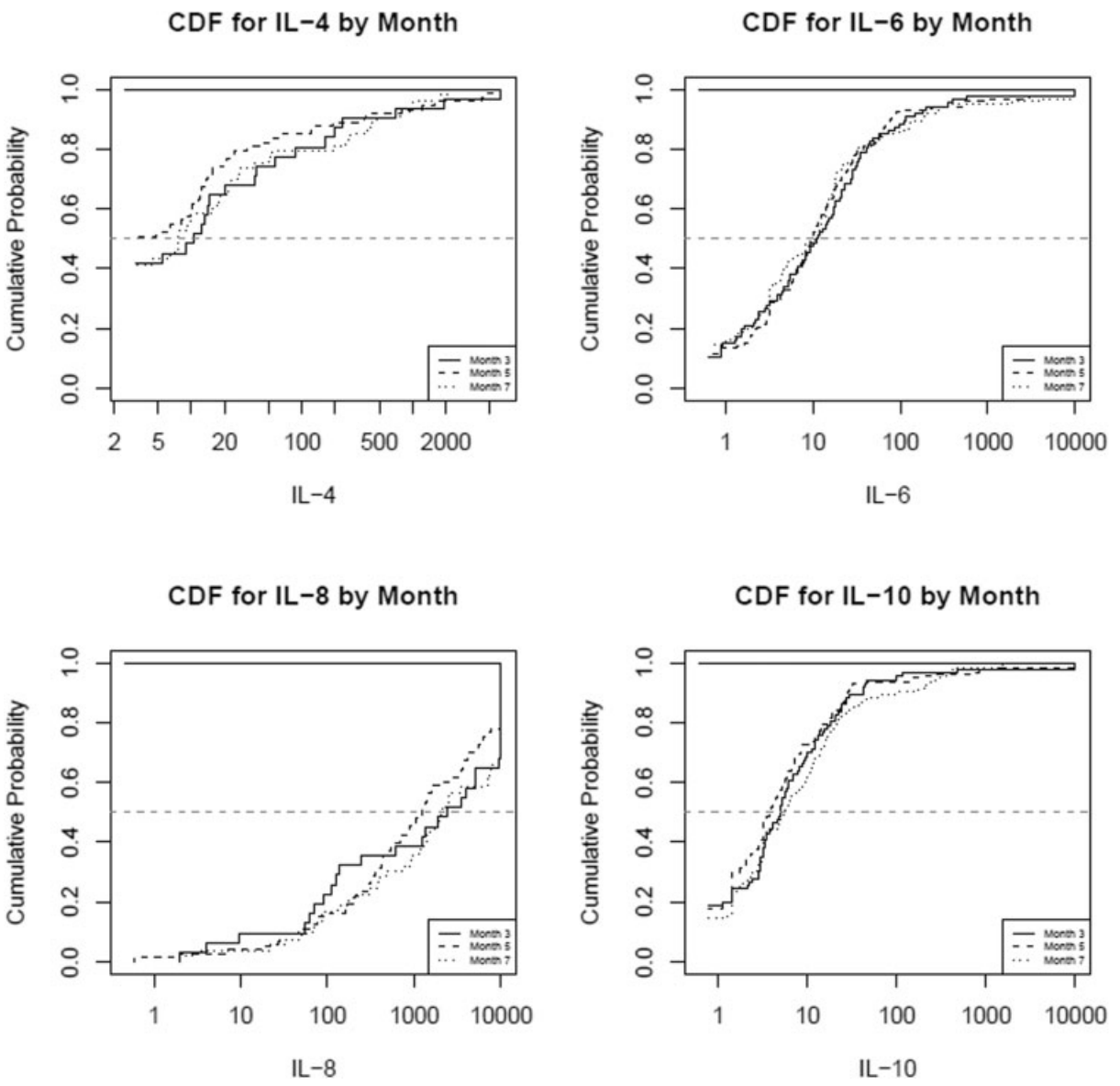
[a]All cytokine values more than 10,000 (pg/mL), the upper limit of detection, were assigned a value of 10,010.

[b]Sample size varied monthly and small *N*s at the end of pregnancy influenced the wide ranges. Number of visits ranged from 1 to 8.

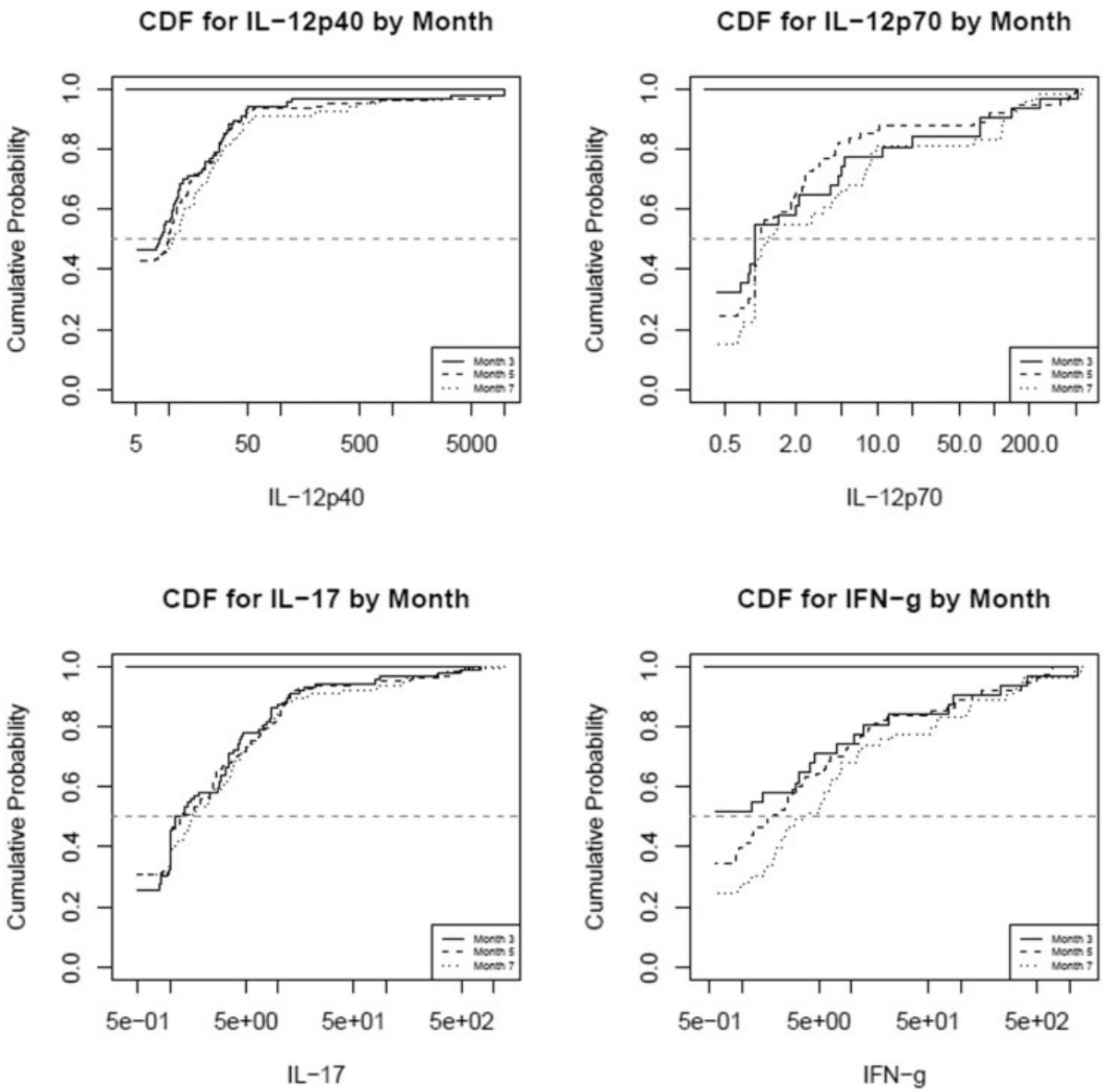
[c]More than 50% of observations missing.



