

Supplementary Table 1. Natural Direct, Natural Indirect, and Total Effects of Maternal Pre-Pregnancy Overweight/Obesity on Child's Overweight/Obesity for Measures of Birth Anthropometry and in the Presence of Multiple Mediators among Offspring Born Full-Term^{a,b}

	Birth anthropometry		Birth anthropometry + gestational weight gain		Birth anthropometry + gestational diabetes		Birth anthropometry + hypertensive disorders of pregnancy	
	OR (95% CI)	Percent Mediated	OR (95% CI)	Percent Mediated	OR (95% CI)	Percent Mediated	OR (95% CI)	Percent Mediated
Birthweight								
Natural direct effect	1.63 (1.27, 2.08)		1.65 (1.28, 2.10)		1.62 (1.26, 2.04)		1.61 (1.25, 2.06)	
Natural indirect effect	1.07 (1.03, 1.12)	16.20%	1.07 (1.02, 1.12)	14.68%	1.08 (1.03, 1.12)	16.99%	1.09 (1.03, 1.15)	19.08%
Total effect	1.75 (1.37, 2.24)		1.76 (1.37, 2.24)		1.75 (1.36, 2.20)		1.75 (1.36, 2.24)	
Birth Length								
Natural direct effect	1.73 (1.37, 2.22)		1.76 (1.38, 2.24)		1.72 (1.33, 2.20)		1.72 (1.35, 2.18)	
Natural indirect effect	1.02 (1.00, 1.04)	4.22%	1.01 (0.97, 1.04)	1.43%	1.02 (1.00, 1.05)	5.55%	1.03 (0.99, 1.07)	6.61%
Total effect	1.77 (1.39, 2.25)		1.77 (1.39, 2.26)		1.76 (1.36, 2.25)		1.77 (1.39, 2.24)	
Birth Head Circumference								
Natural direct effect	1.66 (1.28, 2.13)		1.68 (1.31, 2.15)		1.63 (1.27, 2.09)		1.64 (1.26, 2.08)	
Natural indirect effect	1.04 (1.01, 1.07)	9.81%	1.03 (0.99, 1.08)	7.23%	1.05 (1.01, 1.09)	11.68%	1.06 (1.01, 1.10)	12.50%
Total effect	1.73 (1.33, 2.22)		1.74 (1.36, 2.21)		1.71 (1.34, 2.19)		1.73 (1.33, 2.19)	
Birth Ponderal Index								
Natural direct effect	1.75 (1.36, 2.24)		1.77 (1.37, 2.25)		1.74 (1.3, 2.20)		1.72 (1.33, 2.18)	
Natural indirect effect	1.01 (0.99, 1.03)	3.13%	1.01 (0.97, 1.04)	1.17%	1.02 (0.99, 1.04)	4.05%	1.03 (0.99, 1.07)	7.08%
Total effect	1.77 (1.36, 2.27)		1.77 (1.38, 2.26)		1.77 (1.38, 2.24)		1.77 (1.38, 2.24)	
Small-for-Gestational-Age								
Natural direct effect	1.64 (1.25, 2.12)		1.68 (1.29, 2.15)		1.63 (1.24, 2.09)		1.63 (1.26, 2.08)	
Natural indirect effect	1.01 (1.00, 1.03)	3.62%	1.00 (0.97, 1.04)	0.37%	1.02 (0.99, 1.05)	5.29%	1.03 (0.98, 1.07)	6.20%
Total effect	1.66 (1.27, 2.15)		1.68 (1.30, 2.15)		1.66 (1.27, 2.13)		1.67 (1.30, 2.13)	
Large-for-Gestational-Age								
Natural direct effect	1.81 (1.38, 2.38)		1.85 (1.42, 2.40)		1.80 (1.37, 2.35)		--	
Natural indirect effect	1.02 (0.99, 1.06)	4.96%	1.01 (0.96, 1.06)	1.64%	1.03 (0.99, 1.07)	6.75%	--	--
Total effect	1.86 (1.41, 2.39)		1.87 (1.43, 2.41)		1.86 (1.42, 2.41)		--	

^aModel adjusted for maternal & child sociodemographics (maternal age, maternal education, maternal insurance, maternal smoking, first birth, child's sex, and child's age)

^bn=3661 mother-child dyads with children born full-term (≥37 weeks) examined using imputation-based methods, which fit a working model for the outcome mean

