Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

Supplementary eTable 1. Comparison of Analytic Sample and Mother-Child Pairs Excluded from Analysis

	Total Included in Sample	Excluded
Birthing parent-Child Pairs, N	2,854	7,707
Child Characteristics		
Birth year		
2007-2011	952 (33.4%)	2,898 (37.6%)
2012-2016	1,275 (44.7%)	3,754 (48.7%)
2017-2021	627 (22.0%)	1,055 (13.7%)
Child sex (at birth), female	1,390 (48.7%)	3,712 (48.2%)
Child race/ethnicity		
White	664 (23.3%)	4,377 (56.8%)
Black	640 (22.4%)	822 (10.7%)
Asian, Native Hawaiian or Pacific Islander	225 (7.9%)	281 (3.6%)
Hispanic	1,022 (35.8%)	1,185 (15.4%)
Other or multiracial	224 (7.8%)	983 (12.8%)
Missing	79 (2.8%)	59 (0.8%)
Birthweight (grams)	3325 (3040-3650)	3430 (3130-3742)
Size at birth		
Appropriate for gestational age	2,294 (80.4%)	5,812 (75.4%)
Small for gestational age	155 (5.4%)	298 (3.9%)
Large for gestational age	404 (14.2%)	1,509 (19.6%)
Missing	<5	88 (1.1%)
Preterm birth	138 (4.8%)	326 (4.2%)
Maternal Characteristics		
Maternal age at delivery		
<25	586 (20.5%)	1,370 (17.8%)
25-29	763 (26.7%)	2,113 (27.4%)
30-34	917 (32.1%)	2,531 (32.8%)
35+	588 (20.6%)	1,495 (19.4%)
Pre-pregnancy BMI		
Normal (18.5-24.9, kg/m2)	1,156 (40.5%)	3,092 (40.1%)
Underweight (<18.5, kg/m2)	74 (2.6%)	176 (2.3%)
Overweight (25-29.9, kg/m2)	767 (26.9%)	1,741 (22.6%)
Obese (30+, kg/m2)	844 (29.6%)	1,724 (22.4%)
Missing	13 (0.5%)	974 (12.6%)
Maternal educational status, highest		
<College degree	1,562 (54.7%)	1,212 (15.7%)
College degree	744 (26.1%)	1,029 (13.4%)
Graduate degree	501 (17.6%)	866 (11.2%)
Missing	47 (1.6%)	4,600 (59.7%)
Prenatal tobacco/nicotine use	135 (4.7%)	999 (13.0%)
Missing	<5	655 (8.5%)

Supplemental Table 2. Description of Dietary Assessments by Cohort

		1st Trimester			2nd Trimester			3rd Trimester		
Cohort	Diet Assessment	24-hr	FFQ	Total	24-hr	FFQ	Total	24-hr	FFQ	Total
1	ASA24[1] (2011)	48	0	48	237	0	237	5	0	5
2	ASA24[1] (2016)				<5	0	<5	13	0	13
3	Block-Bodnar Questionnaire for Women of Reproductive Age	0	17	17	0	12	12			
4	Block-Bodnar Questionnaire for Women of Reproductive Age	0	846	846	0	423	423	0	<5	<5
5	ASA24[1] (2016) ASA24[1] (2018)				<5	0	<5	237	0	237
6	Block-Bodnar Questionnaire for Women of Reproductive Age				0	689	689	0	96	96
7	Block-Bodnar Questionnaire for Women of Reproductive Age				0	9	9	0	8	8
8	Block-Bodnar Questionnaire for Women of Reproductive Age	0	24	24	0	80	80	0	90	90
	Total	48	887	935	<255	1213	<1468	255	<200	<455

Supplemental **Table 3.** Association between prenatal Alternative Healthy Eating Index Pregnancy (AHEI-P)[c] dietary pattern and size for gestational age at birth category

	Adjusted Odd ration (95% CI)[a]
Size for Gestational Age	High Alternative Healthy Eating Index (AHEI)[c]
	n=2711
Appropriate	Reference
Small[a]	0.86 [0.71,1.04]
Large[b]	0.73 [0.49,1.09]

[a] Multinomial logistic regression models adjusted for maternal education, child sex, maternal age at delivery, pre-pregnancy Body Mass Index (BMI), child race and ethnicity, prenatal tobacco use, dietary assessment (food frequency questionnaire or 24-hour recall), and trimester of dietary assessment. Robust standard errors clustered on cohort were included in the estimate of the to account for correlation of children within the same cohort.
[b] High AHEI-P was defined as a score >76.3% using the mean of the highest quartile cut-off
[c] using Intergrowth-21st reference less than and not including 10th percentile; b: using Intergrowth-21st reference greater than and not including 90th percentile.