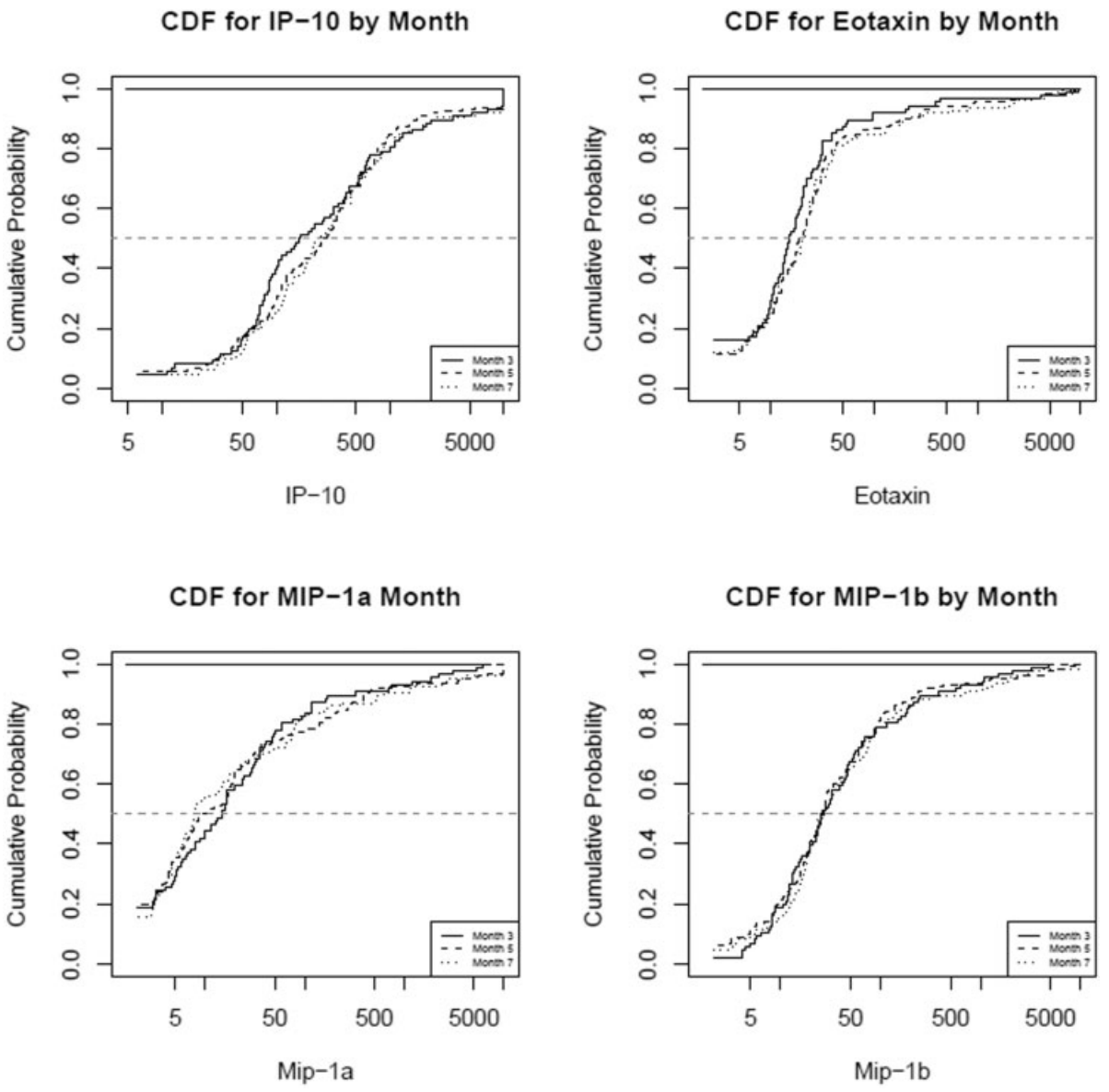
Supplementary Appendix 4A Cumulative distribution functions of cytokines (IL-1α, IL-1β, IL-1Ra, and IL-2) evaluated among term births at three time points during pregnancy among 181 Mexico City-based pregnant women from the PRINCESA cohort, 2009 to 2014. IL, interleukin; PRINCESA, Pregnancy Research on Inflammation, Nutrition, & City Environment: Systematic Analyses.