Supplementary Table 2. Natural Direct, Natural Indirect, and Total Effects of Maternal Pre-Pregnancy Obesity on Child's Obesity for Measures of Birth Anthropometry and in the Presence of Multiple Mediators^{a,b}

	Birth anthropometry		Birth anthropometry + gestational weight gain		Birth anthropometry + gestational diabetes		Birth anthropometry + hypertensive disorders of pregnancy	
	OR (95% CI)	Percent Mediated	OR (95% CI)	Percent Mediated	OR (95% CI)	Percent Mediated	OR (95% CI)	Percent Mediated
Birthweight								
Natural direct effect	2.91 (1.95, 4.17)		3.07 (2.07, 4.40)		2.89 (1.92, 4.15)		2.84 (1.86, 4.16)	
Natural indirect effect	1.12 (1.04, 1.20)	15.79%	1.07 (0.97, 1.18)	9.73%	1.13 (1.04, 1.22)	16.39%	1.15 (1.03, 1.27)	18.56%
Total effect	3.27 (2.20, 4.64)		3.29 (2.23, 4.68)		3.26 (2.18, 4.63)		3.26 (2.15, 4.71)	
Birth Length								
Natural direct effect	3.08 (2.11, 4.38)		3.25 (2.21, 4.67)		3.06 (2.10, 4.44)		3.01 (2.04, 4.33)	
Natural indirect effect	1.05 (1.00, 1.09)	6.27%	1.00 (0.93, 1.07)	--	1.05 (0.99, 1.12)	7.33%	1.06 (0.98, 1.15)	8.70%
Total effect	3.22 (2.21, 4.55)		3.25 (2.22, 4.64)		3.22 (2.21, 4.64)		3.21 (2.18, 4.59)	
Birth Head Circumference								
Natural direct effect	3.11 (2.10, 4.42)		3.29 (2.26, 4.62)		3.03 (2.02, 4.45)		3.08 (2.06, 4.43)	
Natural indirect effect	1.04 (0.99, 1.09)	5.35%	0.99 (0.91, 1.06)	--	1.05 (0.98, 1.12)	6.95%	1.05 (0.96, 1.13)	6.34%
Total effect	3.23 (2.19, 4.57)		3.24 (2.23, 4.54)		3.18 (2.12, 4.64)		3.22 (2.15, 4.6)	
Birth Ponderal Index								
Natural direct effect	3.26 (2.21, 4.51)		3.42 (2.30, 4.87)		3.24 (2.19, 4.57)		3.2 (2.17, 4.55)	
Natural indirect effect	1.02 (0.98, 1.05)	2.28%	0.97 (0.91, 1.04)	--	1.02 (0.98, 1.07)	3.00%	1.04 (0.96, 1.11)	4.87%
Total effect	3.31 (2.25, 4.59)		3.31 (2.23, 4.75)		3.31 (2.24, 4.67)		3.31 (2.24, 4.7)	
Small-for-Gestational-Age								
Natural direct effect	3.12 (2.08, 4.40)		3.34 (2.22, 4.82)		3.07 (2.06, 4.42)		3.07 (2.01, 4.51)	
Natural indirect effect	1.03 (0.99, 1.06)	4.03%	0.96 (0.90, 1.04)	--	1.04 (0.99, 1.10)	5.81%	1.05 (0.96, 1.14)	6.76%
Total effect	3.21 (2.14, 4.52)		3.22 (2.14, 4.69)		3.20 (2.14, 4.61)		3.22 (2.10, 4.74)	
Large-for-Gestational-Age								
Natural direct effect	3.26 (2.10, 4.83)		3.50 (2.31, 5.13)		3.20 (2.11, 4.72)		3.17 (2.05, 4.71)	
Natural indirect effect	1.04 (0.98, 1.11)	5.61%	0.98 (0.88, 1.07)	--	1.06 (0.98, 1.14)	8.02%	1.08 (0.98, 1.18)	9.90%
Total effect	3.39 (2.19, 5.01)		3.41 (2.27, 4.96)		3.39 (2.25, 4.99)		3.41 (2.21, 5.04)	

^aModel adjusted for maternal & child sociodemographics (maternal age, maternal education, maternal insurance, maternal smoking, first birth, child's sex, and child's age)

^bn=2820 obese or normal weight mother-children dyads examined using imputation-based methods, which fit a working model for the outcome mean

