

Supplementary Table 1. Effect estimates (95% confidence intervals) for age at stool collection from univariate linear regression

Outcome	Pregnancy Population (n = 18)	Delivery Population (n = 24)
Shannon Index	0.48 (-0.65, 1.6)	-0.28 (-1.16, 0.59)
Faith's Phylogenetic Diversity	2.66 (-5.21, 10.53)	0.05 (-9.16, 9.27)

Supplementary Table 2. Effect estimates (95% confidence intervals) for model covariates from linear regression

Outcome	Model Adjustment*	Pregnancy Population (n = 18)		Delivery Population (n = 24)	
		Delivery Mode	Socioeconomic Status	Delivery Mode	Socioeconomic Status
Shannon Index	Univariate	0.12 (-0.77, 1)	-0.3 (-0.95, 0.35)	0.43 (-0.03, 0.9)	-0.23 (-0.68, 0.21)
	PBDE-47	0.2 (-0.73, 1.13)	-0.39 (-1.07, 0.3)	0.44 (-0.03, 0.92)	-0.25 (-0.69, 0.19)
	PBDE-99	0.09 (-0.87, 1.04)	-0.32 (-1.05, 0.4)	0.45 (-0.03, 0.93)	-0.26 (-0.7, 0.18)
	PBDE-100	0.08 (-0.86, 1.01)	-0.31 (-1.01, 0.39)	0.45 (-0.03, 0.93)	-0.25 (-0.69, 0.18)
	PBDE-153	0.09 (-0.86, 1.04)	-0.27 (-0.98, 0.44)	0.46 (-0.01, 0.93)	-0.25 (-0.67, 0.18)
	PBDE Sum	0.09 (-0.84, 1.03)	-0.3 (-0.99, 0.39)	0.45 (-0.03, 0.92)	-0.25 (-0.69, 0.19)
	PCB-138	0.06 (-0.88, 1)	-0.29 (-1.01, 0.42)	0.4 (-0.08, 0.87)	-0.23 (-0.66, 0.19)
	PCB-153	0.05 (-0.9, 1)	-0.29 (-1.06, 0.49)	0.43 (-0.05, 0.91)	-0.24 (-0.67, 0.19)
	PCB-180	0.04 (-0.9, 0.98)	-0.25 (-0.98, 0.48)	0.48 (0, 0.96)	-0.27 (-0.7, 0.16)
	PCB Sum	0.05 (-0.9, 0.99)	-0.27 (-1.01, 0.47)	0.43 (-0.05, 0.9)	-0.24 (-0.67, 0.18)
Faith's Phylogenetic Diversity	Univariate	0.37 (-5.87, 6.61)	-6.22 (-9.74, -2.71)	-0.1 (-5.3, 5.1)	-6.43 (-10.34, -2.52)
	PBDE-47	-0.37 (-5.54, 4.8)	-6.66 (-10.47, -2.84)	0.01 (-4.48, 4.5)	-6.21 (-10.34, -2.07)
	PBDE-99	-0.22 (-5.07, 4.62)	-7.03 (-10.71, -3.35)	0.02 (-4.46, 4.5)	-6.2 (-10.34, -2.06)
	PBDE-100	-1.05 (-6.09, 3.99)	-6.22 (-9.97, -2.47)	-0.35 (-4.79, 4.08)	-6.18 (-10.17, -2.19)
	PBDE-153	-1.55 (-6.39, 3.29)	-6.84 (-10.45, -3.22)	0.28 (-4.19, 4.75)	-6.43 (-10.49, -2.36)
	PBDE Sum	-1.14 (-6.18, 3.9)	-6.31 (-10.04, -2.59)	-0.09 (-4.55, 4.36)	-6.17 (-10.24, -2.1)
	PCB-138	-0.8 (-5.86, 4.26)	-6.51 (-10.37, -2.66)	-0.26 (-4.8, 4.28)	-6.31 (-10.36, -2.27)
	PCB-153	-0.49 (-5.45, 4.47)	-7.23 (-11.27, -3.18)	-0.04 (-4.55, 4.46)	-6.31 (-10.4, -2.23)
	PCB-180	-0.89 (-5.99, 4.21)	-6.34 (-10.31, -2.37)	-0.2 (-4.78, 4.38)	-6.23 (-10.33, -2.12)
	PCB Sum	-0.76 (-5.83, 4.32)	-6.63 (-10.62, -2.65)	0.05 (-4.45, 4.55)	-6.4 (-10.48, -2.32)