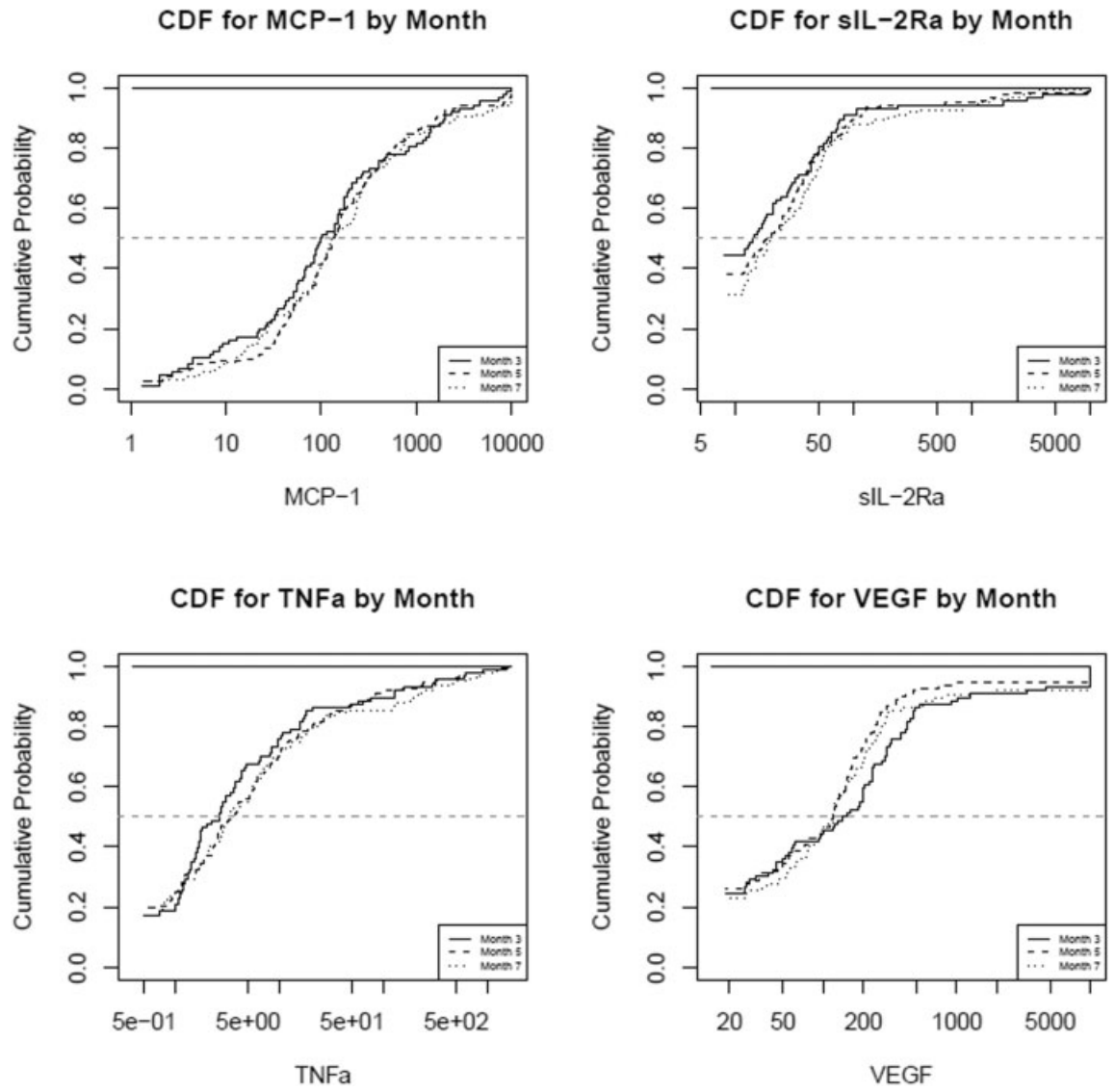
Supplementary Appendix 4B Cumulative distribution functions of cytokines (IL-4, IL-6, IL-8, and IL-10) evaluated among term births at three time points during pregnancy among 181 Mexico City-based pregnant women from the PRINCESA cohort, 2009 to 2014. IL, interleukin; PRINCESA, Pregnancy Research on Inflammation, Nutrition, & City Environment: Systematic Analyses.



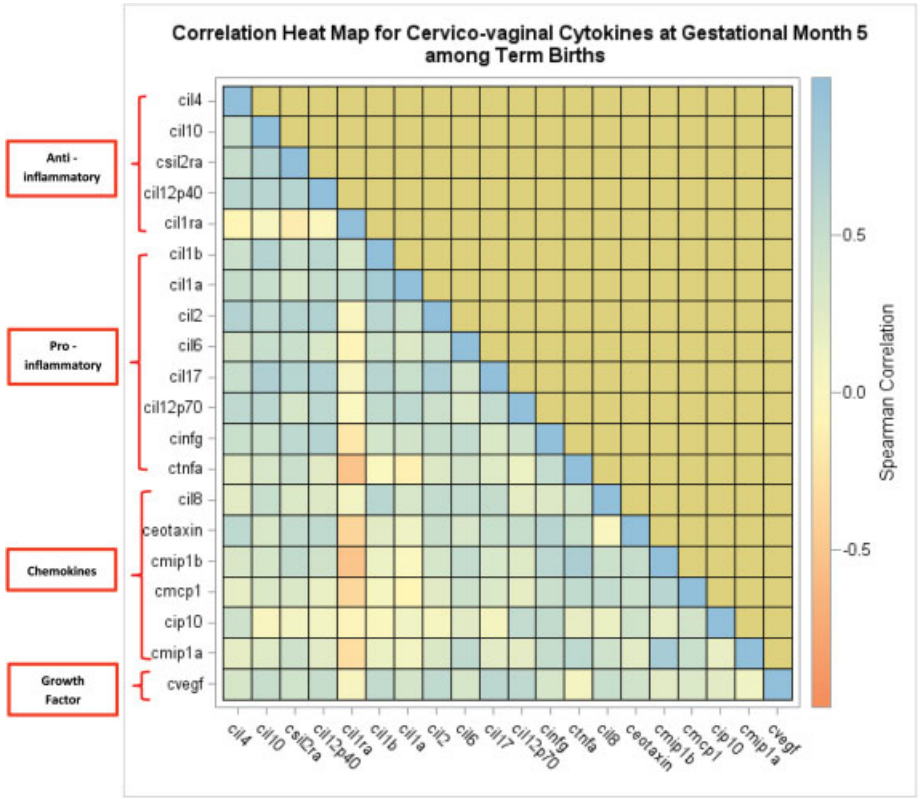
Supplementary Appendix 4C Cumulative distribution functions of cytokines (IL-12p40, IL-12p70, IL-17, and INF-γ) evaluated among term births at three time points during pregnancy among 181 Mexico City-based pregnant women from the PRINCESA cohort, 2009–2014. IL, interleukin; IFN-γ, interferon gamma; PRINCESA, Pregnancy Research on Inflammation, Nutrition, & City Environment: Systematic Analyses.



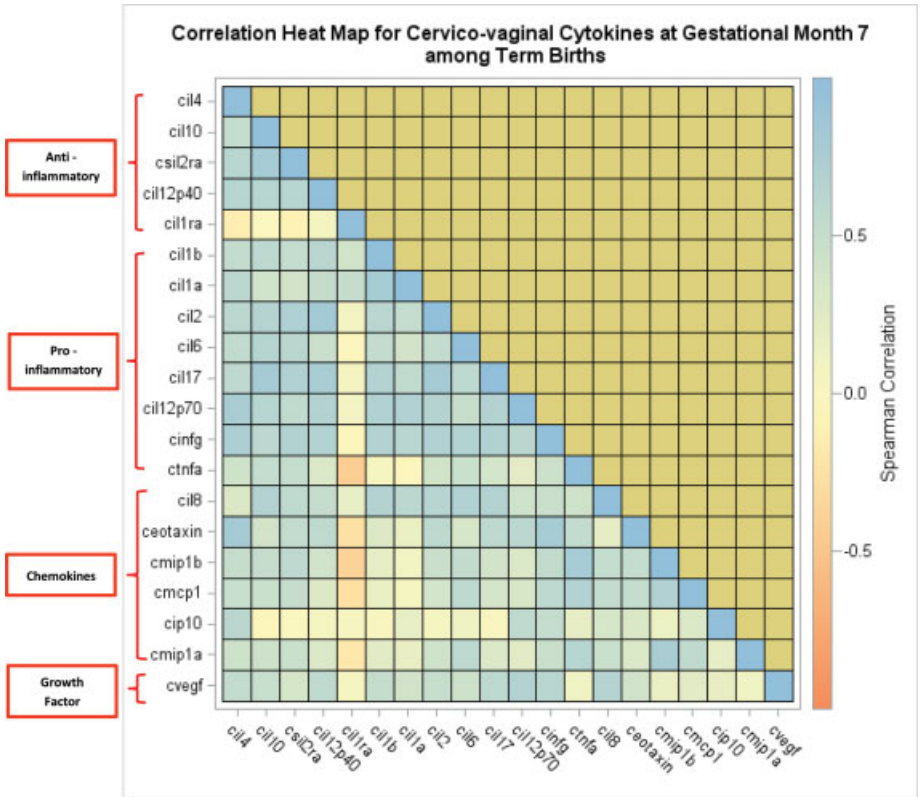
Supplementary Appendix 4D Cumulative distribution functions of cytokines (IP-10, eotaxin, MIP-1α, and MIP-1β) evaluated among term births at three time points during pregnancy among 181 Mexico City-based pregnant women from the PRINCESA cohort, 2009 to 2014. IP-10, IFN-γ-inducible protein; MIP-1α, macrophage inflammatory protein-1 α; MIP-1β, macrophage inflammatory protein-1 β; PRINCESA, Pregnancy Research on Inflammation, Nutrition, & City Environment: Systematic Analyses.



