

Web Table 1. Synergy Index (S) Values and 95% Confidence Intervals (CI) as a Test of Departures from Additivity by Race, Smoking, Parity, Age, or Height on Associations Between Gestational Weight Gain (GWG) and Adverse Pregnancy Outcomes (n=17,782), Magee-Womens Hospital Deliveries, Pittsburgh, Pennsylvania (2003-2008).

Association	Potential effect modifier									
	Smoking		Black race		Primiparity		Young age		Short stature	
	S	95% CI	S	95% CI	S	95% CI	S	95% CI	S	95% CI
Low GWG - SGA	1.2	1.1, 1.4	1.2	1.0, 1.4	1.2	1.03, 1.4	1.2	0.6, 1.8	1.2	0.9, 1.5
Low GWG - sPTB	1.6	1.2, 1.9	1.8	0.5, 3.1	0.5	0, 1.0	0.3	0, 1.6	1.0	0.1, 1.9
Low GWG - iPTB	1.6	1.0, 2.1	2.1	0.8, 3.5	1.0	0.3, 1.7	0.4	0, 1.9	1.2	0, 2.9
High GWG - LGA	0.3	0.04, 0.6	0.6	0.3, 0.9	0.5	0.3, 0.6	1.1	0.5, 1.7	0.3	0.01, 0.7
High GWG - unplanned C/S	1.2	0.6, 1.8	0.9	0.5, 1.3	1.5	1.2, 1.8	0.6	0, 3.2	1.2	0.8, 1.6

C/S, cesarean delivery; GWG, gestational weight gain; iPTB, indicated preterm birth, LGA, large-for-gestational age; SGA, small-for-gestational age; sPTB, spontaneous preterm birth.

A synergy index of 1.0 implies no interaction (perfect additivity), <1 indicates antagonism, and >1 indicates synergy (24).

Bolded entries are those with confidence intervals that do not overlap 1.0.

Web Table 2. Risk Difference for at Least One Adverse Birth Outcome* Comparing Gestational Weight Gain at the 2009 Institute of Medicine Recommended Guidelines with Gestational Weight Gain at the Nadir of Subgroup Risk Curves (n=17,782), Magee-Womens Hospital Deliveries, Pittsburgh, Pennsylvania (2003-2008).

	At 2009 IOM guidelines			At nadir of risk curve			Unadjusted RD	95% CI	Adjusted** RD	95% CI
	% of IOM	GWG (kg)	Risk	% of IOM	GWG (kg)	Risk				
Smokers	100%	13.3	0.401	147%	19.6	0.359	-0.041	-0.092, 0.010	-0.032	-0.083, 0.020
Non-smokers	100%	13.3	0.267	100%	13.3	0.267	0		0	
Black women	100%	13.3	0.377	147%	19.6	0.328	-0.049	-0.095, -0.003	-0.044	-0.090, 0.002
White women	100%	13.3	0.265	100%	13.3	0.265	0		0	
Primiparous	100%	13.3	0.328	110%	14.6	0.324	-0.004	-0.008, -0.001	-0.003	-0.007, 0.001
Multiparous	100%	13.3	0.242	102%	13.4	0.242	0.001	-0.001, 0.001	0.001	-0.001, 0.001
13-19 years	100%	13.3	0.350	137%	18.2	0.311	-0.037	-0.091, 0.018	-0.032	-0.088, 0.023
≥20 years	100%	13.3	0.276	102%	13.6	0.276	0.001	-0.001, 0.001	0.001	-0.001, 0.001
<157 cm	100%	13.3	0.393	112%	14.9	0.385	-0.004	-0.018, 0.010	-0.006	-0.021, 0.008
≥157 cm	100%	13.3	0.265	102%	13.6	0.265	0.001	-0.001, 0.001	0.001	-0.001, 0.001

GWG, gestational weight gain; IOM, Institute of Medicine 2009 guidelines (1); RD, risk difference; CI, confidence interval

* Composite outcome of any one of following adverse birth outcomes: small-for-gestational-age birth, large-for-gestational-age birth, indicated preterm birth, spontaneous preterm birth, unplanned Cesarean delivery.

**Adjusted for maternal race/ethnicity, education, age, height, parity, smoking, provider type, marital status, and delivery year. The stratifying variable was not included in the model.