Supplementary Table 3. Natural Direct, Natural Indirect, and Total Effects of Maternal Pre-Pregnancy Overweight/Obesity on Child's Overweight/Obesity for Measures of Birth Anthropometry and in the Presence of Multiple Mediators among African Americans^{a,b}

	Birth anthropometry		Birth anthropometry + gestational weight gain		Birth anthropometry + gestational diabetes		Birth anthropometry + hypertensive disorders of pregnancy	
	OR (95% CI)	Percent Mediated	OR (95% CI)	Percent Mediated	OR (95% CI)	Percent Mediated	OR (95% CI)	Percent Mediated
Birthweight								
Natural direct effect	1.68 (1.33, 2.10)		1.68 (1.32, 2.12)		1.68 (1.33, 2.10)		1.66 (1.31, 2.09)	
Natural indirect effect	1.06 (1.02, 1.09)	12.60%	1.06 (1.01, 1.11)	12.79%	1.06 (1.02, 1.10)	13.01%	1.07 (1.02, 1.12)	14.44%
Total effect	1.78 (1.40, 2.22)		1.78 (1.40, 2.24)		1.78 (1.41, 2.22)		1.78 (1.40, 2.22)	
Birth Length								
Natural direct effect	1.74 (1.39, 2.20)		1.76 (1.39, 2.20)		1.73 (1.38, 2.16)		1.73 (1.36, 2.17)	
Natural indirect effect	1.02 (1.00, 1.04)	4.05%	1.01 (0.98, 1.05)	2.76%	1.02 (0.99, 1.05)	4.78%	1.02 (0.99, 1.06)	5.48%
Total effect	1.77 (1.42, 2.24)		1.78 (1.41, 2.23)		1.77 (1.41, 2.20)		1.77 (1.40, 2.22)	
Birth Head Circumference								
Natural direct effect	1.71 (1.35, 2.14)		1.71 (1.36, 2.13)		1.69 (1.33, 2.15)		1.7 (1.33, 2.14)	
Natural indirect effect	1.03 (1.00, 1.05)	6.11%	1.02 (0.98, 1.06)	5.13%	1.03 (1.00, 1.06)	6.94%	1.03 (0.99, 1.07)	7.22%
Total effect	1.75 (1.39, 2.19)		1.75 (1.40, 2.17)		1.74 (1.37, 2.22)		1.75 (1.37, 2.2)	
Birth Ponderal Index								
Natural direct effect	1.76 (1.38, 2.21)		1.77 (1.39, 2.23)		1.76 (1.39, 2.20)		1.75 (1.38, 2.19)	
Natural indirect effect	1.01 (0.99, 1.02)	1.83%	1.00 (0.97, 1.03)	0.49%	1.01 (0.99, 1.03)	2.62%	1.02 (0.98, 1.05)	4.09%
Total effect	1.78 (1.39, 2.23)		1.78 (1.40, 2.23)		1.78 (1.40, 2.22)		1.78 (1.40, 2.22)	
Small-for-Gestational-Age								
Natural direct effect	1.72 (1.34, 2.16)		1.74 (1.37, 2.2)		1.71 (1.34, 2.20)		1.72 (1.34, 2.20)	
Natural indirect effect	1.01 (0.99, 1.02)	1.84%	1.00 (0.97, 1.04)	0.22%	1.01 (0.99, 1.04)	2.97%	1.01 (0.98, 1.05)	3.43%
Total effect	1.73 (1.35, 2.18)		1.74 (1.38, 2.2)		1.73 (1.36, 2.23)		1.74 (1.36, 2.23)	
Large-for-Gestational-Age								
Natural direct effect	1.83 (1.41, 2.33)		1.85 (1.44, 2.38)		1.82 (1.40, 2.35)		--	
Natural indirect effect	1.02 (0.99, 1.05)	3.98%	1.01 (0.97, 1.05)	2.23%	1.02 (0.99, 1.06)	5.18%	--	--
Total effect	1.87 (1.44, 2.37)		1.87 (1.45, 2.40)		1.87 (1.43, 2.41)		--	

^aModel adjusted for maternal & child sociodemographics (maternal age, maternal education, maternal insurance, maternal smoking, first birth, child's sex, and child's age)

^bn=2376 African American mother-child dyads examined using imputation-based methods, which fit a working model for the outcome mean