Supplementary Appendix 4E Cumulative distribution functions of cytokines (MCP-1, sIL-2Rα, TNF-α, and VEGF) evaluated among term births at three time points during pregnancy among 181 Mexico City-based pregnant women from the PRINCESA cohort, 2009 to 2014. MCP-1, monocyte chemoattractant protein-1; PRINCESA, Pregnancy Research on Inflammation, Nutrition, & City Environment: Systematic Analyses; sIL-2Rα, soluble IL-2 receptor α; TNF-α, tumor necrosis factor α; VEGF, vascular endothelial growth factor.



Supplementary Appendix 5A Heat map of Spearman's correlation coefficients for cervicovaginal cytokines at month 5 of gestation. Darker colors indicate stronger negative (tan) or positive (blue) correlations. The c-prefix denotes cervicovaginal cytokine.



Supplementary Appendix 5B Heat map of Spearman's correlation coefficients for cervicovaginal cytokines at month 7 of gestation. Darker colors indicate stronger negative (tan) or positive (blue) correlations. The c-prefix denotes cervicovaginal cytokine.

Supplementary Appendix 6 Spearman's correlation coefficients, corresponding number of observations, and *p*-values adjusted for false discovery rate[a] for pairs of cervicovaginal cytokines for months 3, 5, and 7 of gestation for term births in Mexico City from the PRINCESA cohort

Cytokine 1	Cytokine 2	Month 3			Month 5			Month 7		
		Rho	*N*	*p*-Value	Rho	*N*	*p*-Value	Rho	*N*	*p*-Value
IL-4	IL-10	0.52	31	0.00	0.48	73	0.00	0.55	53	0.00
IL-4	sIL-2Rα	0.71	31	0.00	0.51	73	0.00	0.65	53	0.00
IL-10	sIL-2Rα	0.66	86	0.00	0.67	157	0.00	0.79	122	0.00
IL-4	IL-12p40	0.71	31	0.00	0.64	73	0.00	0.66	53	0.00
IL-10	IL-12p40	0.65	86	0.00	0.65	157	0.00	0.66	122	0.00
sIL-2Rα	IL-12p40	0.79	86	0.00	0.67	157	0.00	0.66	122	0.00
IL-4	IL-1Ra	0.25	31	0.20	−0.09	73	0.49	−0.14	53	0.36
IL-10	IL-1Ra	−0.08	86	0.53	0.06	157	0.52	0.00	122	0.97
sIL-2Rα	IL-1Ra	−0.05	86	0.67	−0.15	157	0.07	−0.09	122	0.34
IL-12p40	IL-1Ra	0.12	86	0.29	−0.01	157	0.88	0.09	122	0.33
IL-4	IL-1b	0.64	31	0.00	0.47	73	0.00	0.55	53	0.00
IL-10	IL-1b	0.60	86	0.00	0.67	157	0.00	0.61	122	0.00
sIL-2Rα	IL-1b	0.62	86	0.00	0.48	157	0.00	0.55	122	0.00
IL-12p40	IL-1b	0.77	86	0.00	0.63	157	0.00	0.64	122	0.00
IL-1Ra	IL-1b	0.33	86	0.00	0.37	157	0.00	0.42	122	0.00
IL-4	IL-1a	0.71	31	0.00	0.52	73	0.00	0.63	53	0.00
IL-10	IL-1a	0.44	86	0.00	0.51	157	0.00	0.44	122	0.00
sIL-2Rα	IL-1a	0.41	86	0.00	0.38	157	0.00	0.41	122	0.00
IL-12p40	IL-1a	0.64	86	0.00	0.52	157	0.00	0.54	122	0.00
IL-1Ra	IL-1a	0.43	86	0.00	0.51	157	0.00	0.52	122	0.00
IL-1b	IL-1a	0.80	86	0.00	0.81	157	0.00	0.81	122	0.00
IL-4	IL-2	0.66	31	0.00	0.69	73	0.00	0.63	53	0.00
IL-10	IL-2	0.64	86	0.00	0.62	157	0.00	0.68	122	0.00
sIL-2Rα	IL-2	0.74	86	0.00	0.67	157	0.00	0.73	122	0.00
IL-12p40	IL-2	0.84	86	0.00	0.71	157	0.00	0.84	122	0.00
IL-1Ra	IL-2	0.03	86	0.77	0.04	157	0.61	0.11	122	0.27
IL-1b	IL-2	0.66	86	0.00	0.64	157	0.00	0.64	122	0.00
IL-1a	IL-2	0.52	86	0.00	0.45	157	0.00	0.54	122	0.00
IL-4	IL-6	0.25	31	0.21	0.41	73	0.00	0.58	53	0.00
IL-10	IL-6	0.53	86	0.00	0.50	157	0.00	0.67	122	0.00
sIL-2Rα	IL-6	0.41	86	0.00	0.48	157	0.00	0.64	122	0.00
IL-12p40	IL-6	0.50	86	0.00	0.36	157	0.00	0.47	122	0.00
IL-1Ra	IL-6	0.06	86	0.65	−0.05	157	0.55	−0.03	122	0.78
IL-1b	IL-6	0.51	86	0.00	0.46	157	0.00	0.56	122	0.00
IL-1a	IL-6	0.39	86	0.00	0.30	157	0.00	0.41	122	0.00
IL-2	IL-6	0.50	86	0.00	0.45	157	0.00	0.55	122	0.00
IL-4	IL-17	0.75	31	0.00	0.51	72	0.00	0.60	51	0.00
IL-10	IL-17	0.73	86	0.00	0.74	156	0.00	0.80	120	0.00
sIL-2Rα	IL-17	0.75	86	0.00	0.66	156	0.00	0.72	120	0.00
IL-12p40	IL-17	0.73	86	0.00	0.73	156	0.00	0.78	120	0.00
IL-1Ra	IL-17	0.05	86	0.66	0.07	156	0.42	0.11	120	0.26