Supplemental Table 4. Association between prenatal Empirical Dietary Inflammatory Pattern (EDIP)[a] and size for gestational age at birth category and infant growth at 6, 12 and 24 months, by quartile of EDIP.

	Birthweight		
Size for gestational age	n=2159		
Small for gestational age[b]*			
Most Inflammatory (Q4)	REF		
Inflammatory (Q3)	0.90 [0.63, 1.30]		
Less Inflammatory (Q2)	1.06 [0.67, 1.69]		
Least Inflammatory (Q1)	0.83 [0.62, 1.12]		
Large for gestational age[c]*			
Most Inflammatory (Q4)	REF		
Inflammatory (Q3)	0.89 [0.51, 1.55]		
Less Inflammatory (Q2)	0.73 [0.46, 1.17]		
Least Inflammatory (Q1)	0.90 [0.71, 1.15]		
	6 months	12 months	24 months
	n=1303	n=1602	n=1115
Slow growth**			
Most Inflammatory (Q4)	REF	REF	REF
Inflammatory (Q3)	0.88[0.69, 1.11]	1.11 [0.94, 1.30]	0.91 [0.72, 1.16]
Less Inflammatory (Q2)	0.77 [0.57, 1.03]	1.31 [1.01, 1.69]	1.23 [0.93, 1.63]
Least Inflammatory (Q1)	0.74 [0.64, 0.86]	1.38 [1.12, 1.69]	1.14 [0.91, 1.44]

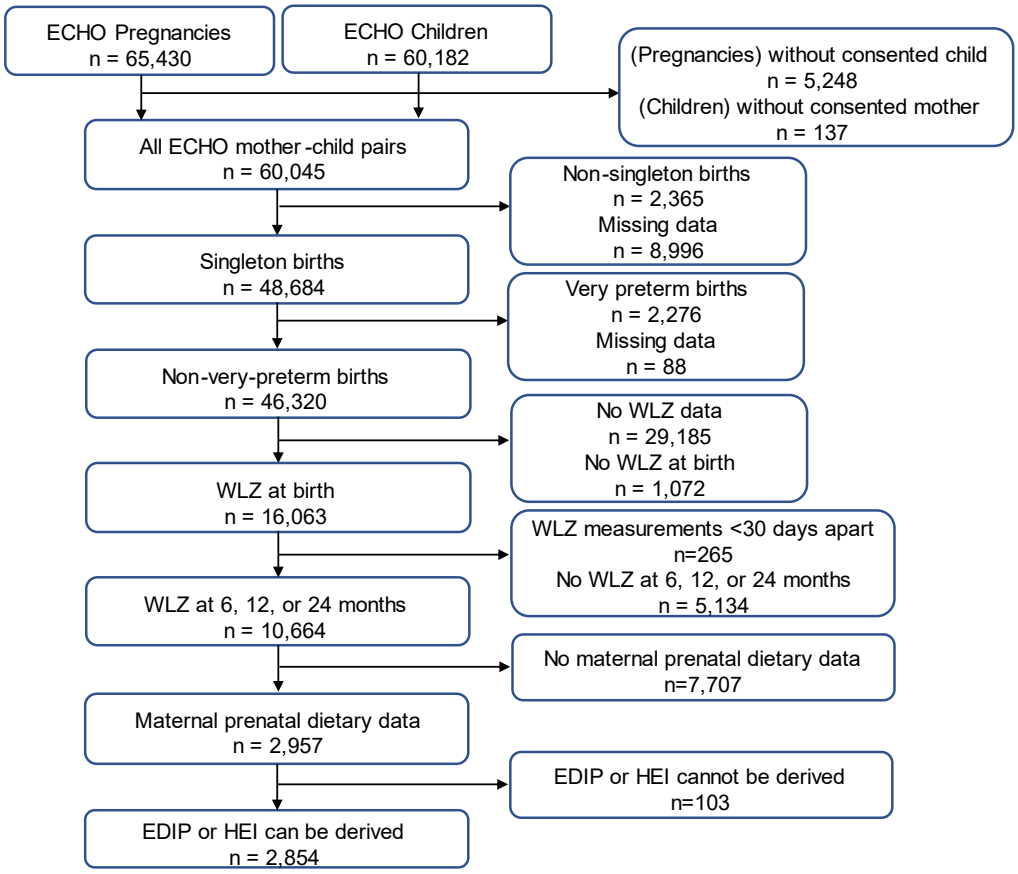
Rapid growth**			
Most Inflammatory (Q4)	REF	REF	REF
Inflammatory (Q3)	0.92 [0.67, 1.27]	0.88 [0.59, 1.33]	1.01 [0.58, 1.76]
Less Inflammatory (Q2)	0.87 [0.81, 0.95]	0.95 [0.83, 1.10]	1.01 [0.93, 1.10]
Least Inflammatory (Q1)	0.91 [0.78, 1.07]	1.00 [0.73, 1.38]	1.12 [0.85, 1.48]