* Models adjusting for exposures of interest also adjust for the other covariate

Supplementary Table 3. Comparison of effect estimates (95% confidence intervals) for exposures z-standardized and log transformed before z-standardization from linear regression models adjusting for delivery mode and socioeconomic status

Outcome	Exposure	Pregnancy Population (n = 18)		Delivery Population (n = 24)	
		Z-transformed	Logged and z-standardized	Z-transformed	Logged and z-standardized
Shannon Index	PBDE-47	0.38 (-0.29, 0.51)	0.12 (-0.27, 0.51)	0 (-0.33, 0.28)	0.05 (-0.17, 0.28)
	PBDE-99	-0.15 (-1.07, 0.4)	0.04 (-0.32, 0.4)	0.03 (-0.31, 0.41)	0.21 (0, 0.41)
	PBDE-100	0.09 (-0.37, 0.59)	0.26 (-0.07, 0.59)	0.01 (-0.22, 0.22)	-0.01 (-0.23, 0.22)
	PBDE-153	0.17 (-0.78, 0.52)	0.17 (-0.19, 0.52)	-0.33 (-1.21, 0.28)	0.06 (-0.17, 0.28)
	PBDE Sum	0.06 (-0.16, 0.16)	0.06 (-0.05, 0.16)	0 (-0.09, 0.11)	0.04 (-0.04, 0.11)
	PCB-138	-0.01 (-0.89, 0.54)	0.18 (-0.18, 0.54)	0.06 (-0.07, 0.23)	0 (-0.24, 0.23)
	PCB-153	-0.04 (-1.5, 0.56)	0.13 (-0.3, 0.56)	0.03 (-0.15, 0.18)	-0.05 (-0.29, 0.18)
	PCB-180	-0.17 (-1.08, 0.55)	0.17 (-0.2, 0.55)	0.09 (-0.19, 0.36)	0.15 (-0.07, 0.36)
	PCB Sum	-0.03 (-0.42, 0.35)	0.15 (-0.05, 0.35)	0.02 (-0.04, 0.13)	0.02 (-0.09, 0.13)
Faith's Phylogenetic Diversity	PBDE-47	1.4 (-2.31, 1.98)	-0.15 (-2.29, 1.98)	-0.92 (-3.97, 2.14)	0 (-2.14, 2.14)
	PBDE-99	-3.39 (-8.12, 0.99)	-0.9 (-2.8, 0.99)	-0.98 (-4.17, 2.34)	0.21 (-1.92, 2.34)
	PBDE-100	-0.75 (-3.26, 2.23)	0.28 (-1.66, 2.23)	-1.26 (-3.38, 2.86)	0.76 (-1.34, 2.86)
	PBDE-153	-3.48 (-8.34, 1.58)	-0.38 (-2.35, 1.58)	-2.47 (-10.78, 0.71)	-1.34 (-3.39, 0.71)
	PBDE Sum	-0.43 (-1.65, 0.5)	-0.11 (-0.72, 0.5)	-0.38 (-1.24, 0.68)	-0.04 (-0.77, 0.68)
	PCB-138	1.06 (-3.7, 3.06)	1.11 (-0.83, 3.06)	0.53 (-0.72, 1.7)	-0.51 (-2.73, 1.7)
	PCB-153	3.98 (-3.66, 2.76)	0.42 (-1.92, 2.76)	0.53 (-1.18, 2.08)	-0.16 (-2.4, 2.08)
	PCB-180	0.05 (-4.91, 2.39)	0.3 (-1.78, 2.39)	-0.89 (-3.54, 0.96)	-1.15 (-3.25, 0.96)
	PCB Sum	0.48 (-1.58, 1.73)	0.59 (-0.56, 1.73)	0.15 (-0.48, 0.61)	-0.39 (-1.39, 0.61)