(*Continued*)

Supplementary Appendix 6 (*Continued*)

Cytokine 1	Cytokine 2	Month 3			Month 5			Month 7		
		Rho	*N*	*p*-Value	Rho	*N*	*p*-Value	Rho	*N*	*p*-Value
IL-1b	IL-17	0.62	86	0.00	0.65	156	0.00	0.70	120	0.00
IL-1a	IL-17	0.45	86	0.00	0.49	156	0.00	0.57	120	0.00
il2	IL-17	0.73	86	0.00	0.76	156	0.00	0.82	120	0.00
IL-6	IL-17	0.40	86	0.00	0.42	156	0.00	0.60	120	0.00
IL-4	IL-12p70	0.67	31	0.00	0.60	73	0.00	0.78	53	0.00
IL-10	IL-12p70	0.52	31	0.00	0.63	73	0.00	0.66	53	0.00
sIL-2Rα	IL-12p70	0.73	31	0.00	0.37	73	0.00	0.57	53	0.00
IL-12p40	IL-12p70	0.83	31	0.00	0.62	73	0.00	0.70	53	0.00
IL-1Ra	IL-12p70	0.15	31	0.47	0.01	73	0.91	0.12	53	0.42
IL-1b	IL-12p70	0.66	31	0.00	0.57	73	0.00	0.72	53	0.00
IL-1a	IL-12p70	0.75	31	0.00	0.60	73	0.00	0.72	53	0.00
IL-2	IL-12p70	0.60	31	0.00	0.47	73	0.00	0.67	53	0.00
IL-6	IL-12p70	0.32	31	0.10	0.34	73	0.00	0.51	53	0.00
IL-17	IL-12p70	0.78	31	0.00	0.56	72	0.00	0.70	51	0.00
IL-4	TNF-α	0.09	31	0.66	0.26	73	0.03	0.44	53	0.00
IL-10	TNF-α	0.60	86	0.00	0.36	157	0.00	0.54	122	0.00
sIL-2Rα	TNF-α	0.43	86	0.00	0.48	157	0.00	0.53	122	0.00
IL-12p40	TNF-α	0.36	86	0.00	0.28	157	0.00	0.34	122	0.00
IL-1Ra	TNF-α	−0.43	86	0.00	−0.51	157	0.00	−0.42	122	0.00
IL-1b	TNF-α	0.24	86	0.04	0.02	157	0.84	0.07	122	0.44
IL-1a	TNF-α	0.09	86	0.45	−0.11	157	0.17	−0.03	122	0.78
IL-2	TNF-α	0.47	86	0.00	0.31	157	0.00	0.42	122	0.00
IL-6	TNF-α	0.53	86	0.00	0.41	157	0.00	0.49	122	0.00
IL-17	TNF-α	0.45	86	0.00	0.29	156	0.00	0.41	120	0.00
IL-12p70	TNF-α	0.20	31	0.31	0.17	73	0.17	0.25	53	0.08
IL-4	IL-8	0.34	31	0.08	0.27	73	0.03	0.32	53	0.02
IL-10	IL-8	0.70	31	0.00	0.51	73	0.00	0.69	53	0.00
sIL-2Rα	IL-8	0.49	31	0.01	0.33	73	0.01	0.59	53	0.00
IL-12p40	IL-8	0.44	31	0.02	0.31	73	0.01	0.52	53	0.00
IL-1Ra	IL-8	0.13	31	0.53	0.11	73	0.38	0.22	53	0.13
IL-1b	IL-8	0.68	31	0.00	0.64	73	0.00	0.69	53	0.00
IL-1a	IL-8	0.46	31	0.01	0.36	73	0.00	0.64	53	0.00
IL-2	IL-8	0.41	31	0.03	0.55	73	0.00	0.65	53	0.00
IL-6	IL-8	0.72	31	0.00	0.55	73	0.00	0.72	53	0.00
IL-17	IL-8	0.55	31	0.00	0.53	72	0.00	0.70	51	0.00
IL-12p70	IL-8	0.38	31	0.04	0.24	73	0.05	0.44	53	0.00
TNF-α	IL-8	0.56	31	0.00	0.42	73	0.00	0.44	53	0.00
IL-4	Eotaxin	0.59	31	0.00	0.60	73	0.00	0.81	53	0.00
IL-10	Eotaxin	0.42	86	0.00	0.36	157	0.00	0.42	122	0.00
sIL-2Rα	Eotaxin	0.67	86	0.00	0.55	157	0.00	0.55	122	0.00
IL-12p40	Eotaxin	0.61	86	0.00	0.58	157	0.00	0.59	122	0.00
IL-1Ra	Eotaxin	−0.14	86	0.23	−0.36	157	0.00	−0.26	122	0.00

Supplementary Appendix 6 (*Continued*)