[a] EDIP quartile, mean(SD): Most Inflammatory: 64.7(0.6); Inflammatory 64.0(0.1); Less Inflammatory: 63.8(0.1); Least Inflammatory: 63.5(0.3)

*Reference is Appropriate for Gestational Age [b]: using Intergrowth-21st reference less than and not including 10th percentile; [c:] using Intergrowth-21st reference greater than and not including 90th percentile. Multinomial logistic regression models adjusted for maternal education, child sex, maternal age at delivery, pre-pregnancy Body Mass Index (BMI), child race and ethnicity, prenatal tobacco use, dietary assessment (food frequency questionnaire or 24-hour recall), and trimester of dietary assessment. Robust standard errors clustered on cohort were included in the estimate of the to account for correlation of children within the same cohort.

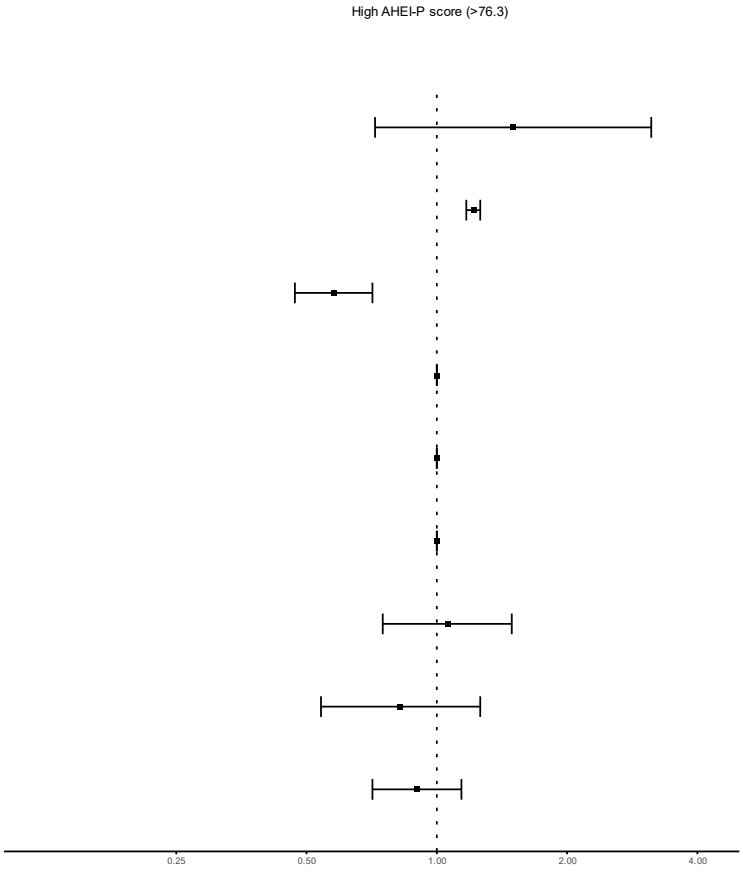
**Reference is Appropriate growth defined as a difference in weight-for-length z-score between birth and 6, 12, or 24 months of -0.67 to 0.67.

Supplemental Figure 1.



Supplemental Figure 2.

Model	aOR (95% CI)
Slow Growth 6 Months	1.50 (0.72–3.13)
Slow Growth 12 Months	1.22 (1.17–1.26)
Slow Growth 24 Months	0.58 (0.47–0.71)
Appropriate Growth 6 Months	Reference
Appropriate Growth 12 Months	Reference
Appropriate Growth 24 Months	Reference
Rapid Growth 6 Months	1.06 (0.75–1.49)
Rapid Growth 12 Months	0.82 (0.54–1.26)
Rapid Growth 24 Months	0.90 (0.71–1.14)



Supplemental Figure 3.

Model	aOR (95% CI)
Extremely Slow Growth 6 Months	1.59 (0.94–2.70)
Extremely Slow Growth 12 Months	0.84 (0.48–1.46)
Extremely Slow Growth 24 Months	0.58 (0.33–0.99)
Slow Growth 6 Months	1.40 (0.51–3.83)
Slow Growth 12 Months	1.49 (1.14–1.94)
Slow Growth 24 Months	0.59 (0.35–1.01)
Appropriate Growth 6 Months	Reference
Appropriate Growth 12 Months	Reference
Appropriate Growth 24 Months	Reference
Rapid Growth 6 Months	1.16 (1.03–1.31)
Rapid Growth 12 Months	0.94 (0.89–0.98)
Rapid Growth 24 Months	1.00 (0.63–1.58)
Extremely Rapid Growth 6 Months	1.00 (0.62–1.60)
Extremely Rapid Growth 12 Months	0.78 (0.43–1.41)
Extremely Rapid Growth 24 Months	0.86 (0.73–1.00)