

Appendix 1 – Path analysis results of the association between maternal exposure to stressful life events prior to conception and offspring overall health, special health care needs, and severe health conditions in early childhood through low birthweight

	<u>Fair or Poor Health</u>		<u>Special Health Care Needs</u>		<u>Severe Health Conditions</u>	
	β	95% CI	β	95% CI	β	95% CI
<u>Direct Effects</u>						
From PSLEs to LBW	0.74%	(-0.52, 1.99)	0.74%	(-0.52, 1.99)	0.74%	(-0.52, 1.99)
From PSLEs to CH at 9 mo	-0.78%	(-1.73, 0.16)	-0.84%	(-2.63, 0.94)	1.02%	(-1.20, 3.25)
From PSLEs to CH at 24 mo	0.52%	(-0.48, 1.51)	-0.58%	(-3.32, 2.17)	1.97%	(-0.71, 4.64)
From LBW to CH at 9 months	2.15%	(0.47, 3.84)	6.39%	(3.73, 9.04)	4.32%	(1.94, 6.71)
From LBW to CH at 24 months	2.40%	(0.62, 4.19)	3.87%	(0.51, 7.22)	3.61%	(0.76, 6.45)
From CH at 9 mo to CH at 24 mo	15.32%	(8.22, 22.41)	28.85%	(23.58, 34.11)	21.36%	(16.91, 25.80)
<u>Indirect Effects^a</u>						
PSLEs --> LBW --> CH at 9 mo	0.02%	(-0.01, 0.05)	0.05%	(-0.04, 0.13)	0.03%	(-0.03, 0.09)
PSLEs --> CH at 24 mo	-0.10%	(-0.27, 0.07)	-0.20%	(-0.74, 0.34)	0.25%	(-0.23, 0.73)
PSLEs --> CH at 9 mo --> CH at 24 mo	-0.12%	(-0.28, 0.04)	-0.24%	(-0.76, 0.27)	0.22%	(-0.26, 0.70)
PSLEs --> LBW --> CH at 24 mo	0.02%	(-0.01, 0.05)	0.03%	(-0.02, 0.08)	0.03%	(-0.02, 0.07)
PSLEs --> LBW --> CH at 9 mo --> CH at 24 mo	0.01%	(-0.01, 0.01)	0.01%	(-0.01, 0.04)	0.01%	(-0.01, 0.02)
<u>Model Fit Statistics</u>						
Chi-square statistic & p-value	23.1	<0.01	32.5	<0.01	29.9	<0.01
CFI	0.982		0.973		0.976	
RMSEA	0.015		0.019		0.018	

N=7,100. Weighted estimates. Beta coefficients reported as the percent change in the probability of having each child health outcome for a one-unit change in each independent variable. Models adjust for pregnancy complications, maternal chronic conditions, prepregnancy body mass index, initiation of prenatal care, plurality, parity, exposure to any stressful life event during pregnancy, maternal race/ethnicity, maternal age, marital status at birth, health insurance coverage, family socioeconomic status, and US region of residence (see Figure 1).

^aSpecific indirect effects are listed below the total indirect effects, which are in **bold**. *CI*, confidence interval; *PSLEs*, stressful life events prior to conception; *LBW*, low birthweight; *CH*, child health; *CFI*, comparative fit index; *RMSEA*, root mean square error of approximation.

Appendix 2 – Path analysis results of the association between maternal exposure to stressful life events prior to conception and offspring overall health, special health care needs, and severe health conditions in early childhood through very low birthweight, models comparing children born very low birthweight to children born low, normal, and high birthweight