Cytokine 1	Cytokine 2	Month 3			Month 5			Month 7		
		Rho	*N*	*p*-Value	Rho	*N*	*p*-Value	Rho	*N*	*p*-Value
IL-1b	Eotaxin	0.45	86	0.00	0.26	157	0.00	0.30	122	0.00
IL-1a	Eotaxin	0.32	86	0.00	0.16	157	0.06	0.19	122	0.04
IL-2	Eotaxin	0.67	86	0.00	0.47	157	0.00	0.60	122	0.00
IL-6	Eotaxin	0.31	86	0.01	0.36	157	0.00	0.37	122	0.00
IL-17	Eotaxin	0.62	86	0.00	0.49	156	0.00	0.60	120	0.00
IL-12p70	Eotaxin	0.74	31	0.00	0.52	73	0.00	0.63	53	0.00
TNF-α	Eotaxin	0.46	86	0.00	0.50	157	0.00	0.56	122	0.00
IL-8	Eotaxin	0.24	31	0.24	0.04	73	0.77	0.24	53	0.10
IL-4	MIP-1β	0.11	31	0.59	0.35	73	0.00	0.52	53	0.00
IL-10	MIP-1β	0.48	86	0.00	0.38	157	0.00	0.53	122	0.00
sIL-2Rα	MIP-1β	0.45	86	0.00	0.57	157	0.00	0.60	122	0.00
IL-12p40	MIP-1β	0.45	86	0.00	0.43	157	0.00	0.42	122	0.00
IL-1Ra	MIP-1β	−0.16	86	0.19	−0.52	157	0.00	−0.39	122	0.00
IL-1b	MIP-1β	0.44	86	0.00	0.17	157	0.05	0.22	122	0.02
IL-1a	MIP-1β	0.28	86	0.01	0.03	157	0.76	0.11	122	0.26
IL-2	MIP-1β	0.45	86	0.00	0.38	157	0.00	0.49	122	0.00
IL-6	MIP-1β	0.67	86	0.00	0.54	157	0.00	0.57	122	0.00
IL-17	MIP-1β	0.33	86	0.00	0.36	156	0.00	0.41	120	0.00
IL-12p70	MIP-1β	0.33	31	0.09	0.30	73	0.01	0.34	53	0.02
TNF-α	MIP-1β	0.69	86	0.00	0.76	157	0.00	0.79	122	0.00
IL-8	MIP-1β	0.61	31	0.00	0.47	73	0.00	0.54	53	0.00
Eotaxin	MIP-1β	0.29	86	0.01	0.52	157	0.00	0.54	122	0.00
IL-4	MCP-1	0.03	31	0.88	0.22	73	0.07	0.50	53	0.00
IL-10	MCP-1	0.26	86	0.02	0.33	157	0.00	0.49	122	0.00
sIL-2Rα	MCP-1	0.27	86	0.02	0.34	157	0.00	0.53	122	0.00
IL-12p40	MCP-1	0.15	86	0.20	0.20	157	0.02	0.31	122	0.00
IL-1Ra	MCP-1	−0.11	86	0.33	−0.34	157	0.00	−0.28	122	0.00
IL-1b	MCP-1	0.15	86	0.21	0.09	157	0.31	0.19	122	0.04
IL-1a	MCP-1	0.02	86	0.88	−0.07	157	0.40	0.09	122	0.37
IL-2	MCP-1	0.24	86	0.04	0.28	157	0.00	0.40	122	0.00
IL-6	MCP-1	0.58	86	0.00	0.46	157	0.00	0.60	122	0.00
IL-17	MCP-1	0.17	86	0.16	0.33	156	0.00	0.39	120	0.00
IL-12p70	MCP-1	0.06	31	0.78	0.24	73	0.05	0.37	53	0.01
TNF-α	MCP-1	0.51	86	0.00	0.57	157	0.00	0.70	122	0.00
IL-8	MCP-1	0.70	31	0.00	0.55	73	0.00	0.56	53	0.00
Eotaxin	MCP-1	0.26	86	0.02	0.47	157	0.00	0.54	122	0.00
MIP-1β	MCP-1	0.63	86	0.00	0.65	157	0.00	0.72	122	0.00
IL-4	IP-10	0.59	31	0.00	0.46	73	0.00	0.64	53	0.00
IL-10	IP-10	−0.05	86	0.67	0.04	157	0.62	−0.03	122	0.75
sIL-2Rα	IP-10	0.08	86	0.52	0.11	157	0.18	0.01	122	0.89
IL-12p40	IP-10	0.13	86	0.27	0.12	157	0.15	0.08	122	0.40
IL-1Ra	IP-10	0.17	86	0.14	−0.05	157	0.57	0.07	122	0.47

(*Continued*)

Supplementary Appendix 6 (*Continued*)

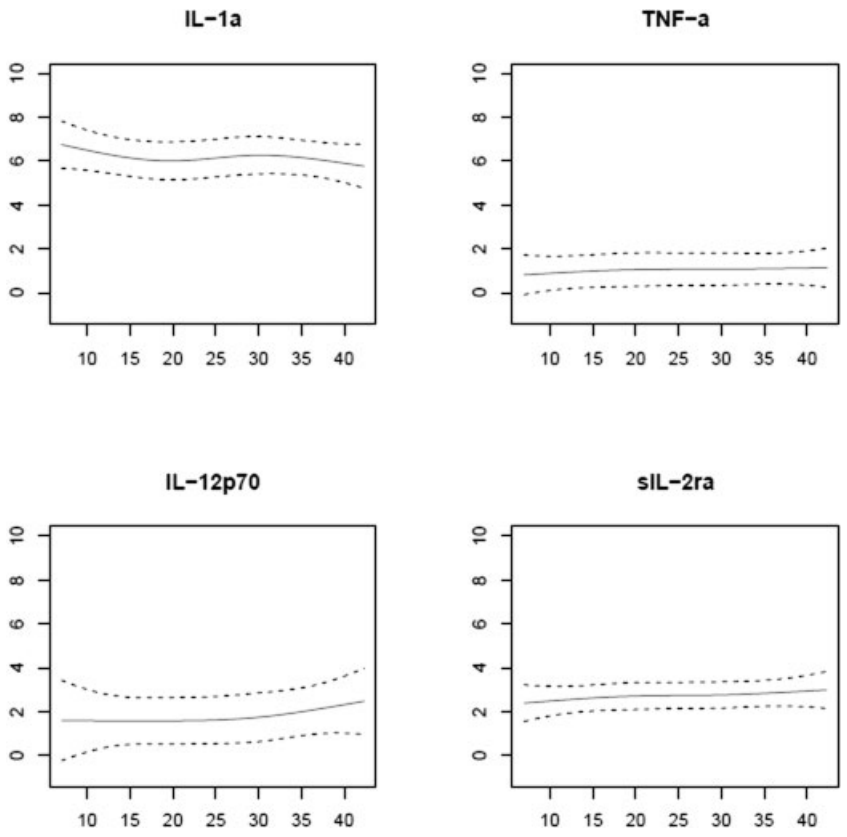
Cytokine 1	Cytokine 2	Month 3			Month 5			Month 7		
		Rho	*N*	*p*-Value	Rho	*N*	*p*-Value	Rho	*N*	*p*-Value
IL-1b	IP-10	0.05	86	0.70	0.03	157	0.74	0.04	122	0.65
IL-1a	IP-10	0.17	86	0.16	0.14	157	0.10	0.22	122	0.02
IL-2	IP-10	0.06	86	0.65	0.09	157	0.31	0.10	122	0.30
IL-6	IP-10	0.27	86	0.02	0.26	157	0.00	0.15	122	0.11
IL-17	IP-10	0.04	86	0.73	0.09	156	0.28	0.04	120	0.65
IL-12p70	IP-10	0.61	31	0.00	0.55	73	0.00	0.59	53	0.00
TNF-α	IP-10	0.04	86	0.74	0.21	157	0.01	0.22	122	0.02
IL-8	IP-10	0.42	31	0.03	0.20	73	0.11	0.38	53	0.01
Eotaxin	IP-10	0.33	86	0.00	0.44	157	0.00	0.35	122	0.00
MIP-1β	IP-10	0.17	86	0.16	0.23	157	0.00	0.17	122	0.07
MCP-1	IP-10	0.35	86	0.00	0.41	157	0.00	0.33	122	0.00
IL-4	IFN-γ	0.54	31	0.00	0.49	73	0.00	0.75	53	0.00
IL-10	IFN-γ	0.56	31	0.00	0.47	73	0.00	0.62	53	0.00
sIL-2Rα	IFN-γ	0.67	31	0.00	0.61	73	0.00	0.71	53	0.00
IL-12p40	IFN-γ	0.82	31	0.00	0.68	73	0.00	0.71	53	0.00
IL-1Ra	IFN-γ	−0.05	31	0.78	−0.19	73	0.11	−0.03	53	0.84
IL-1b	IFN-γ	0.67	31	0.00	0.40	73	0.00	0.70	53	0.00
IL-1a	IFN-γ	0.60	31	0.00	0.42	73	0.00	0.65	53	0.00
IL-2	IFN-γ	0.79	31	0.00	0.51	73	0.00	0.72	53	0.00
IL-6	IFN-γ	0.55	31	0.00	0.56	73	0.00	0.71	53	0.00
IL-17	IFN-γ	0.61	31	0.00	0.32	72	0.01	0.72	51	0.00
IL-12p70	IFN-γ	0.76	31	0.00	0.45	73	0.00	0.64	53	0.00
TNF-α	IFN-γ	0.38	31	0.05	0.54	73	0.00	0.47	53	0.00
IL-8	IFN-γ	0.40	31	0.03	0.31	73	0.01	0.49	53	0.00
Eotaxin	IFN-γ	0.83	31	0.00	0.65	73	0.00	0.79	53	0.00
MIP-1β	IFN-γ	0.54	31	0.00	0.62	73	0.00	0.57	53	0.00
MCP-1	IFN-γ	0.25	31	0.21	0.49	73	0.00	0.60	53	0.00
IP-10	IFN-γ	0.64	31	0.00	0.57	73	0.00	0.54	53	0.00
IL-4	MIP-1α	-0.05	31	0.78	0.24	73	0.05	0.46	53	0.00
IL-10	MIP-1α	0.41	86	0.00	0.29	157	0.00	0.46	122	0.00
sIL-2Rα	MIP-1α	0.31	86	0.01	0.46	157	0.00	0.50	122	0.00
IL-12p40	MIP-1α	0.36	86	0.00	0.26	157	0.00	0.34	122	0.00
IL-1Ra	MIP-1α	−0.09	86	0.46	−0.29	157	0.00	−0.20	122	0.04
IL-1b	MIP-1α	0.38	86	0.00	0.18	157	0.03	0.27	122	0.00
IL-1a	MIP-1α	0.29	86	0.01	0.12	157	0.15	0.21	122	0.03
IL-2	MIP-1α	0.40	86	0.00	0.32	157	0.00	0.45	122	0.00
IL-6	MIP-1α	0.73	86	0.00	0.58	157	0.00	0.60	122	0.00
IL-17	MIP-1α	0.26	86	0.02	0.27	156	0.00	0.33	120	0.00
IL-12p70	MIP-1α	0.25	31	0.21	0.25	73	0.04	0.26	53	0.07
TNF-α	MIP-1α	0.55	86	0.00	0.61	157	0.00	0.66	122	0.00
IL-8	MIP-1α	0.59	31	0.00	0.44	73	0.00	0.49	53	0.00
Eotaxin	MIP-1α	0.20	86	0.08	0.26	157	0.00	0.34	122	0.00

Supplementary Appendix 6 (*Continued*)

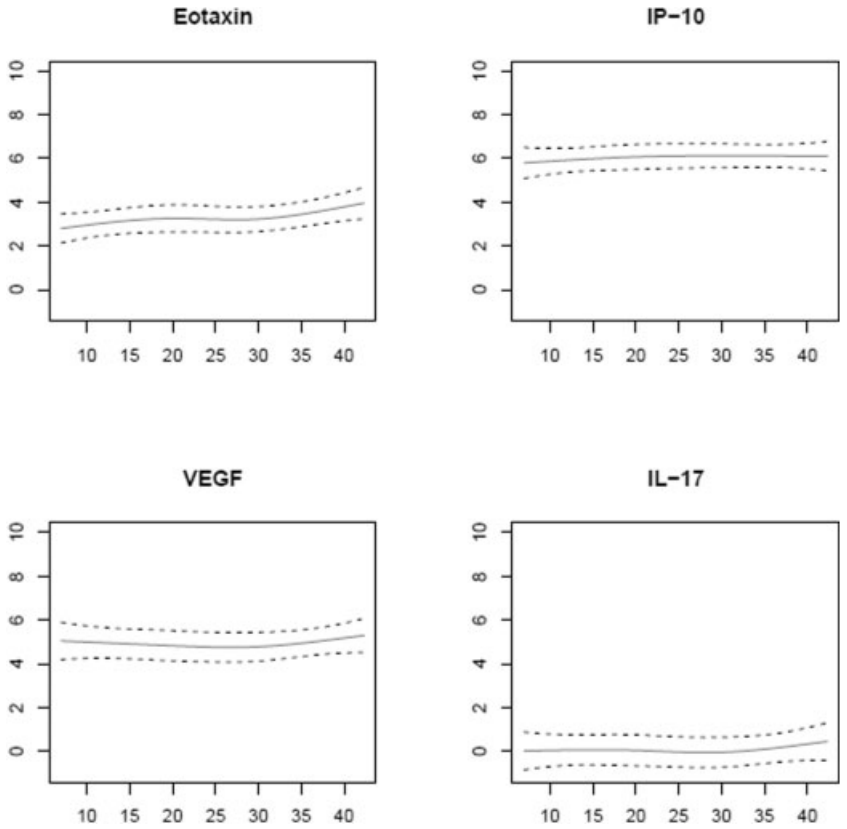
Cytokine 1	Cytokine 2	Month 3			Month 5			Month 7		
		Rho	*N*	*p*-Value	Rho	*N*	*p*-Value	Rho	*N*	*p*-Value
MIP-1β	MIP-1α	0.83	86	0.00	0.79	157	0.00	0.78	122	0.00
MCP-1	MIP-1α	0.56	86	0.00	0.50	157	0.00	0.58	122	0.00
IP-10	MIP-1α	0.13	86	0.28	0.21	157	0.01	0.22	122	0.02
IFN-γ	MIP-1α	0.37	31	0.05	0.52	73	0.00	0.48	53	0.00
IL-4	VEGF	0.66	31	0.00	0.39	73	0.00	0.55	53	0.00
IL-10	VEGF	0.43	86	0.00	0.51	157	0.00	0.51	122	0.00
sIL-2Rα	VEGF	0.56	86	0.00	0.43	157	0.00	0.39	122	0.00
IL-12p40	VEGF	0.63	86	0.00	0.52	157	0.00	0.58	122	0.00
IL-1Ra	VEGF	0.10	86	0.42	0.06	157	0.46	0.07	122	0.44
IL-1b	VEGF	0.49	86	0.00	0.56	157	0.00	0.53	122	0.00
IL-1a	VEGF	0.39	86	0.00	0.40	157	0.00	0.41	122	0.00
IL-2	VEGF	0.59	86	0.00	0.58	157	0.00	0.51	122	0.00
IL-6	VEGF	0.39	86	0.00	0.39	157	0.00	0.46	122	0.00
IL-17	VEGF	0.52	86	0.00	0.63	156	0.00	0.60	120	0.00
IL-12p70	VEGF	0.67	31	0.00	0.60	73	0.00	0.69	53	0.00
TNF-α	VEGF	0.21	86	0.07	0.10	157	0.22	0.14	122	0.13
IL-8	VEGF	0.52	31	0.00	0.50	73	0.00	0.68	53	0.00
Eotaxin	VEGF	0.50	86	0.00	0.42	157	0.00	0.42	122	0.00
MIP-1β	VEGF	0.32	86	0.00	0.26	157	0.00	0.20	122	0.04
MCP-1	VEGF	0.32	86	0.00	0.33	157	0.00	0.26	122	0.00
IP-10	VEGF	0.36	86	0.00	0.26	157	0.00	0.21	122	0.02
IFN-γ	VEGF	0.84	31	0.00	0.39	73	0.00	0.64	53	0.00
MIP-1α	VEGF	0.19	86	0.09	0.14	157	0.10	0.14	122	0.15

Abbreviations: IFN-γ, interferon gamma; IL, interleukin; IP-10, IFN-γ-inducible protein; LOD, limit of detection; MCP-1, monocyte chemoattractant protein-1; MIP-1α, macrophage inflammatory protein-1 α; MIP-1β, macrophage inflammatory protein-1 β; PRINCESA, Pregnancy Research on Inflammation, Nutrition, & City Environment: Systematic Analyses sIL-2Rα, soluble IL-2 receptor α; TNF-α, tumor necrosis factor α; VEGF, vascular endothelial growth factor.