	<u>Fair or Poor Health</u>		<u>Special Health Care Needs</u>		<u>Severe Health Conditions</u>	
	β	95% CI	β	95% CI	β	95% CI
<u>Direct Effects</u>						
From PSLEs to VLBW	0.39%	(0.14, 0.64)	0.39%	(0.14, 0.64)	0.39%	(0.14, 0.64)
From PSLEs to CH at 9 mo	-0.78%	(-1.70, 0.14)	-0.15%	(-1.92, 1.63)	1.10%	(-1.14, 3.34)
From PSLEs to CH at 24 mo	0.40%	(-0.54, 1.33)	-0.57%	(-3.04, 1.89)	1.90%	(-0.75, 4.55)
From VLBW to CH at 9 mo	5.11%	(2.79, 7.44)	26.30%	(22.50, 30.11)	8.27%	(5.55, 10.99)
From VLBW to CH at 24 mo	3.84%	(1.87, 5.82)	20.89%	(17.15, 24.64)	9.06%	(6.20, 11.92)
From CH at 9 mo to CH at 24 mo	14.65%	(8.36, 20.94)	29.90%	(24.96, 34.84)	21.98%	(17.73, 26.22)
<u>Indirect Effects^a</u>						
PSLEs --> VLBW --> CH at 9 mo	0.02%	(0.00, 0.04)	0.10%	(0.03, 0.17)	0.03%	(0.01, 0.06)
PSLEs --> CH at 24 mo	-0.10%	(-0.24, 0.05)	0.07%	(-0.48, 0.62)	0.28%	(-0.21, 0.78)
PSLEs --> CH at 9 mo --> CH at 24 mo	-0.11%	(-0.26, 0.03)	-0.04%	(-0.57, 0.49)	0.24%	(-0.25, 0.74)
PSLEs --> VLBW --> CH at 24 mo	0.02%	(0.00, 0.03)	0.08%	(0.03, 0.14)	0.04%	(0.01, 0.06)
PSLEs --> VLBW --> CH at 9 mo --> CH at 24 mo	0.01%	(0.00, 0.01)	0.03%	(0.01, 0.05)	0.01%	(0.00, 0.01)
<u>Model Fit Statistics</u>						
Chi-square statistic & p-value	12.6	0.18	15.4	0.08	9.7	0.37
CFI	0.995		0.992		0.999	
RMSEA	0.007		0.009		0.003	

N=8,600. Weighted estimates. Beta coefficients reported as the percent change in the probability of having each child health outcome for a one-unit change in each independent variable. Models adjust for pregnancy complications, maternal chronic conditions, prepregnancy body mass index, initiation of prenatal care, plurality, parity, exposure to any stressful life event during pregnancy, maternal race/ethnicity, maternal age, marital status at birth, health insurance coverage, family socioeconomic status, and US region of residence (see Figure 1).

^aSpecific indirect effects are listed below the total indirect effects, which are in **bold**. *CI*, confidence interval; *PSLEs*, stressful life events prior to conception; *VLBW*, very low birthweight; *CH*, child health; *CFI*, comparative fit index; *RMSEA*, root mean square error of approximation.

Appendix 3 – Type of stressful life events prior to conception (PSLEs), national data from the Early Childhood Longitudinal Study-Birth Cohort, 2001

Variable	%	% among women who experienced any PSLE
Stressful Life Events Prior to Conception		
None	80.3	
Any stressful life event prior to conception	19.7	100.0
1 event	17.3	
2 events	2.2	
≥3 events	0.2	
Type of Stressful Life Events Prior to Conception		
Death of mother prior to conception		
No	97.3	86.4
Yes	2.7	13.6
Death of father prior to conception		
No	94.3	71.3
Yes	5.7	28.7
Death of a child		
Never	98.8	94.0
Ever	1.2	6.0
Divorced prior to conception		
No	89.5	47.1
Yes	10.4	52.9
Separated prior to conception		
No	98.2	91.0
Yes	1.8	9.0
Widowed prior to conception		
No	99.8	99.0
Yes	0.2	1.0
Experienced fertility problems		
Never	99.5	97.8
Ever	0.5	2.2

Note. Data are weighted percentages. Total (weighted) n = 3,749,401; total (unweighted) n = 8,600. National Center for Education Statistics rounding rules applied to unweighted numbers.