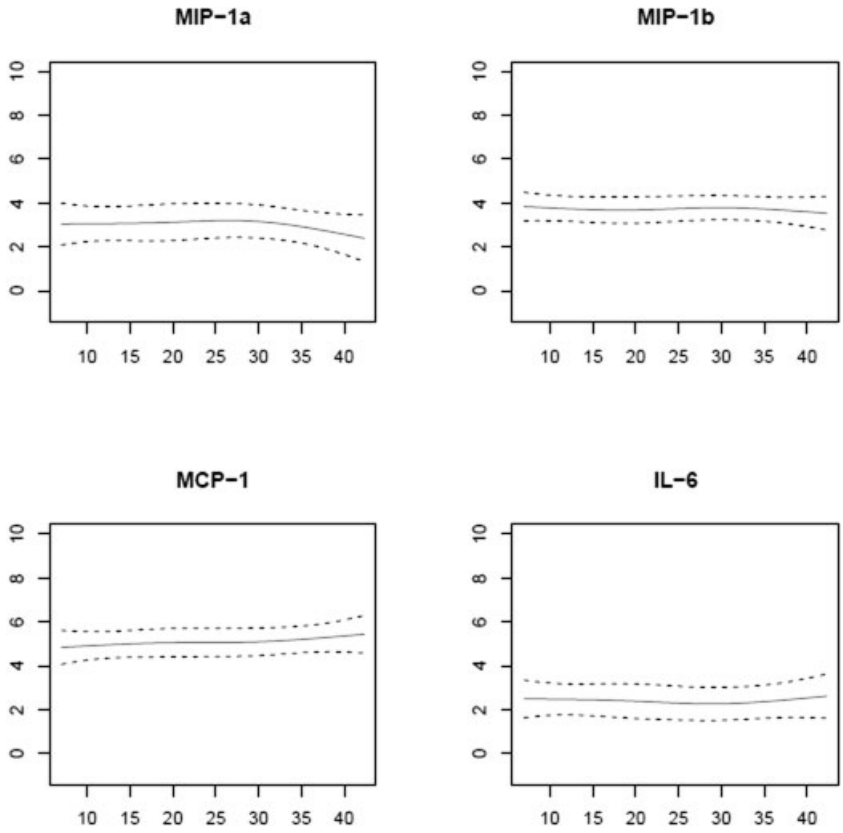
[a]False discovery rate based on Benjamini–Hochberg corrections for multiple testing.



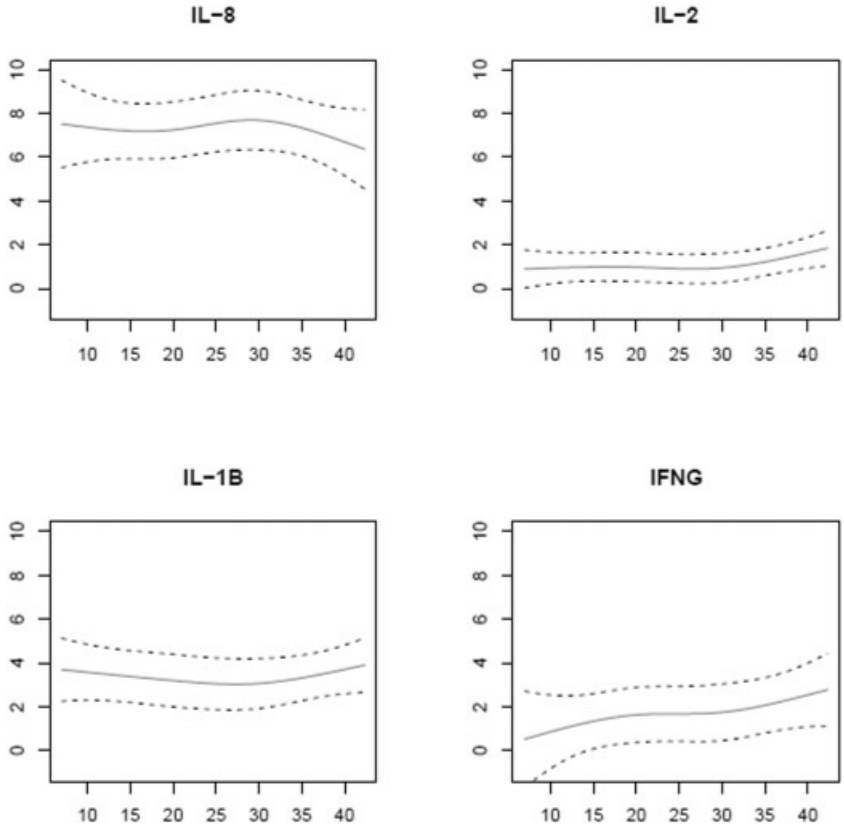
Supplementary Appendix 7A Infection adjusted patterns of IL-1α, TNF-α, IL-12p70, and sIL-2Rα (Tobit regression models). *Y*-axis denotes log-transformed cytokine concentrations (in pg/mL) and the *X*-axis indicates gestational weeks. IL, interleukin; sIL-2Rα, soluble IL-2 receptor α; TNF-α, tumor necrosis factor α.



Supplementary Appendix 7B Infection adjusted patterns of eotaxin, IP-10, VEGF, and IL-17 (Tobit regression models). *Y*-axis denotes log-transformed cytokine concentrations (in pg/mL) and the *X*-axis indicates gestational weeks. IL, interleukin; IP-10, IFN-γ-inducible protein; VEGF, vascular endothelial growth factor.



Supplementary Appendix 7C Infection adjusted patterns of MIP-1α, MIP-1β, MCP-1, and IL-6 (Tobit regression models). *Y*-axis denotes log-transformed cytokine concentrations (in pg/mL) and the *X*-axis indicates gestational weeks. IL, interleukin; MCP-1, monocyte chemoattractant protein-1; MIP-1α, macrophage inflammatory protein-1 α; MIP-1β, macrophage inflammatory protein-1 β.



Supplementary Appendix 7D Infection adjusted patterns of IL-8, IL-2, IL-1β, and IFN-γ (Tobit regression models). Y-axis denotes log transformed cytokine concentrations (in pg/mL) and the x-axis indicates gestational weeks. IFN-γ, interferon gamma; IL, interleukin.